WEST VIRGINIA
SECRETARY OF STATE
KEN HECHLER
ADMINISTRATIVE LAW DIVISION

Form #3

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OFFICE OF WEST VIRGINIA SECRETARY OF STATE

NOTICE OF AGENCY APPROVAL OF A PROPOSED RULE

AND

FILING WITH THE LEGISLATIVE RULE-MAKING REVIEW COMMITTEE

AGENCY: DCL&ER, Division of Environmental Protecction TITLE NUMBER: 47

CITE AUTHORITY §20-5F-2b(b)

AMENDMENT TO AN EXISTING RULE: YES ____ NO X

IF YES, SERIES NUMBER OF RULE BEING AMENDED: _____

TITLE OF RULE BEING AMENDED: _____

_____

IF NO, SERIES NUMBER OF RULE BEING PROPOSED: 38D

TITLE OF RULE BEING PROPOSED: Sewage Sludge Management Regulation

_____

THE ABOVE PROPOSED LEGISLATIVE RULE HAVING GONE TO A PUBLIC HEARING OR A PUBLIC COMMENT PERIOD IS HEREBY APPROVED BY THE PROMULGATING AGENCY FOR FILING WITH THE SECRETARY OF STATE AND THE LEGISLATIVE RULE-MAKING REVIEW COMMITTEE FOR THEIR REVIEW.

David C. Callaghan, Director
Division of Environmental Protection

PREAMBLE TO A PROPOSED RULE CONCERNING A COMPREHENSIVE SEWAGE SLUDGE MANAGEMENT PROGRAM

AGENCY: Department of Commerce, Labor and Environmental Resources, Division of Environmental Protection

REGULATION: Title 47, Series 38D, "Sewage Sludge Management Regulations"

AUTHORITY: West Virginia Code §20-5F-2b(b)

ACTION: Filing of a Proposed Rule

SUMMARY: During the 1993 Legislative Session, Senate Bill No. 288 became effective April 10, 1993. This bill created Section 2b under existing Article 5F Chapter 20 of the West Virginia Code. The rules promulgated with this filing are necessary for implementation of a comprehensive program for the efficient and necessary regulation of sewage sludge in the State of West Virginia.

PREAMBLE TO A PROPOSED RULE
CONCERNING
SEWAGE SLUDGE MANAGEMENT REGULATIONS

AGENCY: Department of Commerce, Labor, and Environmental Resources; Division of Environmental Protection.

REGULATION: Title 47, Series 38D, "Sewage Sludge Management Regulations."

ACTION: Filing of an agency approved rule, filing with the Legislative Rule-Making Review Committee, and filing of an emergency rule.

SUMMARY: During the 1993 Legislative session, Senate Bill No. 288 amended §20-5F of the West Virginia Code, in part, by adding Section 2b. This section provided for the management of sewage sludge, and authorized the filing of rules along with their emergency filing. The filed rules implement a comprehensive sewage sludge management program in West Virginia.

DEPARTMENT OF COMMERCE, LABOR & ENVIRONMENTAL RESOURCES
OFFICE OF THE SECRETARY
State Capitol, Room M-146
Charleston, West Virginia 25305-0310
Telephone: (304) 558-0400
Fax No.: (304) 558-4983

GASTON CAPERTON
Governor

JOHN M. RANSON
Cabinet Secretary

May 24, 1993

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MAY 24 4 30 PM '93
OFFICE OF WEST VIRGINIA SECRETARY OF STATE

David C. Callaghan, Director
Division of Environmental Protection
10 McJunkin Road
Nitro, West Virginia 25143-2506

Re: Proposed Rule - Title 47, Series 38D (Sewage Sludge Management Regulations)

Dear Mr. Callaghan:

Pursuant to West Virginia Code Section 5F-2-2(a)(12), I hereby consent to the proposal of the rule specified above.

I am authorizing the proposal of this rule, including the provisions of §6 regarding fees, in order to initiate the public comment and review period. However, I am directing that the question of the fees imposed in §6 be thoroughly reviewed during the comment period, in order determine whether the amounts set in the proposed rule are appropriate. I therefore reserve judgment on that issue.

You may attach a copy of this letter to your filing with the Secretary of State as evidence of my consent.

Sincerely yours,

John M. Ranson
Cabinet Secretary

JMR:ro

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FISCAL NOTE FOR PROPOSED RULE

Rule Title:Sewage Sludge Management Regulations 47 C.S.R. 38D

Type of Rule: _X_ Legislative ___ Interpretive ___ Procedural

Agency: Division of Environmental Protection

Address: #10 McJunkin Road, Nitro, West Virginia 25143-2506

1. Effect of Proposed Rule	ANNUAL Increase	ANNUAL Decrease	FISCAL YEAR Current	FISCAL YEAR Next	FISCAL YEAR Thereafter
Estimated Total Cost	$200,000		0	200,000	200,000
Personal Services	$150,000		0	150,000	150,000
Current Expenses	$ 40,000		0	40,000	40,000
Repairs & Alterations	$				
Equipment	$ 10,000		0	10,000	10,000
Other	$				

2. Explanation of above estimates: The promulgation of these rules will result in the need of personnel, equipment and other related costs to efficiently and orderly regulate sewage sludge. §20-5F-2b(b) establishes that a land application fee be levied and imposed to sufficiently cover the costs of the Sewage Sludge Management Program.

3. Objectives of this rule: To require permits for all facilities and activities which generate, process or dispose of sewage sludge and to develop and implement a comprehensive program for the regulation and management of sewage sludge.

4. Explanation of Overall Economic Impact of Proposed Rule.

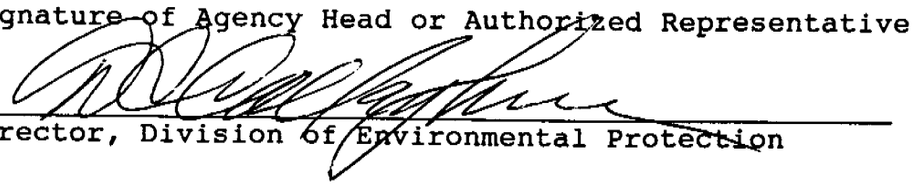
   A. Economic Impact on State Government: The agency will require funding support and will use the fees provided for by the legislation to manage the program and provide for environmental remediation.

   B. Economic Impact on Political Subdivisions; Specific Industries; Specific groups of citizens: Possible increase in sewage treatment fees to cover the costs of implementing land application requirements.

   C. Economic Impact on Citizens/ Public at Large: Same as B. above.

Date:

Signature of Agency Head or Authorized Representative



Director, Division of Environmental Protection

DATE: July 7, 1993

TO: Legislative Rule-Making Review Committee

FROM: Department of Commerce, Labor and Environmental Resources; Division of Environmental Protection

LEGISLATIVE RULE TITLE: Sewage Sludge Management Regulations

1. Authorizing statute(s) citation: §20-5F-2b(b)

2.a. Date filed in State Register with Notice of Hearing: May 24, 1993

2.b. What other notice, including advertizing, did you give of the hearing? State-wide press release.

2.c. Date of hearing(s): June 23, 1993

2.d. Attach list of persons who appeared at hearing, comments received, amendments, reasons for amendments; Attached X No comments received ____

2.e. Date agency approved proposed Legislative Rule filed in State Register following public hearing: July 7, 1993

2.f. Name and telephone of agency contact: Bill Brannon, 558-2108

3. If the statute under which the rule was promulgated and submitted requires certain findings and determinations to be made as a condition precedent to their promulgation:

3.a. Date on which a notice of the time and place of hearing for the taking of evidence and a general description of the issues to be decided was filed in the State Register: N.A.

3.b. Date of hearing: N.A.

3.c. Date the required findings and determinations together with reasons therefor were filed in the State Register: N.A.

3.d. Findings and determinations, and reasons (attached). N.A.

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OFFICE OF WEST VIRGINIA SECRETARY OF STATE

TITLE 47
LEGISLATIVE RULES
DIVISION OF ENVIRONMENTAL PROTECTION

SERIES 38D
SEWAGE SLUDGE MANAGEMENT REGULATIONS

§47-38D-1. GENERAL.

1.1. Scope and Purpose. -- This legislative rule establishes requirements for the siting, bonding, installation, establishment, construction, modification, and operation of any facility that generates, processes, recycles and/or disposes of sewage sludge by whatever means, including, but not limited to, land application, composting, incineration, mixed waste composting, or any other method of handling sewage sludge within the state. This rule applies to any person who owns or operates a sewage sludge facility or who is responsible for the processing or disposal of sewage sludge.

1.2. Authority. W. Va. Code 20-5F-2b(b)

1.3. Filing Date.

1.4. Effective Date.

1.5. Incorporation by Reference. Whenever federal or state statutes or regulations are incorporated into these regulations by reference, the reference is to the statute or regulation in effect on the effective date of these regulations.

§47-38D-2. DEFINITIONS

The following definitions shall apply to these rules unless otherwise specified herein:

2.1. "Agronomic rate" means the whole sewage sludge application rate, by dry weight, designed: (1) To provide the amount of nitrogen needed by the food crop, feed crop, fiber crop, cover crop or vegetation on the land; and (2) To minimize the amount of nitrogen in sewage sludge that passes below the root zone of the crop or vegetation grown on the land to the ground water.

2.2. "Applicant" means the person applying for a commercial solid waste facility permit or similar renewal permit and any person related to such person by virtue of common ownership, common management or family relationships as the director of the division of environmental protection may specify, including the following: Spouses, parents, children and siblings.

2.3. "Approved solid waste facility" means a solid waste facility or practice which has a valid permit under Chapter 20, Article 5F.

2.4. "Backhauling" means the practice of using the same container to transport solid waste and to transport any substance or material used as food by humans, animals raised for human consumption or reusable item which may be refilled with any substance or material used as food by humans.

2.5. "Bulking Agent" means materials such as yard waste, wood chips, leaves and other living or dead plant tissues approved by the chief as suitable to promote the passage of air through a static pile or windrow.

2.6. "Chief" means the chief of the office of waste management of the division of environmental protection.

~~2.7. "Class A facility" means a commercial solid waste facility which handles an aggregate of between ten thousand and thirty thousand tons of solid waste per month. Class A facility shall include two or more Class B solid waste landfills owned or operated by the same person in the same county, if the aggregated tons of solid waste handled per month by such landfills exceeds nine thousand nine hundred ninety-nine tons of solid waste per month.~~

~~2.8. "Class A Sewage Sludge Processing Facility" means a commercial sewage sludge processing facility which is authorized to receive or handle an aggregate of between ten thousand (10,000) and thirty (30,000) actual tons of sewage sludge per month, including mixed solid waste, at one or more commercial sewage sludge processing facilities in the county or region, if said county participates in a regional solid waste authority, in which the sewage sludge processing facility is to be located.~~

~~2.9. "Class B Sewage Sludge Processing Facility" means a commercial sewage sludge processing facility which receives or is expected to receive an average daily quantity of sewage sludge, including mixed solid waste, equal to or exceeding one hundred (100) actual tons each working day or serves or is expected to serve a population equal to or exceeding forty thousand (40,000) persons, but which does not receive or is not expected to receive an aggregate exceeding ten thousand (10,000) actual tons per month.~~

~~2.10 "Class C Sewage Sludge Processing Facility" means a commercial sewage sludge processing facility which receives or is expected to receive an average daily quantity of sewage sludge, including mixed solid waste, of less than one (100) hundred tons each working day and serves a population of less than forty thousand (40,000) persons.~~

2.7.~~2.11.~~ "Commercial recycler" means any person, corporation or business entity whose operation involves the mechanical separation of materials for the purpose of reselling or recycling at least seventy percent by weight of the materials coming into the commercial recycling facility.

2.8.~~2.12.~~ "Commercial solid waste facility" means any solid waste facility which accepts solid waste generated by sources other than the owner or operator of the facility and shall not include an approved solid waste facility owned and operated by a person for the sole purpose of

disposing of solid wastes created by that person or such person and other persons on a cost-sharing or nonprofit basis and shall not include land upon which reused or recycled materials are legitimately applied for structural fill, road base, mine reclamation and similar applications.

2.9.~~2.13.~~ "Composting" means the aerobic, thermophilic decomposition of natural constituents of solid waste to produce a stable, humus-like material.

2.10.~~2.14.~~ "Composting facility" means any solid waste facility processing solid waste by composting, including sludge composting, organic waste or yard waste composting, but does not include a facility for composting solid waste that is located at the site where the waste was generated.

2.11.~~2.15.~~ "Curing area" means an area where organic material that has undergone the rapid initial stage of decomposition is further stabilized into a humus-like material.

2.12.~~2.16.~~ "Director" means the director of the division of environmental protection.

2.13.~~2.17.~~ "Distributor" is a person who prepares the product for distribution and marketing and is responsible for distributing and marketing the product.

2.14.~~2.18.~~ "Division" means the division of environmental protection .

2.15.~~2.19.~~ "Domestic septage" means either liquid or solid material (septage) removed from a septic tank, cesspool, portable toilet, Type III marine sanitation device, or similar treatment works that receives only domestic sewage. Domestic septage does not include liquid or solid material removed from a septic tank, cesspool, or similar treatment works that receives either commercial wastewater or industrial wastewater and does not include grease removed from a grease trap at a restaurant.

2.16.~~2.20.~~ "Energy recovery incinerator" means any solid waste facility at which solid waste are incinerated with the intention of using the resulting energy for the generation of steam, electricity or any other use not specified herein.

2.17.~~2.21.~~ " Importer" means any person bringing in or receiving sewage sludge from any outside source for the purpose of processing .

2.18.~~2.22.~~ "Incineration technologies" means any technology that uses controlled flame combustion to thermally break down solid waste, including refuse-derived fuel, to an ash residue that contains little or no combustible materials, regardless of whether the purpose is processing, disposal, electric or steam generation or any other method by which solid waste is incinerated.

2.19.~~2.23.~~ "Incinerator" means an enclosed device using controlled flame combustion to thermally break down solid waste, including refuse-derived fuel, to an ash residue that contains little or no combustible materials.

2.20.~~2.24.~~ "Landfill" means any solid waste facility for the disposal of solid waste on land. Such facility is situated, for purposes of Chapter 20, Article 5F, in the county where the majority of the spatial area of such facility is located.

2.21.~~2.25.~~ "Materials recovery facility" means any solid waste facility at which source-separated materials or materials recovered through a mixed waste processing facility are manually or mechanically shredded or separated for purposes of reuse and recycling, but does not include a composting facility.

2.22.~~2.26.~~ "Mixed solid waste" means solid waste from which materials sought to be reused or recycled have not been source-separated from general solid waste.

2.23.~~2.27.~~ "Mixed waste processing facility" means any solid waste facility at which materials are recovered from mixed solid waste through manual or mechanical means for purposes of reuse, recycling or composting.

2.24.~~2.28.~~ "Municipal solid waste incineration" means the burning of any solid waste collected by any municipal or residential solid waste disposal company.

2.25.~~2.29.~~ "Open dump" means any solid waste disposal which does not have a permit under Chapter 20, Article 5F, or is in violation of state law, or where solid waste is disposed in a manner that does not protect the environment.

2.26.~~2.30.~~ "Person" or "persons" mean any industrial user, public or private corporation, institution, association, firm or company organized or existing under the laws of this or any other state or country; state of West Virginia; governmental agency, including federal facilities; political subdivision; county commission; municipal corporation; industry; sanitary district; public service district; drainage district; soil conservation district; watershed improvement district; partnership trust; estate; person or individual; group of persons or individuals acting individually or as a group; or ~~a~~ any legal entity whatever.

2.27.~~2.31.~~ "Pretreatment Publicly Owned Treatment Works" means a publicly owned treatment works that has ~~been required to develop a publicly owned treatment works pretreatment program~~ developed and received approval of a program to control the discharge of non-domestic (industrial) wastewater into its treatment works pursuant to 40 CFR, Part 403. In general, pretreatment publicly owned treatment works are greater than 5 million gallons per day in design and accept wastewater from significant industrial users.

2.28.~~2.32.~~ "Producer" means any person producing sewage sludge at a publicly owned treatment works (POTW).

2.29.~~2.33.~~ "Recycling facility" means any solid waste facility for the purpose of recycling at which neither land disposal nor biological, chemical or thermal transformation of solid waste

occurs: Provided, that mixed waste recovery facilities, sludge processing facilities and composting facilities are not considered recycling facilities nor considered to be reusing or recycling solid waste within the meaning of Chapter 20, Articles 9 and 11.

2.30.~~2.34.~~ "Representative sample" means a sample collected from a population or whole that exhibits the average or typical properties of the larger population or whole.

2.31.~~2.35.~~ "Sewage sludge" means solid, semi-solid or liquid residue generated during the treatment of domestic sewage in a treatment works. Sewage sludge includes, but is not limited to, domestic septage, scum or solids removed in primary, secondary or advanced wastewater treatment processes and a material derived from sewage sludge. "Sewage sludge" does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator."

2.32.~~2.36.~~ "Sewage sludge processing facility is a solid waste facility that processes sewage sludge for land application, incineration or disposal at an approved landfill. Such processes include, but are not limited to, composting, lime stabilization, thermophilic digestion and anaerobic digestion.

2.33.~~2.37.~~ "Sludge means any solid, semisolid, residue or precipitate, separated from or created by a municipal, commercial or industrial waste treatment plant, water supply treatment plant or air pollution control facility or any other such waste having similar origin.

2.34.~~2.38~~. "Solid waste" means any garbage, paper, litter, refuse, cans, bottles, waste processed for the express purpose of incineration; sludge from a waste treatment plant, water supply treatment plant or air pollution control facility; and other discarded materials, including offensive or unsightly matter, solid, liquid, semisolid or contained liquid or gaseous material resulting from industrial, commercial, mining or community activities but does not include solid or dissolved material in sewage or solid or dissolved materials in irrigation return flows or industrial discharges which are point sources and have permits under Chapter 20, Article 5A, or source, special nuclear or by-product material considered by federal standards to be below regulatory concern, or a hazardous waste either identified or listed under Chapter 20, Article 5E, or refuse, slurry, overburden or other wastes or material resulting from coal-fired electric power or steam generation, the exploration, development, production, storage and recovery of coal, oil, and gas and other mineral resources placed or disposed of at a facility which is regulated under Chapter 22, 22A, or 22B, of the Code, so long as such placement or disposal is in conformance with a permit issued pursuant to such chapters.

2.35.~~2.39.~~ "Solid waste disposal" means the practice of disposing of solid waste including placing, depositing, dumping or throwing or causing to be placed, deposited, dumped or thrown any solid waste.

2.36.~~2.40.~~ "Solid waste disposal shed" means the geographical area which the solid waste management board designates and files in the state register pursuant to Chapter 16, Article 26, Section 8 of the Code.

2.37.~~2.41.~~ "Solid waste facility" means any system, facility, land contiguous land, improvements on the land, structures or other appurtenances or methods used for processing, recycling or disposing of solid waste, including landfills, transfer stations, materials recovery facilities, mixed waste processing facilities, sewage sludge processing facilities, composting facilities and other such facilities not herein specified but not including land upon which sewage sludge is applied in accordance with Chapter 20, Article 5F, Section 2-(b) of the Code. Such facility shall be deemed to be situated, for purposes of these regulations, in the county where the majority of the spatial area of such facility is located: Provided, That a salvage yard licensed and regulated pursuant to the terms of Chapter 17, Article 23, is not a solid waste facility.

2.38.~~2.42.~~ "Source separated materials" means materials separated from general solid waste at the point of origin for the purpose of reuse and recycling but does not mean sewage sludge.

2.39.~~2.43.~~ "Source separated organic waste " means readily degradable organic material such as food waste, yard waste and wood waste, except pressure-treated wood waste, which is collected separately from the mixed solid waste stream. It does not include sewage sludge or domestic septage.

2.40.~~2.44.~~ "Stabilization" means the decomposition .of organic material to the point where it neither reheats when wetted nor gives off offensive odors and does not include pathogens, toxins or vectors in excess of Federal regulations 40 CFR, part 503.

§47-38D-3. STANDARDS FOR USE, DISPOSAL AND PROCESSING OF SEWAGE SLUDGE.

3.1. Incorporation of Federal Regulations. Federal regulations 40 CFR part 503, excluding 503.10(b)(1) and 503.20 through 503.29 inclusive, as in effect on the effective date these rules, are hereby fully incorporated and implemented as a part of these sewage sludge management regulations promulgated under the authority of Chapter 20, Article 5F, Section 2b.

3.2. Sewage Sludge Land Application Siting Restrictions and Location Standards.

3.2.1. Sludge will not be applied to land that meets any of the following conditions:

3.2.1.a. Land that is frozen, snow-covered, or known to be flooded on a regular basis unless the applicant can demonstrate to the Director that the land application will not cause runoff into streams or wetlands.

3.2.1.b. Land within 50 feet of surface water to include streams, springs, ponds, wetlands, or other collection points for surface water.

3.2.1.c. Land within 200 feet of drinking water supply wells or other personal water supply.

3.2.1.d. Land within 200 feet of an occupied dwelling.

3.2.1.e. Land within 50 feet of a federal or state highway.

3.2.1.f. Land within 100 feet of an adjacent property owner's property line.

3.2.1.g. Land from which drainage leads into a sinkhole.

3.2.1.h. Land that has been tested and determined to have a pH of less than 6.2, unless the pH is adjusted to 6.2 or greater.

3.2.1.i. Land that has a slope greater than 15%.

3.2.1.j. Land that has a seasonal high groundwater table less than 2 feet from the surface.

3.2.1.k. Land that has less than 6 ~~20~~ inches of soil over bedrock or an impervious pan.

3.2.1.l. Land containing soil with surface permeability of less than 0.6 inches/hour or greater than 6 inches/hour.

3.2.2. No person or entity shall be allowed to apply sewage sludge to land in a manner that will result in exceeding the maximum soil concentration for all pollutants, including, but not limited to, arsenic, cadmium, chromium, copper, lead, mercury, molybdenum, nickel, selenium and zinc, to be determined based, at a minimum, upon cumulative loading rates of 40 CFR, 503.13(b)(2) and 503.12(e)(2) and soil testing requirements developed under these regulations.

3.2.3. No land, except a solid waste facility, shall be allowed to accept or store so much sewage sludge as to exceed the agronomic rate or a rate of fifteen dry ton per acre per year, whichever is less: Provided, That up to twenty-five dry tons per acre per year may be applied in the reclamation of surface mine land.

3.2.4. No person shall be allowed to store sewage sludge at a land application site for a period longer than one week; except, storage shall be allowed for no longer than three months where provisions, approved by the Chief, have been made to prevent leachate runoff into surface or groundwater. Septage storage shall only be allowed in-tank and for no more than three days.

3.2.5. No person shall be allowed to land apply sludge except during the hours of daylight.

3.3. Sewage Sludge Processing Facility Operational and Design Requirements

3.3.1. Sewage sludge processing facilities must adhere to the following requirements:

3.3.1.a. Areas used for processing, curing and storage of raw materials, intermediate and final products, loading and unloading areas, impoundments, pipelines, ditches, pumps and drums, sumps and tanks, must be designed, constructed and operated to prevent release of contaminants to the groundwater and surface water. Storage of finished products from the facility shall be limited to one year.

3.3.1.b. The facility must be designed and operated to control vectors and odors.

3.3.1.c. The facility must not be operated or constructed within the one hundred year flood plain unless provisions have been made to prevent the encroachment of flood waters upon the facility.

3.3.1.d. All land areas within the boundaries of a sewage sludge processing facility upon which sewage sludge, intermediate or final products come in direct contact with the land surface must be protected ~~by a liner system meeting the following requirements~~ in accordance with the Groundwater Protection Act, Chapter 20, Article 5M.

~~3.3.1.d.A. A clay liner installed in accordance with sections 4.5.4.e. to 4.5.4.e.A.(i). of the Solid Waste Management Regulations, Title 47, Series 38.~~

~~3.3.1.d.B. The clay liner must be, at a minimum, two (2') feet and the permeability must not be greater than 1×10^{-7} centimeters per second.~~

~~3.3.1.d.C. A leachate detection zone between the six inch (6") subbase and the two foot (2') clay liner.~~

~~3.3.1.d.D. The final surface shall consist of at least a six (6") inch slab of reinforced concrete with a leachate collection network.~~

~~3.3.1.d.E. Upon the completion of the construction of each major element of the liner system subbase, leachate detection zone, two foot clay liner, final surface and leachate collection system, and prior to deposition of sewage sludge, a registered professional engineer shall certify under his/her seal to the chief that the element or stage was constructed as required.~~

3.4. Leachate Management Requirements.

3.4.1. Any liquid which comes in contact with sewage sludge at a sewage sludge processing facility must be handled as leachate and is subject to the requirements of West Virginia Code Chapter 20, Articles 5A and 5M ~~and section 4.8 of the Solid Waste Management Regulations, Title 47, Series 38.~~

3.5. Storm Water Requirements.

3.5.1. Storm water drainage must be directed around and away from the operating area. All storm water must be collected and discharged into a receiving stream under permit issued by the division.

3.6. Landfill Disposal of Sewage Sludge. Sewage sludge disposed at a landfill shall contain at least twenty percent (20%) solid by weight. This requirement may be met by adding or blending sand, sawdust, lime, or soil ~~or other materials that have been approved by the chief prior to disposal~~. Alternative sludge disposal methods can be utilized upon obtaining prior written approval from the chief.

3.6.1. Sewage sludge may not represent more than twenty-five percent (25%) by weight of the total weight of waste disposed of at the landfill on any working day.

§47-38D-4. PERMITS REQUIRED

4.1. Applicability.

4.1.1. No person may construct or operate a sewage sludge processing facility (including mixed waste composting facilities which utilize sewage sludge) or a commercial solid waste facility which processes or handles sewage sludge or materials derived from sewage sludge without first obtaining a solid waste facility permit; provided, That land upon which sewage sludge is applied is not a solid waste facility.

4.1.2. No person may land apply sewage sludge without first obtaining a land application permit; provided, That land application permit requirements may be incorporated into a modification of a facility's WV/NPDES permit required under Chapter 20, Article 5A.

4.1.3.~~4.1.2.~~ For those publicly owned treatment works (POTW) which produce sewage sludge and are regulated by the division pursuant to an WV/NPDES permit required under Chapter 20, Article 5A, a sewage sludge processing facility modification will be obtained by the applicant as a part of the existing WV/NPDES permit and shall include a sewage sludge management plan.

~~4.1.3. For those sewage sludge processing facilities which are located on or within a facility regulated by the division pursuant to a solid waste permit required under Chapter 20,~~

~~Article 5F, a sewage sludge processing facility modification will be obtained as a part of the existing solid waste permit and shall include a sewage sludge management plan.~~

4.1.4. Facilities who are a surface disposal site as defined in 40 CFR, part 503, Subpart C, are hereby defined as "landfills" and must meet all requirements of Title 47, Series 38 applicable to landfills.

4.1.5. Permits issued under section 4.1.1~~, 4.1.3, 4.1.4~~ of these regulations, shall be subject to the ~~permit issuance procedures, procedures for permit modification, suspension and revocation, procedures for transfer of permits, disclosure statement requirements, and the procedures for permit appeals~~ procedures of Title 47, Series 38, Section 3 (excluding the provisions for Liner Requirements) and the closure requirements of Title 47, Series 38, Section 6.

4.1.6. Permits issued under section 4.1.3~~4.1.2~~ of these regulations, shall be subject to the permit issuance procedures, procedures for permit modifications, suspension and revocation, procedures for transfer of permits, and the procedures for permit appeals of Title 46, Series 2 and are not subject to the procedures outlined in 4.1.5, 4.1.7 and 4.1.8.

4.1.7. Permits issued under section 4.1.4., of these regulations, shall be subject to the procedures of Title 47, Series 38, Section 3 and the closure requirements of Title 47, Series 38, Section 6.

4.1.8. Permits issued under section 4.1.2. of these regulations, except for land application modifications made in WV/NPDES permits under 4.1.3, shall be subject to the permit issuance procedures (Sections 3.17 through 3.29 inclusive) of Title 47, Series 38, and are not subject to the procedures outlined in 4.1.5, 4.1.6 and 4.1.7.

4.2. General, Processing Facility, and Land Application Permit Requirements. Persons required to obtain a permit pursuant to these regulations must provide the following information, in the form and manner prescribed by the Chief. The form may require information in addition to this section.

4.2.1. Permit Application General Requirements. All applicants must provide the following information:

4.2.1.a. The name, address, and location of the facility;

4.2.1.b. A description of the activities conducted or to be conducted by the applicant;

4.2.1.c. The operator's and owner's name, address, telephone number, ownership status, and status as a federal, state, private, public or other entity;

4.2.1.d. Other environmental permits issued by any local,state or federal agency;

4.2.1.e. A description of the specific source(s) of sewage sludge;

4.2.1.f. The amount of sewage sludge actually generated or imported;

4.2.1.g. The content of heavy metals, pathogens, toxins or vectors present in the sewage sludge;

4.2.1.h. Each location that the sewage sludge is stored, land applied or otherwise disposed of; the amount so stored, land applied or otherwise disposed of; and the capacity of that location to accept sewage sludge;

4.2.1.i. Information relative to the quality of the sewage sludge(s) or product(s) derived from sewage sludge as required by 40 CFR, Part 503, and

4.2.1.j. A detailed design and a description of the method to collect and control leachate and surface water runoff, including the method for treatment and disposal of leachate generated.

4.2.2. Sewage Sludge Processing Facility Permit Requirements. All applicants for permits for sewage sludge processing facilities, except facilities located at the site where sewage sludge is generated, must submit the following additional information:

4.2.2.a. An engineering report for an application for a permit to construct must contain, at a minimum, the following:

4.2.2.a.A. A regional map, or maps, (of appropriate scale) that delineate the entire service area of the proposed facility (both existing and proposed); existing and proposed collection, processing, and disposal operations; the location of the closest population centers; and the transportation systems including highways, airports, railways and waterways.

4.2.2.a.B. A vicinity map (minimum scale of 1"=2000') that delineates the area within one mile of the facility boundaries, zoning and land use, residences, surface waters, access roads, bridges, railroads, airports, historic sites, and other existing and proposed man-made or natural features relating to the project.

4.2.2.a.C. A site plan (minimum scale of 1"=200' with five foot contour intervals) that delineates property boundaries, the location of existing and proposed soil boring, monitoring wells, buildings and appurtenances, fences, gates, roads, parking areas, drainage, culverts, storage facilities or areas, loading areas; existing and proposed elevation contours and direction of prevailing winds; and the location of residences, potable wells, surface water bodies, and drainage swales located within the site and in the site plan area.

4.2.2.a.D. A map indicating wetlands and flood plains within 1,000 feet of the site, if any.

4.2.2.b. Every applicant shall file a disclosure statement with the director at the time the application is filed except publicly owned and operated facilities in accordance with section 3.14 of the solid waste management regulations (title 47, series 38).

4.2.2.c. A description of the operation of the facility, detailed engineering plans and specifications for the entire facility, must be submitted by the applicant including at a minimum:

4.2.2.c.A. A schedule of operation, including the days and hours that the facility will be open, preparations before opening, and procedures followed after closing for the day;

4.2.2.c.B. Anticipated daily traffic flow to and from the facility, including the number of trips by private or public collection vehicles, and the quantity of material contained in each vehicle;

4.2.2.c.C. The procedure for unloading trucks (including frequency, rate, and method);

4.2.2.c.D. Special precautions or procedures for operation during wind, heavy rain, snow, and freezing conditions;

4.2.2.c.E. A description of the ultimate use for the finished compost or other product, method for removal from the site, and a plan for use or disposal of those finished products that cannot be used in the expected manner due to poor quality or change in market conditions;

4.2.2.c.F. A (description) copy of the label or other information source, by the distributor, that outlines the type of waste the compost product was received from, a list of any restrictions on use, and recommended safe uses and application rates;

4.2.2.c.G. Identification of the personnel required to operate and maintain the facility and their job descriptions/responsibilities;

4.2.2.c.H. A detailed description of the source, and anticipated quality, and quantity of any bulking agent to be used in the process; and

4.2.2.c.I. A detailed description of the quantity, quality and specific source of the sewage sludge received or anticipated to be received.

4.2.2.d. The permit application must contain an operating engineering report which must include, at a minimum, the following:

4.2.2.d.A. Detailed engineering plans and specifications for the entire sewage sludge processing facility, including manufacturer's performance data for the selected equipment;

4.2.2.d.B. Contingency plans detailing corrective (or remedial) action to be taken in the event of equipment breakdown; air pollution (odors); unacceptable waste delivered to the facility; groundwater contamination; spills; and undesirable conditions such as fires, dust, noise, vectors, lack of a market for the compost product and unusual traffic conditions; and

4.2.2.d.C. An Operation and Maintenance manual. The manual must contain general design information, detailed operational information and instructions. In addition, the manual must list the specific procedures used or to be used in monitoring, sampling and analyzing sewage sludge and the finished product, and record keeping requirements.

4.2.2.e. A description of the design of the facility, including:

4.2.2.e.A. The type, size, and associated detention times for the handling, processing, and storage equipment;

4.2.2.e.B. The method of measuring, shredding, mixing, and proportioning input materials;

4.2.2.e.C. A description and sizing of the storage facilities for amendment, bulking agent, and finished product;

4.2.2.e.D. The separation, processing, storage, and ultimate disposal of materials that cannot be composted, if applicable;

4.2.2.e.E. The location of all temperature and any other type of monitoring points, and the frequency of monitoring;

4.2.2.e.F. A process flow diagram of the entire process, including all major equipment and flow streams. The flow streams must indicate the quantity of material on a wet weight, dry weight, and volumetric basis;

4.2.2.e.G. The aeration capacity of the system;

4.2.2.e.H. The method of supplying and regulating airflow;

4.2.2.e.I. The expected mass balance through the composting system;

4.2.2.e.J. A description of how the (temperature) monitoring equipment will ensure that facility qualifies as a process to further reduce pathogens, toxins, heavy metals and/or vectors;

4.2.2.e.K. If applicable, a description of the air emission collection and control technologies;

4.2.3. Land Application Permit Requirement . Persons performing land application of sewage sludge or materials derived from sewage sludge must submit the following information in addition to that required under section 4.2.1. of these regulations:

4.2.3.a. Soil analysis for all land application sites including but not limited to pH, potassium, phosphorus, and nitrogen;

4.2.3.b. Information relative to the nitrogen content of the sludge(s) or product(s) derived from sewage sludge to be land applied;

4.2.3.c. A soils map with application sites clearly defined;

4.2.3.d. An agreement between the preparer of sewage sludge(s) or material(s) derived from sewage sludge, the applier, and the owner of the land application site indicating each party's concurrence with the application, and certifying that each will comply with applicable requirements of 40 CFR 503 and these regulations;

4.2.3.e. A description of existing and future uses of the land application site;

4.2.3.f. Information relative to past application(s) of sewage sludge or material(s) derived from sewage sludge as necessary to comply with 40 CFR 503.12;

4.2.3.g. Information relative to past fertilizer applications to the site;

4.2.3.h. In addition to the chemical analyses required in 4.2.1, any additional chemical analyses of sewage sludge(s) or material(s) derived from sewage sludge, requested by the Chief, including, but not limited to sodium, chloride, fluoride, calcium and sulfates;

4.2.3.i. A description of the methods ~~for spreading and incorporation~~ to be used for land application.

4.2.3.j. A description of the methods for transportation of sludge to the site;

4.2.3.k. For sewage sludge or material derived from sewage sludge, which has been imported, a copy of the POTW's NPDES permit;

4.2.3.l. For sewage sludge or material derived from sewage sludge, which has been imported, information relative to the significant industrial users of the POTW from which the sludge or material originated;

4.2.3.m. For sewage sludge or material derived from sewage sludge, which has been imported, a description of the methods by which pathogen control and vector attraction reduction are being achieved; and

4.2.3.n. A description of the methods to be utilized ~~by the applicant~~ to adjust and maintain the soil to a minimum pH of 6.2 for at least 5 years from the date of application.

§47-38D-5. GENERAL, PROCESSING FACILITY, AND LAND APPLICATION PERMIT REQUIREMENTS.

5.1. Permit General Requirements. All ~~solid waste facility~~ permits issued pursuant to these regulations shall contain the following:

5.1.1. Any requirement of 40 CFR, part 503, including but not limited to:

5.1.1.a. Limitations on the concentrations of pollutants (heavy metals), toxins, vectors and pathogens in the sewage sludge or sewage sludge products;

5.1.1.b. Requirements relative to monitoring sewage sludge or sewage sludge product quality; and reporting the results of those analyses for all heavy metals listed in 40 CFR, 503.13, pH, percent solids, organic nitrogen, potassium, phosphorus, calcium, magnesium, total nitrogen, ammonia nitrogen, pathogen test results and vector attraction verification; except that the frequency of monitoring shall be as described in Appendix A;

5.1.1.c. Requirements relative to reporting and certification;

5.1.1.d. Requirement to pay fees as identified in Section 6 of these regulations;

5.1.1.e. Requirements for the proper collection, control and disposal of leachate and stormwater runoff for the protection of ground and surface waters;

5.1.1.f. Requirements to retain records for the facility for a minimum of five years;

5.1.1.g. Requirements to monitor and report monthly to the Division the quantity of sewage sludge produced or imported and the specific source of the sewage sludge produced or imported;

5.1.1.h. Requirements to provide copies of monthly reports to the county or regional solid waste authority in which the facility or land application site(s) is located;

5.1.1.i.. Any other requirements, including additional monitoring, determined to be necessary by the Chief to insure compliance with state and federal regulations;

5.2. Processing Facility Permit Requirements. In addition to the requirements of 5.1., any solid waste facility permit issued to a sewage sludge processing facility, pursuant to the sewage sludge regulations, must contain the following:

5.2.1. Operational requirements relative to pathogen control in accordance with 40 CFR, Part 503.32 and its Appendix B;

5.2.2. Operational requirements relative to vector attraction reduction in accordance with 40 CFR, Part 503.33;

5.2.3. Requirements to routinely monitor and report information relative to the quality of raw materials used in the sewage sludge processing facility including but not limited to: sewage sludge, bulking agents, kiln dust; except that the frequency of monitoring shall be as described in Appendix A;

5.2.4. Limitations for the pollutant concentrations of the end product of the sewage sludge processing facility;

5.2.5. Labeling requirements as per 40 CFR, Part 503.14.e., if applicable;

5.2.6. Requirements for the implementation of practices to prevent the contamination of ground and surface waters, including liners if necessary;

5.2.7. For commercial sewage sludge processing facilities, requirements for reporting in accordance with Section 4.12 of the Solid Waste Management Regulations (Title 47, Series 38);

5.3. Land Application Permit Requirements. In addition to the requirements of 5.1, any ~~solid waste facility~~ land application permit issued pursuant to the sewage sludge regulations ~~that includes land application~~ shall contain the following:

5.3.1. Requirements delineating the sites for which land application is approved;

5.3.2. Limitations on the maximum amount of sewage sludge allowed to be land applied;

5.3.3. Requirements implementing the siting restrictions and location standards of 3.2 of these regulations;

5.3.4. Requirements limiting the types of crops that may be grown on land used for application of sewage sludge and the time between application of sewage sludge and the harvesting of crops, in accordance with 40 CFR, Part 503.32(b);

5.3.5. Restrictions on animal grazing and public access, in accordance with 40 CFR, Part 503.32(b);

5.3.6. Applicable vector attraction reduction requirements of 40 CFR, Part 503.33.

~~5.4. Incineration Permit Requirements. In addition to the requirements of 5.1, any solid waste facility permit issued pursuant to the sewage sludge regulations that includes incineration shall contain the following:~~

~~5.4.1. The National Emission Standards for beryllium and mercury of 40 CFR, Part 61;~~

~~5.4.2. Limitation on the concentration of Total Hydrocarbons in the stack gas in accordance with 40 CFR, Part 503.44;~~

~~5.4.3. Requirements implementing the management practices of 40 CFR, Part 503.45;~~

~~5.4.4. All monitoring requirements of 40 CFR, Part 503.46;~~

~~5.4.5. All record keeping requirements of 40 CFR, Part 503.47;~~

~~5.4.6. All reporting requirements of 40 CFR, Part 503.48; and~~

~~5.4.7. Requirements relative to the proper control and disposal of incinerator ash.~~

§47-38D-6. FEE REQUIREMENTS ~~FEE ASSESSMENTS.~~

6.1. Applicability. Any ~~person required to obtain a solid waste facility permit, pursuant to these regulations,~~producer or importer of sewage sludge intended for land application shall be subject to non-refundable fees, as described herein, which shall be used to cover the costs of the sewage sludge management program and to cover the costs of future environmental remediation.

6.2. Water Quality Management Fund. Fees collected ~~pursuant to the sewage sludge regulations~~ for land application shall be deposited in the special revenue fund designated the "water quality management fund" established under the provisions of 20-5A-6a except as otherwise specified herein.

6.3. Fee Assessments

6.3.1. Producers and importers of sewage sludge or material derived from sewage sludge intended for land application shall be assessed an environmental remediation fee. The fee shall be $1.00 per dry ~~wet~~ ton of sewage sludge or material derived from sewage sludge originating from pretreatment publicly owned treatment works. The fee shall be $0.50 per dry ~~wet~~ ton of sewage sludge or material derived from sewage sludge originating from non-pretreatment publicly owned treatment works. Regulations governing the management and disposition of the remediation fund and a cap limitation will be developed separately.

6.3.2. Producers and importers of sewage sludge or material derived from sewage sludge ~~which is to be land applied~~ intended for land application shall be assessed a sewage sludge management program fee of $2.50 per dry ~~wet~~ ton.

6.3.3. All sewage sludge placed in, or upon, or used by a solid waste facility or processed or handled, pursuant to a permit issued by the division, shall be subject to the same ~~tipping and other~~ fees levied by Chapter 20, Article 5F, Section 5a(h)(1)~~, and deposited in the Solid Waste Enforcement Fund~~; except that only the fees established by 6.3.1. and 6.3.2. of these regulations shall apply to the application of sewage sludge or material derived from sewage sludge to land outside a solid waste facility, and shall be deposited in the "Water Quality Management Fund".

APPENDIX A

FREQUENCY OF MONITORING

AMOUNT OF SEWAGE SLUDGE RECEIVED (actual dry tons per 365 day period)	FREQUENCY OF MONITORING
Greater than zero but less than 290	once every 6 months
Equal to or greater than 290 but less than 1,500	once per quarter (4 times per year)
Equal to or greater than 1,500 but less 15,000	once per month (12 times per year)
Equal to or greater than 15,000	once per week

KEN HECHLER
Secretary of State

MARY P. RATLIFF
Deputy Secretary of State

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December 17, 1993

David C. Callaghan
Director
Department of Commerce, Labor &
Environmental Resources
Division of Environmental Protection
10 McJunkin Road
Nitro, West Virginia 25143-2506

Dear Dave:

I am writing in response to your letter, dated November 22, 1993, in which you ask me to reconsider my decision to disapprove the Sewage Sludge Management Regulations that were filed on October 12, 1993. Because that rule expired when I disapproved it, there is no emergency rule now pending before me for consideration, nor do I have the authority to reconsider my previous decision. In order to avoid a lengthy response, I will refer you to the attached correspondence in which I explain to the Chairmen of the Legislative Rule-making Review Committee why I am legally prohibited from reconsidering emergency rule decisions. In this letter to you, I want to focus on the specific complaints you raised about the contents of my emergency rule decision.

After considering your remarks, I decided to issue an addendum to the Emergency Rule Decision which will be designated ERD 23-93(A) to distinguish it from the original decision which is designated ERD 23-93. I want to emphasize that I am not reconsidering my decision. ERD 23-93(A) is a corrected emergency rule decision to clarify the language contained in the original. I apologize for the drafting errors that occurred largely because the two staff members who are responsible for preparing this kind of decision for my signature were both on sick leave the day the decision was prepared and filed. The errors in code citations are due to computer problems.

Paragraphs 1-3, 6 and 9 have been changed to correct the code citations or to change the references to the "Division of Natural Resources" to the "Division of Environmental Protection." The

language in paragraphs 9 and 13 have been corrected to clarify the basis of my original disapproval. Paragraph 14 has been changed to correctly designate this addendum as ERD 23-93(A). Also language has been added to paragraph 14 to clarify that ERD 23-93(A) does not in any way change the substance of my decision in ERD 23-93.

West Virginia Code, §29A-3-15a states that "the Secretary of State shall disapprove an emergency rule...if he determines" that (1) a rule was not promulgated in accordance with the legal requirements, (2) an emergency does not exist or (3) the agency exceeded the scope of its authority. While the first two criteria are satisfied, I determined that the Division of Environmental Protection exceeded the scope of its authority.

During the period of time for public comment, I received many letters and telephone calls from individuals and organizations who were very concerned about these rules, including members of the Legislative Rule-Making Review Committee. While no single concern provided sufficient basis for disapproving it, the accumulation of the type and scope of concerns that continued to pour into my office from a wide variety of sources persuaded me to disapprove this emergency rule.

Specifically the concerns expressed included the following items:

1. The rule incorporates by reference a 167 page federal rule. Concerns were expressed about whether some of its provisions are within the scope of the West Virginia Code, notwithstanding the qualifying language regarding which provision will take precedent in the event of conflicting requirements between state and federal law.

2. The language in 4.1.2 appears to be open to an interpretation that it allows grandfathering because some facilities will be able to evade the statute's requirements.

3. The language in 6.4.3 literally quotes West Virginia Code, §20-5F-2b(e) but omits the clause "and shall be included in said facility's total tonnage." This omission raises concerns that the referenced sewage sludge will not be included in a facility's total tonnage.

4. There were several more technical issues raised that seemed to require clarification, including the requirements for bulking agents.

5. Finally, members of the legislature expressed concern because the rule applies to municipalities which is not the legislative intent.

The concerns outlined above are explained in greater detail in the written comments I received if you need more information about them. I understand that you have copies of those comments. I know that you were disappointed by my final decision but I strongly believe that my disapproval of this emergency rule decision was justified.

I want you to know that this was not an easy decision to make. In fact, it was a very close decision based on the circumstances which I very carefully weighed. I can sympathize with you personally as the Director of an agency responsible for the regulations in this area, because the impact of a disapproval appears to be a sweeping condemnation of these regulations. Unfortunately, I cannot state that I saw 51% on one side and 49% on the other side, whereas for you this is a clear-cut issue. I have tried my best to address the comments in your November 22 letter.

Sincerely,

Ken Hechler
Secretary of State

Attachments

KEN HECHLER
Secretary of State

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A. RENEE COE
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November 5, 1993

The Honorable Joe Manchin, III
Senate Co-Chair
The Honorable Brian A. Gallagher
House of Delegates Co-Chair
W. Va. Legislature
Legislative Rule-Making Review Committee
Room M-152, State Capitol
Charleston, West Virginia 25305

Dear Senator Manchin and Delegate Gallagher:

I am writing in response to your letter dated October 28, 1993 in which you asked me to reconsider my decision to disapprove the Department of Motor Vehicle's (DMV) emergency legislative rule (91 C.S.R. 9) for the Motor Vehicle Alcohol Test and Lock Program (West Virginia Code, §17C-5A-3a).

Because DMV's emergency rule expired when I disapproved it, there is no emergency rule now pending before me for consideration. Nor can the agency resubmit it. The plain meaning of West Virginia Code, §29A-3-15(c) is that an emergency rule expires when the Secretary of State disapproves it. The statute says that once an emergency rule expires "due to the effect of" the Secretary of State disapproving it "the agency may not refile the same or similar rule as an emergency rule." If I could reconsider a rule that I have disapproved, the prohibition that an agency may not refile the same or a similar rule would be somewhat meaningless. No doubt, any agency that could exert sufficient influence would succeed in obtaining review of a disapproval.

Not only is my interpretation supported by the plain meaning of the statute but it is supported by the purpose of the rule-making requirements contained in Article 3 of the Administrative Procedures Act. The purpose of the rulemaking procedures is to protect the due process rights of any person who is affected by a rule. Due process consists of notice and the opportunity to be heard. The problem with the interpretation you suggest is that it does not afford adequate protection for the due process rights of those who have objections to an emergency rule. Under your suggested interpretation, it is unclear how new or additional notice would be given.

If I took the position that I could reconsider an emergency rule decision, how would parties who oppose an emergency rule receive notice of my decision to reconsider? How many times could I reconsider a rule? What would be the extent of my discretion to reconsider? Would an agency have a right to demand reconsideration? What would be the standard for reconsideration? How long after disapproval could I reconsider? Would I have authority to reverse a decision of approval? At what point would the opponent of a rule be able to stop maintaining vigilant watch to make sure a rule was not going to be reconsidered? I think that it would be unwise for me to take the approach that I may elaborate on the procedures set forth in Article 3, which are already lengthy and somewhat complex.

The legislature wisely foresaw that there is a very limited need for discretion in administering the rulemaking procedures. Consequently, Article 3 does not give the Secretary of State explicit rulemaking authority. I intend to consistently and objectively apply the law. Unlike a judge, the Secretary of State does not have the discretion to suspend or alter the procedural requirements for rulemaking, except in reviewing the content of emergency rules on a very narrowly defined basis. The law provides an adequate remedy for those who disagree with my emergency rule decisions by authorizing review by the State Supreme Court.

My responsibility in reviewing emergency rules is to determine whether there is an emergency, as defined by the statute, that justifies setting aside the regular rulemaking requirements to put a rule into effect immediately. Some due process is afforded to the public because notice that an emergency rule has been filed is published in the State Register and there is a 35 day time period for the Secretary of State to consider the emergency rule and accept public comment. However, in comparison to the process for promulgating a regular legislative rule, the emergency rule review period provides less due process because legislative consideration is bypassed. Also, from a practical standpoint, once an emergency rule takes effect as law, the opportunity to be heard on the regular legislative rule often has less significance, and at times is rendered meaningless, because it is difficult to change a policy that is already in effect.

I would like to emphasize as strongly as I can that my decision to disapprove DMV's emergency rule was not based on the fact that I disagree with the legislature's policy. My decision to disapprove the emergency rule was based on the fact that I was not persuaded by the agency's justification that an emergency as defined by the statute existed. The law states that agencies shall not use the emergency rulemaking process to circumvent the regular rulemaking process. This is the legislative policy that I have responsibility for enforcing.

At the time of filing and during the 35 day review period, DMV did not state that its justification for the emergency rule was that it had to be promulgated in time to meet a deadline established by the statute, although we did review the statute's deadlines. On one hand, there is a requirement that the program must go into effect on January 1, 1993 and, on the other hand, no one may participate in the program before July 1, 1993. DMV's actual filing dates do not coincide with either of those dates: the regular legislative rule was filed in May and the emergency rule was filed in September. Generally speaking, effective dates in statutes do not satisfy the emergency justification because that interpretation would mean that every rule could be promulgated on an emergency basis. I have often approved emergency rules on the basis that the language in the statute that authorizes an agency to promulgate rules also explicitly states that the rules must be promulgated by a certain date. There is no such deadline in the statute that is at issue here.

Finally, at the time I reached my decision, I was not aware that DMV had accepted program participants prior to filing the proposed emergency rule. While not commenting on this matter with regard to the DMV rule since it was not presented as an issue for my consideration at the time that I made my decision, I would generally caution against allowing agencies to justify emergency rules on the basis that they have already begun operating programs. Such a precedent would create a large loophole so that agencies could circumvent the regular rulemaking procedures, in effect by creating their own "emergencies."

The interpretation we have taken with the emergency provision in this situation is in keeping with the historical guidance we have received from members of the Legislative Rulemaking Review Committee. I believe that to apply a different standard in a specific situation would make us vulnerable to legitimate and successful law suits on the application of this law.

Sincerely,

Ken Hechler
Secretary of State

KEN HECHLER
Secretary of State

MARY P. RATLIFF
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December 1, 1993

The Honorable Joe Manchin, III
Senate Co-Chair
The Honorable Brian A. Gallagher
House of Delegates Co-Chair
W. Va. Legislature
Legislative Rule-Making Review Committee
Room M-152, State Capitol
Charleston, West Virginia 25305

Dear Senator Manchin and Delegate Gallagher:

I am writing in response to your letter dated November 18, 1993 in which you asked me to reconsider my interpretation of West Virginia Code, §29A-3-15(c) and to accept instead one you described in your letter. Since I explained the interpretation that has always been the policy of the Secretary of State at some length in my letter to you dated November 5, 1993, I will not reiterate it here.

I believe that I would be inconsistent and lack objectivity if I were to accept your interpretation. Following your approach, there are other interpretations besides the one you recommend, including ones that would support our past interpretation. For example, maybe the legislature really intended to include subdivision five, rather than, as you suggest, exclude subdivision one. I think it would be dangerous for me to conclude on the basis of an editor's footnote that there is a clerical error in statutory language.

Without a more compelling legal basis to justify it, changing our interpretation would introduce a capricious element into the emergency rulemaking process. It would be fundamentally unfair to those in the past who were not able to avail themselves of this new interpretation.

I also think that the policy reasons I set forth in my earlier letter strongly argue in favor of our past interpretation. I sincerely warn the members of the legislature not to change the statute to allow agencies to refile emergency rules or

to allow the Secretary of State to reconsider a rule that has been disapproved because that would make the emergency rulemaking process vulnerable to abuse by agencies. I am concerned that such a change would result in the process becoming administratively unmanageable.

There are many instances in which I wish the decisions were much easier to make. If my staff could sit down with yours to discuss the complexities of these decisions so that more specific statutory criteria could be developed for reviewing emergency rules, I would be very happy to have them work with you.

Sincerely,

Ken Hechler
Secretary of State

SIERRA CLUB
WEST VIRGINIA CHAPTER
P. O. Box 4142
Morgantown, WV 26504

FILED
JUN 30 8 27 AM '93
OFFICE OF WEST VIRGINIA SECRETARY OF STATE

June 23, 1993

Office of Waste Management, DEP
Attn: Bill Rheinlander
1356 Hansford Street
Charleston, WV 25301

Dear Mr. Rheinlander:

Please accept the following comments on the Title 47, Series 38D rules titled Sewage Sludge Management Regulations. I am writing on behalf of the 1200 members of the West Virginia Chapter of Sierra Club. Additional comments will be submitted by other members and should be considered in addition to those below.

In general, we do not believe that these rules come anywhere close to the legislative intent expressed in Senate Bill 288. Furthermore, they appear to be in violation of the legal requirements for promulgating emergency rules and may be unconstitutional as well. We urge that these rules be withdrawn until rules that meet both the intent of the legislation and constitutional requirements are developed.

1. The fiscal note attached to these rules is in error. To conclude that no fiscal impact will be created is clearly contradicted by the fact that these rules create a new permitting requiorement with requirements for record keeping and review of monitoring data. The rules also establish a serious financial liability for the state which should be considered in assessing the fiscal impact. Finally, the rules assess new fees on the targeted industries to pay for this program. While the impact on citizens may be positive overall, obviously, the fees will create an impact on the regulated industry. While we applaud that impact as needed to regulate those facilities, it should be properly described in this section.

2. Section 1.5 Incorporation by Reference. This provision is very troublesome because it contradicts basic tenets of the regulations. The Legislature fully intended to create a regulatory program that goes beyond the minimal federal statutes. Yet this section clearly places these contradictory provisions into the state's rules. Even worse, these specific federal regulations are not reproduced herein, thus creating a difficult and unwieldy process for defining exactly what the rules are. This section must be deleted and the relevant rules and standards reproduced in these rules. In fact, it is for this very reason that the rules may be unconstitutional. If the relevant provisions are not in these rules, noone knows exactly what rules are being approved.

3. Section 2.8-2.10. The definition of Class A, B, and C Sewage Sludge Processing Facilities grossly distorts the needs of West Virginia's sludge handling capacity. The entire state population does not produce 30,000 tons per month, yet these regs would allow individual facilities that large. They clearly seem designed to legalize existing facilities, rather than regulate the large sludge importing operations that aroused the need for SB 288 in the first place. The size limits on these facilities needs to be reduced by at least a factor of five.

4. Section 2.31 "Pretreatment Publicly Owned Treatment Works". This appears to be the only distinction the rules make among sludges "according to ... the contaminat level of the sewage sludge" (20-5F-2b, paragraph 12). Since this definition refers to a part of federal regulations not further defined in these rules, it is impossible to know who would be covered under such a definition, how it relates to the contaminant load of the sludge, or how the fees described in Section 6 are to be assessed.

This issue is crucial to the success of these rules. The legislation intended to assess higher fees on sludges with high contaminant levels than on sludges that are relatively clean. This would provide a clear incentive to reduce the levels of pollutants in the sludges, thereby assuring that their land application can be achieved without environmental risk.

We believe that, instead of basing fees on a pretreatment vs. nonpretreatment basis, the fees should be based directly on the measured contaminant levels. Categories of sludges should be established based on these contaminant levels, with land application of sludges restricted or prohibited for categories with high contaminant levels. The cleanest category of sludge would have contaminant levels equivalent to background soil levels and would be available for unrestricted use on food crops, lawns, and other facilities where the public could be exposed. Sludges in this category, by their very nature, would be exempted from lifetime soil loading restrictions and other rules and could be distributed essentially as a fertilizer. This minimal regulatory burden would encourage POTWs to clean up their sludge, thereby reducing the overall pollution load to the environment. Categories with higher contaminat levels would be subject to fees, lifetime soil loading rates, and other regulatory requirements needed to assure that beneficial uses really are beneficial to the environment.

5. Section 3.1. In addition to the state constitutional questions cited above, federal regulations 40 CFR part 503 are an inadequate basis for developing these rules. The restrictions in Part 503 were weakened well beyond what is scientifically credible by then-Vice President Quayle's Council on Economic Competitiveness. To base West Virginia's sludge program on these rules is not just counter to SB 288, it is down right <u>embarrassing</u>.

6. Section 4.2.1.g. In addition to providing the information required, language should be added to require that these data are available on the sludge BEFORE it is disposed or land applied. This information would be required to assess the appropriate fees and to define the proper sludge category to assure that it is properly disposed of. In this way, sludges that can be used for beneficial uses would be available for those uses, while sludges with higher contaminant loads would be prevented from contaminating cleaner sludges.

7. Composts which utilize sewage sludge should be pathogen-free. These rules should be amended to add that requirement to any compost not disposed of in landfills. Composting is a time-honored beneficial practice, but unless properly managed, can result in unsafe materials. These rules must be adequate to assure that compost prepared for distribution in the environment be safe enough to retain the good reputation of the term 'compost'.

8. Section 4.2.3.a. Soil analysis for land application sites must include analysis for heavy metal content. Without this analysis, these rules virtually guarantee that lifetime loading rates will result in metal concentrations exceeding safe limits. The rules should be intended to prevent, rather than guarantee this result.

9. Section 4.2.3.n. For mineland reclamation sites, procedures to maintain soil pH above 6.2 should be increased to 30 years, and monitoring reuirements and bonding requirements should be added to assure that this is done. Contrary to agricultural sites, sludge additions to minelands will likely be one-time disposal actions rather than on-going soil improvement actions. Thus there will be a strong incentive for disposers to dump as much sludge as cheaply as possible and then "walk away" from such sites. The history of the coal industry provides substantial evidence of this practice at these sites and the rules must recognize this continuing history of behavior.

10. Section 6. Fees. The fees described herein are an essential part of the regulatory process. They are however, inadequate to meet the intent of the bonding language of SB 288. Without bonding language adequate to assure environmental remediation, and with the provisions allowing land disposal of sludges with high levels of contaminants, the state is creating a huge financial liability under these rules. The history of the state's mine reclamation funding and bonding inadequacies should provide plenty of evidence of the fiscal dangers that this program could create. While the fees are necessary, bonds for highly contaminated sludge applications are even more necessary.

11. Appendix A. The frequency of monitoring may be appropriate for very small facilities such as those constituting the majority of West Virginia's POTWs, however it is grossly inadequate for facilities that import large amounts of sludge. These are the

very facilities that could create environmental catastrophes by importing highly contaminated sludges. Monitoring data should be required for every load BEFORE it is unloaded. Requirements for sending back to the originating location those loads that exceed contaminant levels should be added.

The Sierra Club does not seek to halt truly beneficial uses of sewage sludge, in fact, we encourage them. However, the public trust demands that beneficial uses are properly managed so that they do not become environmental abuses. These rules should be rewritten to assure that goal.

Sincerley,

James Kotcon

James Kotcon, Chair
594-3322 (h) 293-3911 (o)

cc:
Del. Brian Gallagher
Sen. Joe Manchin
Ken Hechler, Secretary of State

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OFFICE OF WEST VIRGINIA
SECRETARY OF STATE

July 8, 1993

Secretary of State Ken Hechler
State Capitol Complex
Charleston, WV 25305

Dear Secretary Hechler:

My colleagues and I have spent the past several weeks examining the state's newly promulgated Series 38D regulations, prepared pursuant to SB 288, the sewage sludge regulation bill passed during this year's regular legislative session. During this time, we have grown increasingly alarmed at the degree to which the proposed regulations fail to comply with the policy guidelines established by SB 288.

Several weeks ago, I submitted to you a synopsis of our concerns regarding the original draft of the regulations. We provided the same document to the Division of Environmental Protection. DEP has recently provided us with an rewritten version of the regulations, incorporating a few improvements and a number of essentially cosmetic changes. We are convinced that the Division has not yet brought its work into compliance with the language or intent of SB 288.

In fact, the disparity between these regulations and the new state law is still such that we feel obligated to request that you consider exercising your power, as granted by West Virginia Code, to refuse to approve emergency regulations or parts thereof.

We thank you for your time and consideration.

Respectfully,

Jedediah S. Purdy
Jedediah S. Purdy

Norman R. Steenstra
Norman R. Steenstra

David L. Grubb
David L. Grubb, Esq.

WEST VIRGINIA-CITIZEN ACTION GROUP
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1. Our first concern is that the DEP incorporates into the Series 38D regulations by reference the great bulk of the federal CFR 40, Part 503 regulations. While this EPA document does provide certain language that might be usefully synthesized with state-promulgated regulations to produce a comprehensive regulatory package, the slapdash union of 503 with the 38D draft regulations produces a package rife with contradiction and noncompliance with code. 288 mandates that maximum levels in land-applied sewage sludge be compatible with background metals levels in the recipient soil, whereas the 503 regulations explicitly ignore background levels; 288 enumerates an impressive list of reporting requirements, virtually none of which are present in the 503 reporting section. These egregious examples serve only to highlight a few of the many contradictory points that demonstrate the 503 regulations, when written into state code with so little discrimination, to be incompatible with state policy.

2. SB 288, 20-5F-2b (b) (6) mandates that the regulations at issue require, "That no person or entity be allowed to apply sewage sludge to land in a manner that will result in exceeding the maximum soil concentration for all pollutants, including, but not limited to, arsenic, cadmium, chromium, copper, lead, mercury, molybdenum, nickel, selenium and zinc...." The intent of this language is to safeguard soil quality by ensuring that calculations of the maximum acceptable quantities of pollutants that may be land-applied without exceeding safe limits of cumulative soil pollutant contents incorporate the background levels of those pollutants in the soil. The legislature meant thereby to control the total concentration of pollutants in any soil to which sewage sludge is applied, rather than merely the quantities added to pre-existing levels..

47-38D-3.2.2. addresses this issue primarily through the incorporation of 40 CFR Part 503, stating simply that, "No person or entity shall be allowed to apply sewage sludge to land in a manner that will result in exceeding the maximum soil concentration for all pollutants, including, but not limited to, arsenic, cadmium, chromium, copper, lead,

mercury, molybdenum, nickel, selenium and zinc, to be determined upon cumulative loading rates of 40 CFR, 503.13(b)(2) and 503.12(e)(2) and soil testing requirements developed under these regulations."

By incorporation of the 40 CFR Part 503 regulations, the DEP includes the following language concerning land application practices, from 503.12(e)(1)(ii): "If bulk sewage sludge subject to the cumulative pollutant loading rates in 503.13(b)(2) has not been applied to the site since [insert 120 days after the effective date of this part], the cumulative amount for each pollutant listed in Table 2 of 503.13 may be applied to the site in accordance with 503.13(a)(2)(i)." This language, in combination with the absence of any reference to background levels elsewhere in 40 CFR Part 503, assumes the soil background levels of all pollutants to be zero. Thus, the regulations control not the total pollutant concentration of the soil, but only the total quantity of pollutants applied to the soil after these regulations take effect. This effect diverges radically from legislative intent.

The addition of the provision for "testing requirements developed under these regulations" is, in the words of Senator Don Macnaughton, author of 20-5F-2b(b)(6), "a cop-out." DEP explains in its Responsiveness Summary that, ". . . the agency has yet to determine if adequate soil testing is available that will address the concerns expressed . . ." Such testing has long been routine in, among other jurisdictions, the Canadian province of Ontario, where pollutant content standards range from two to one hundred times as high as the numbers West Virginia intends to adopt. Several commentators have submitted excerpts from Ontario's regulations, along with relevant abstracts, to the DEP. These submissions should certainly have served to facilitate the Division's determinations, but seem not to have done so.

3. SB 288, 20-5F-2b(b)(8), mandates that pursuant regulations ensure, "That information relating to the disposal of sewage sludge is available to affected communities." Although they contain requirements that tonnage and pollutant contents be reported to local solid waste authorities, neither the Part 503 nor the Series 38D regulations make any reference to the dissemination of information to the public.

4. SB 288, 20-5F-2b(b)(1), stipulates, "That entities either producing sewage sludge within the state or importing sewage sludge into the state are required to report to the division the following:

(i) The specific source of the sewage sludge

(ii) The amount of sewage sludge actually generated or imported

(iii) The content of heavy metals, pathogens, toxins or vectors present in the sewage sludge; and

(iv) Each location that the sewage sludge is stored, land applied or otherwise disposed of; the amount so stored, land applied or otherwise disposed of; and the capacity of that location to accept sewage sludge.

The state regulations repeat these stipulations in 47-38-4.2.1 and 4.2.2, 5.1.1, and 5.2.2. but as information mandated only to appear in permit applications or be provided

for in newly issued permits. As no language within the regulations explicitly prevents current operators from receiving modifications from their extant permits, rather than obtaining new and separate permits, these reporting requirements seem not to apply to those operators. As the activities of said individuals comprise nearly all commercial sludge processing in the state, this loophole potentially exempts from most reporting requirements the very entities the regulations were intended to control, thereby wholly contradicting the intent of SB 288.

5. SB 288 establishes a sewage sludge mangement program within DEP, which the Division intends to fund through fees assessed on the production and importation of sludge intended for land application. The latest draft of the Series 38 regulations alters the applicability of these fees from "wet" to "dry" tons of sludge. As sludge loses eighty percent of its weight during the curing process, this action guarantees that the already bare-bones program will operate at no better than one-fifth of its originally envisioned funding level. This self-evisceration raises serious questions about the DEP's ability and willingness to provide adequate protection to the people of West Virginia, and seems reason enough in itself to block the approval of these regulations until they can be more thoroughly scrutinized.

WETZEL COUNTY SOLID WASTE AUTHORITY

200 North Street, Box 9, • New Martinsville, WV 26155 • Phone: (304) 455-5262

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OFFICE OF WEST VIRGINIA SECRETARY OF STATE

Administrative Law Division
Secretary of State
Capitol Bldg.
Charleston, WV 25305
Attention: Judy Cooper

July 14, 1993

Dear Ms. Cooper:

I'm writing on behalf of the Wetzel County Solid Waste Authority to strongly urge you to reject Title 47, Series 38D, Sewage Sludge Management Regulations for a number of reasons, but primarily because they are in direct conflict with the language in SB 288. The wording of these regulations is so ambiguous that they exacerbate rather than alleviate the problem they were intended to address.

The Division of Environmental Protection created the sewage sludge crisis by linguistically re-classifying sewage sludge as fertilizer instead of waste. Up until July, 1992, sewage sludge placed in the Brooke and Wetzel County Landfills was classified as waste, the tonnage counted against the monthly tonnage and all appropriate assessment fees were charged and paid to both the state and the host county waste authorities. After July of 1992, when the Office of Waste Management was transferred from the Division of Natural Resources to the Division of Environmental Protection, the Office of Waste Management adopted the policy that "composted" sewage sludge would be exempt from any assessment fees and would not count against the monthly tonnage.

There were no changes in statute and no changes in the rules and regulations. The Office of Waste Management of the Division of Environmental Protection arbitrarily decided to change their policy. No notification was given to either the Brooke or Wetzel County Solid Waste Authorities of the DEP's change in policy. When Brooke and Wetzel County Solid Waste Authorities discovered a 108,000 ton per year contract that was destined to come to the landfills in their counties, they discovered the DEP had adopted a policy that was the costing the state of West Virginia $1 million per year in lost assessment fees for one contract.

Much noise was made in the press and the legislature sought to remedy the situation by passing Senate Bill 288. To ensure the policy of exempting sewage sludge from monthly tonnage limits and applicable assessment fees would terminated, 20-5F-2b(e) stated, "All sewage sludge placed in, or upon or used by a solid waste facility or processed or handled, pursuant to a permit issued by the division of environmental protection, shall be subject to the same tipping and other fees levied by this chapter on the

disposal of solid waste and shall be included in said facility's total tonnage, subject to the limitations established in this article and the provisions of article nine of this chapter:"

It appears the DEP is attempting to circumvent this statutory requirement in how they word the rules and regulations. In section 4.1.1. of the rules and regulations any person who processes sewage sludge must first obtain a solid waste facility permit. In the case of any facility that already has a solid waste permit from the DEP, there are no requirements to file a permit modification, either major or minor, and no requirements that such a drastic change in land use for solid waste purposes comply with the host county or regional solid waste authority's siting plan. There are also no provisions requiring the host solid waste authority be notified of any sewage sludge processing that would take place at a permitted facility.

In a July 8, 1993 conversation with Clifton Browning of the DEP, I asked Mr. Browning if this meant that any facility holding a permit from the DEP was exempt from public notification and a public comment period, he stated that was the case. When I expressed our Authority's vigorous objection of grandfathering of the Wetzel County solid waste facility, I was told that any party who didn't agree with the rules and regulations was welcome to take the DEP to court. Enclosed please find a letter to Mr. Browning from our Authority regarding our July 8, 1993 conversation. Our Authority never received specific answers to our questions regarding how far the grandfathering went. We wanted to know if the lack of permit modification meant that the Brooke and Wetzel facilities could continue to exempt their tonnage and not pay assessment fees. This question was never clearly answered.

If it is the intent to grandfather and exempt all facilities holding a solid waste facility permit from tonnage limitations and fee assessments, this clearly violates both the intent and the letter of the law in regard to 20-5F-2b(e). Our Authority recently discovered the Wetzel County Landfill does not include sewage sludge in their daily tonnage reports. Sewage is recorded on individual weigh slips not included in the daily total and is classified as "mixed compost materials". It should be noted that in 20-5F-2(dd) the definition of sewage sludge reads as follows: '"Sewage sludge" means solid semisolid or liquid residue generated during the treatment of domestic sewage in a treatment works. Sewage sludge includes, but is not limited to, domestic septage, scum, or solids removed in primary, secondary or advanced wastewater treatment process and a material derived from sewage sludge ...'

This attempt to linguistically reclassify sewage sludge as "mixed compost materials" is yet another flagrant violation of both the letter and the intent of the law. If this is the loophole the DEP is using to exempt sewage sludge from being counted as monthly tonnage, it too flies

in the face of the law. We are enclosing a copy of the computer print out of the daily log of the Wetzel County Landfill for july 13, 1993, a handwritten copy of the weight slips for mixed compost materials represented to our Authority to reflect the sewage sludge dumped at the facility on the same day, and a type written copy of the same for clarity.

Another section of the code that appears to be contradicted by the rules and regulations is 20-5F-2b(b) which in part states "...All rules, whether emergency or not, shall assure, at a minimum, the following: (i) That entities either producing sewage sludge with the state or importing sewage sludge into the state are required to report to the division the following: (i) The specific source of the sewage sludge; (ii) The amount of sewage sludge actually generated or imported; (iii) The content of heavy metals, pathogens, toxins or vectors present in the sewage sludge; and (iv) Each location that the sewage sludge is stored, land applied or otherwise disposed of; and the capacity of that location to accept sewage sludge."

Section 4.2 of the rule states "Persons required to obtain a permit pursuant to these regulations must provide the following information, in the form and manner prescribed by the Chief...". Since 4.1.1. would exempt any solid waste facility with a permit from obtaining a permit pursuant to these regulations, it would appear said facilities would be exempt from reporting not only the rules and regulations covering 20-5F-2b(b)(1)(i) through ((iv), but any reporting requirements any where in the emergency rule. The code makes no provisions for grandfathering or exemptions. The regulations must conform to the code. The absence of language requiring grandfathered facilities to comply with reporting requirements spelled out in SB 288 is yet another flagrant violation of the code.

20-5F-2b(e) further states "...Provided, That no land within a solid waste facility, but out side a landfill disposal cell, be allowed to accept the permanent application of so much sewage sludge as to exceed the agronomic rate or a rate of fifteen dry tons per acre per year, whichever is less:..." is not addressed in section 4.2 of the regulations.

Another section of the code that regulations don't identify is 20-5F-2b(b)(10). In section 47-38D-6, there are no provisions that incorporate the mandate that the regulation of composting facilities vary according to types and quantities of materials handled. There are no provisions anywhere to mandate consideration of this section of the code. This is yet another example that the filed emergency rule is in direct contradiction of SB 288.

Furthermore, in section 6.3.1., "Producers and importers of sewage sludge or material derived from sewage sludge intended for land application..." leaves a lot of latitude for those seeking to land apply with no established

market or end use required for their needs to escape the fees mandated by 20-5F-2b(e).

From experience we have learned that those who wish to create loopholes to evade fees and scrutiny are extremely able. The intent of SB 288 was to close those loopholes, not perpetuate them. Unfortunately, the rules and regulations promulgated under SB 288 appear to be intent in evading the intent and purpose of that law. The Wetzel County Solid Waste Authority respectfully requests the Secretary of State reject the Title 47, Series 38D Sewage Sludge Management Regulations because they are in direct contradiction with the letter and the intent of law as passed in SB 288.

Sincerely,

Martha Huffman

Martha Huffman
Vice-Chair
Wetzel County
Solid Waste Authority

Enclosures

KEN HECHLER
Secretary of State

MARY P. RATLIFF
Deputy Secretary of State

A. RENEE COE
Deputy Secretary of State

CATHERINE FREROTTE
Executive Assistant

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WILLIAM H. HARRINGTON
Chief of Staff

JUDY COOPER
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DONALD R. WILKES
Director, Corporations

(Plus all the volunteer help we can get)

FAX: (304) 558-0900

August 11, 1993

David C. Callaghan, Director
Division of Environmental Protection
10 McJunkin Road
Nitro, West Virginia 25143-2506

Dear Mr. Callaghan:

On July 8, 1993, I received the proposed emergency rule you filed, Title 47, Series 38D, "Sewage Sludge Management Regulations." Under Chapter 29A of the West Virginia Code, I have 35 days to review your proposed rule to decide whether it should be approved or disapproved. I must disapprove a rule if I determine any one of the following: 1) there is no emergency, 2) the rule was not promulgated in compliance with the Administrative Procedures Act or 3) "the agency has exceeded the scope of its statutory authority in promulgating the emergency rule." W. Va. Code, §29A-3-15a. The statute also authorizes me to conduct a further investigation if the information provided by the agency is insufficient to allow a proper determination, including requiring the agency or other interested parties to submit additional information or comment. W. Va. Code, §29A-3-15a.

Although the first two criteria are satisfied, I need additional information to reach a determination about whether the Division of Environmental Protection is exceeding the scope of its statutory authority. I am reviewing your proposed emergency rule very carefully. Not only have I received many public comments opposing it, but the Legislative Rule-Making Review Committee sent me a letter recommending that I disapprove your proposed emergency rule.

Therefore, I ask that you respond to the following concerns that suggest that the Division is exceeding the scope of its statutory authority. In the interest of time, I am briefly describing these concerns here. Attached are public comments that I received which describe in greater detail the basis of the concern.

1. At 3.1. of the proposed emergency rule, on page 6, the rule incorporates 40 CFR 503 by reference and it is incorporated throughout the rule, thereafter. Is the substance of "Federal 503" authorized by W. Va. Code, §20-5F-2b and compatible with it? Please provide me with a copy of 40 CFR 503 or the portion of it that is being incorporated by reference.

2. At 3.2.3. of the proposed emergency rule, on page 7, the rule exempts solid waste authorities, whereas, §20-5F-2b(e) explicitly includes solid waste authorities.

3. At 6.3. of the proposed emergency rule, on page 16, the fees are applied to "dry" tons of sewage sludge. Does this mean that fees will not

be assessed for "wet" sewage sludge? The statute does not allow for such an exception.

4. Again, at 6.3., the rule assesses fees on sewage sludge intended for land application. This language appears to create a loophole because fees are assessed at the time of delivery to a solid waste facility. It is possible that some sewage sludge that is applied to land may not have been intended for land application at the time of delivery. Whereas, §20-5F-2b requires that certain fees be assessed for all land application of sewage sludge.

5. At 6.3.3. of the proposed emergency rule, on page 16, please clarify the meaning of that provision. It appears to apply only one of the fees assessed by Chapter 20, whereas, §20-5F-2(b)(e) requires that all the fees assessed by Chapter 20 must be applied to any sewage sludge that is subject to its provisions.

6. Finally, as a general concern, will the rule permit any grandfathering of existing solid waste facilities? §20-5F-2(b) applies to the operations of all licensed solid waste facilities, including those that are currently licensed. Please explain how the rule ensures that all currently licensed solid waste facilities will comply with §20-5F-2(b), particularly the reporting requirements that are contained in 4.2.1., 4.2.2. and 5.1.1. since these appear to apply only to new applicants for permits.

I look forward to receiving your response to these concerns.

Sincerely,

Ken Hechler

Ken Hechler
Secretary of State

Attachments

The Senate of West Virginia
Charleston

JOHN G. CHERNENKO
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WELLSBURG 26070

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SECRETARY OF STATE

COMMITTEES:
ENERGY, INDUSTRY AND MINING
FINANCE
GOVERNMENT ORGANIZATION
HEALTH AND HUMAN RESOURCES
LABOR (CHAIRPERSON)
MILITARY

August 2, 1993

The Honorable Ken Hechler
Secretary of State
State Capitol Building
Charleston, WV 26505

Re: Senate Bill 288
Proposed Sewage Sludge Regulations

Dear Secretary Hechler:

I am writing with regard to the above matter as both a concerned citizen of Brooke County and a member of the Legislature. I have learned that the Division of Environmental Protection has proposed regulations concerning the recently enacted Senate Bill 288. This legislation sought to protect our State by regulating the disposal of sewage sludge. This bill was of special interest to the Northern Panhandle as Brooke and Wetzel Counties have apparently been designated as sewage sludge dump sites by landfill operators.

Unfortunately, an element at work within our own State government has seen fit to attempt to undermine this legislation through the development of the proposed regulations which have been submitted to your office. Bureaucrats within the Division of Environmental Protection have now submitted for approval administrative regulations which completely subvert each and every meaningful provision of Senate Bill 288 by either exempting operators from its provisions or interpreting these provisions so as to achieve the same goal.

This bill was a product of intense work by 134 duly elected representatives of the people of West Virginia. These legislators considered the present and future needs of our State and the will of our people in enacting this legislation. It was then ratified by Governor Caperton as it was signed into law.

If these regulations are approved by you, the end result is that the law which the entire Legislature worked to create

and which Governor Caperton endorsed, will be completely and permanently rendered meaningless by forces within our own government. Were they truly concerned with the best interests of the public, these persons at the Division would not have promulgated regulations designed intentionally and specifically to counteract the laws of this State. I can only conclude that their actions seek to serve some force other than the best interests of the public.

I respectfully request that you reject these regulations which have been proposed by the Division of Environmental Protection as they are contrary to West Virginia law. To do otherwise will be to permit this renegade element within the executive branch to operate unchecked and to subvert the will of the people of this State, their Legislature, and Governor.

Respectfully,

John G. Chernenko

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OFFICE OF WEST VIRGINIA
SECRETARY OF STATE

July 8, 1993

Secretary of State Ken Hechler
State Capitol Complex
Charleston, WV 25305

Dear Secretary Hechler:

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In fact, the disparity between these regulations and the new state law is still such that we feel obligated to request that you consider exercising your power, as granted by West Virginia Code, to refuse to approve emergency regulations or parts thereof.

We thank you for your time and consideration.

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Jedediah S. Purdy

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Norman R. Steenstra

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David L. Grubb, Esq.

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1. Our first concern is that the DEP incorporates into the Series 38D regulations by reference the great bulk of the federal CFR 40, Part 503 regulations. While this EPA document does provide certain language that might be usefully synthesized with state-promulgated regulations to produce a comprehensive regulatory package, the slapdash union of 503 with the 38D draft regulations produces a package rife with contradiction and noncompliance with code. 288 mandates that maximum levels in land-applied sewage sludge be compatible with background metals levels in the recipient soil, whereas the 503 regulations explicitly ignore background levels; 288 enumerates an impressive list of reporting requirements, virtually none of which are present in the 503 reporting section. These egregious examples serve only to highlight a few of the many contradictory points that demonstrate the 503 regulations, when written into state code with so little discrimination, to be incompatible with state policy.

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47-38D-3.2.2. addresses this issue primarily through the incorporation of 40 CFR Part 503, stating simply that, "No person or entity shall be allowed to apply sewage sludge to land in a manner that will result in exceeding the maximum soil concentration for all pollutants, including, but not limited to, arsenic, cadmium, chromium, copper, lead,

...ercury, molybdenum, nickel, selenium and zinc, to be determined upon cumulative loading rates of 40 CFR, 503.13(b)(2) and 503.12(e)(2) and soil testing requirements developed under these regulations."

By incorporation of the 40 CFR Part 503 regulations, the DEP includes the following language concerning land application practices, from 503.12(e)(1)(ii): "If bulk sewage sludge subject to the cumulative pollutant loading rates in 503.13(b)(2) has not been applied to the site since [insert 120 days after the effective date of this part], the cumulative amount for each pollutant listed in Table 2 of 503.13 may be applied to the site in accordance with 503.13(a)(2)(i)." This language, in combination with the absence of any reference to background levels elsewhere in 40 CFR Part 503, assumes the soil background levels of all pollutants to be zero. Thus, the regulations control not the total pollutant concentration of the soil, but only the total quantity of pollutants applied to the soil after these regulations take effect. This effect diverges radically from legislative intent.

The addition of the provision for "testing requirements developed under these regulations" is, in the words of Senator Don Macnaughton, author of 20-5F-2b(b)(6), "a cop-out." DEP explains in its Responsiveness Summary that, ". . . the agency has yet to determine if adequate soil testing is available that will address the concerns expressed . . ." Such testing has long been routine in, among other jurisdictions, the Canadian province of Ontario, where pollutant content standards range from two to one hundred times as high as the numbers West Virginia intends to adopt. Several commentators have submitted excerpts from Ontario's regulations, along with relevant abstracts, to the DEP. These submissions should certainly have served to facilitate the Division's determinations, but seem not to have done so.

3. SB 288, 20-5F-2b(b)(8), mandates that pursuant regulations ensure, "That information relating to the disposal of sewage sludge is available to affected communities." Although they contain requirements that tonnage and pollutant contents be reported to local solid waste authorities, neither the Part 503 nor the Series 38D regulations make any reference to the dissemination of information to the public.

4. SB 288, 20-5F-2b(b)(1), stipulates, "That entities either producing sewage sludge within the state or importing sewage sludge into the state are required to report to the division the following:

(i) The specific source of the sewage sludge

(ii) The amount of sewage sludge actually generated or imported

(iii) The content of heavy metals, pathogens, toxins or vectors present in the sewage sludge; and

(iv) Each location that the sewage sludge is stored, land applied or otherwise disposed of, the amount so stored, land applied or otherwise disposed of, and the capacity of that location to accept sewage sludge.

The state regulations repeat these stipulations in 47-38-4.2.1 and 4.2.2, 5.1.1, and 5.2.2. but as information mandated only to appear in permit applications or be provided

for in newly issued permits. As no language within the regulations explicitly prevents current operators from receiving modifications from their extant permits, rather than obtaining new and separate permits, these reporting requirements seem not to apply to those operators. As the activities of said individuals comprise nearly all commercial sludge processing in the state, this loophole potentially exempts from most reporting requirements the very entities the regulations were intended to control, thereby wholly contradicting the intent of SB 288.

5. SB 288 establishes a sewage sludge mangement program within DEP, which the Division intends to fund through fees assessed on the production and importation of sludge intended for land application. The latest draft of the Series 38 regulations alters the applicability of those fees from "wet" to "dry" tons of sludge. As sludge loses eighty percent of its weight during the curing process, this action guarantees that the already bare-bones program will operate at no better than one-fifth of its originally envisioned funding level. This self-evisceration raises serious questions about the DEP's ability and willingness to provide adequate protection to the people of West Virginia, and seems reason enough in itself to block the approval of these regulations until they can be more thoroughly scrutinized.

BROOKE COUNTY SOLID WASTE AUTHORITY
P.O. Box 50
WELLSBURG, WV 26070

PHONE NO. (304) 737-0780 FAX NO. (304) 737-0781

FILED
JUL 19 9 25 AM '93
OFFICE OF WEST VIRGINIA SECRETARY OF STATE

July , 1993

Ken Hechler, Secretary of State
Building 1, Suite 157K
State Capitol
Charleston, WV 25305

RE: Title 47, Series 38D, Sewage Sludge Management
Division of Environmental Protection

Dear Mr. Hechler:

In reference to the captioned Legislative Rules filed with your office on July 8, 1993, the Brooke County Solid Waste Authority (BCSWA) submits the following for your consideration in making the decision whether or not to disapprove those Rules. The BCSWA submits that the Division of Environmental Protection (DEP) has exceeded the scope of its statutory authority in promulgating those Rules in contravention of the express direction of the Legislature.

Senate Bill 288 under which these Rules were filed mandates that

> "all sewage sludge placed in, or upon, or used by a solid waste facility or processed or handled, pursuant to a permit issued by the Division of Environmental Protection, shall be subject to the same tipping and other fees levied by this Chapter on the disposal of solid waste...." (Emphasis supplied.) W.Va. Code 20-5F-2b(e).

"This Chapter" means Chapter 20 of the Code wherein the following "tipping and other fees" are levied on the disposal of solid waste:

(a) 20-5F-5a - A solid waste assessment fee for the Solid Waste Reclamation and Environmental Response Fund, the Solid Waste Enforcement Fund, and the Solid Waste Management Board Reserve Fund. (House Bill 2445, 4/10/93).

(b) 20-5N-4 - A solid waste assessment fee for the local County Commission and the Closure Cost Assistance Fund. (House Bill 2445, 4/10/93).

tipping fees

(c) 20-9-13 - A solid waste assessment fee for the Solid Waste Planning Fund.

(d) 20-11-5a - A recycling assessment fee for the Recycling Assistance Fund.

(e) 20-11-5b - A solid and hazardous waste supplemental assessment fee for the Hazardous Waste Emergency Response Fund.

The DEP has exceeded the scope of its statutory authority in the 47-38D-6.3.3 Rule by selectively including only the fees levied by W.Va. Code 20-5F-5a(h)(1) which does not levy a fee at all but only refers to the Solid Waste Enforcement Fund which receives a portion of the fee which is actually levied by a preceding sub-section, W.Va. Code 20-5F-5a(a), and by omitting the other Chapter 20 assessment fees directed by the Legislature as hereinbefore listed.

The DEP has further exceeded the scope of its statutory authority in the 47-38D-6.3.3 Rule by intentionally omitting the "tipping" fees. The "Responsiveness Summary" of the DEP following the June 23, 1993, public hearing on the proposed Rules filed on May 24, 1993, states

> "Section 6.3.3 was amended to remove tipping fees from sewage sludge processing facilities...."

This is clearly contrary to the express language of Senate Bill 288 (W.Va. Code 20-5F-2b(e) as hereinbefore quoted and emphasized.

And, finally, the DEP has exceeded the scope of its statutory authority in the 47-38D-6 Rule if the Chapter 20 fees levied by the Legislature in Senate Bill 288 (W.Va. Code 20-5F-2b(e) on "all sewage sludge" is intended by the DEP to be limited only to "dry" tons. When a solid waste facility receives the sewage

sludge in a "wet" form, it thereafter handles or processes the same regardless of its final form, wet or dry, and ultimate disposition.

"Sewage sludge" is defined in Senate Bill 288 (W.Va. Code 20-5F-2(dd) and in 48-38D-2.31 of the Rules as meaning solid, semi-solid or liquid residue, so that regardless of the form in which it is received by a solid waste facility, it is "all sewage sludge" for fee assessment purposes. Any implication to the contrary in the Rules is clearly outside of the scope of the statutory authority of the DEP.

The BCSWA is also directing a signed copy of these comments to the Legislative Rule-Making Review Committee for its consideration in review of these Rules.

We respectfully request, therefore, that these Rules be carefully examined in light of the foregoing and in light of other comments that they will undoubtedly generate.

BROOKE COUNTY SOLID WASTE AUTHORITY

By Silvio Paesani
Silvio Paesani, Chairman

pc: Legislative Rule-Making
Review Committee
Room M 152B
State Capitol
Charleston, WV 25305

WETZEL COUNTY SOLID WASTE AUTHORITY

200 North Street, Box 9, • New Martinsville, WV 26155 • Phone: (304) 455-5262

FILED

Jul 15 9 47 AM '93

OFFICE OF WEST VIRGINIA SECRETARY OF STATE

Administrative Law Division
Secretary of State
Capitol Bldg.
Charleston, WV 25305
Attention: Judy Cooper

July 14, 1993

Dear Ms. Cooper:

I'm writing on behalf of the Wetzel County Solid Waste Authority to strongly urge you to reject Title 47, Series 38D, Sewage Sludge Management Regulations for a number of reasons, but primarily because they are in direct conflict with the language in SB 28S. The wording of these regulations is so ambiguous that they exacerbate rather than alleviate the problem they were intended to address.

The Division of Environmental Protection created the sewage sludge crisis by linguistically re-classifying sewage sludge as fertilizer instead of waste. Up until July, 1992, sewage sludge placed in the Brooke and Wetzel County Landfills was classified as waste, the tonnage counted against the monthly tonnage and all appropriate assessment fees were charged and paid to both the state and the host county waste authorities. After July of 1992, when the Office of Waste Management was transferred from the Division of Natural Resources to the Division of Environmental Protection, the Office of Waste Management adopted the policy that "composted" sewage sludge would be exempt from any assessment fees and would not count against the monthly tonnage.

There were no changes in statute and no changes in the rules and regulations. The Office of Waste Management of the Division of Environmental Protection arbitrarily decided to change their policy. No notification was given to either the Brooke or Wetzel County Solid Waste Authorities of the DEP's change in policy. When Brooke and Wetzel County Solid Waste Authorities discovered a 108,000 ton per year contract that was destined to come to the landfills in their counties, they discovered the DEP had adopted a policy that was the costing the state of West Virginia $1 million per year in lost assessment fees for one contract.

Much noise was made in the press and the legislature sought to remedy the situation by passing Senate Bill 288. To ensure the policy of exempting sewage sludge from monthly tonnage limits and applicable assessment fees would terminated, 20-5F-2b(e) stated, "All sewage sludge placed in, or upon or used by a solid waste facility or processed or handled, pursuant to a permit issued by the division of environmental protection, shall be subject to the same tipping and other fees levied by this chapter on the

disposal of solid waste and shall be included in said facility's total tonnage, subject to the limitations established in this article and the provisions of article nine of this chapter!"

It appears the DEP is attempting to circumvent this statutory requirement in how they word the rules and regulations. In section 4.1.1. of the rules and regulations any person who processes sewage sludge must first obtain a solid waste facility permit. In the case of any facility that already has a solid waste permit from the DEP, there are no requirements to file a permit modification, either major or minor, and no requirements that such a drastic change in land use for solid waste purposes comply with the host county or regional solid waste authority's siting plan. There are also no provisions requiring the host solid waste authority be notified of any sewage sludge processing that would take place at a permitted facility.

In a July 8, 1993 conversation with Clifton Browning of the DEP, I asked Mr. Browning if this meant that any facility holding a permit from the DEP was exempt from public notification and a public comment period, he stated that was the case. When I expressed our Authority's vigorous objection of grandfathering of the Wetzel County solid waste facility, I was told that any party who didn't agree with the rules and regulations was welcome to take the DEP to court. Enclosed please find a letter to Mr. Browning from our Authority regarding our July 8, 1993 conversation. Our Authority never received specific answers to our questions regarding how far the grandfathering went. We wanted to know if the lack of permit modification meant that the Brooke and Wetzel facilities could continue to exempt their tonnage and not pay assessment fees. This question was never clearly answered.

If it is the intent to grandfather and exempt all facilities holding a solid waste facility permit from tonnage limitations and fee assessments, this clearly violates both the intent and the letter of the law in regard to 20-5F-2b(e). Our Authority recently discovered the Wetzel County Landfill does not include sewage sludge in their daily tonnage reports. Sewage is recorded on individual weigh slips not included in the daily total and is classified as "mixed compost materials". It should be noted that in 20-5F-2(dd) the definition of sewage sludge reads as follows: '"Sewage sludge" means solid semisolid or liquid residue generated during the treatment of domestic sewage in a treatment works. Sewage sludge includes, but is not limited to, domestic septage, scum, or solids removed in primary, secondary or advanced wastewater treatment process and a material derived from sewage sludge ...'

This attempt to linguistically reclassify sewage sludge as "mixed compost materials" is yet another flagrant violation of both the letter and the intent of the law. If this is the loophole the DEP is using to exempt sewage sludge from being counted as monthly tonnage, it too flies

in the face of the law. We are enclosing a copy of the computer print out of the daily log of the Wetzel County Landfill for july 13, 1993, a handwritten copy of the weight slips for mixed compost materials represented to our Authority to reflect the sewage sludge dumped at the facility on the same day, and a type written copy of the same for clarity.

Another section of the code that appears to be contradicted by the rules and regulations is 20-5F-2b(b) which in part states "...All rules, whether emergency or not, shall assure, at a minimum, the following: (1) That entities either producing sewage sludge with the state or importing sewage sludge into the state are required to report to the division the following: (i) The specific source of the sewage sludge; (ii) The amount of sewage sludge actually generated or imported; (iii) The content of heavy metals, pathogens, toxins or vectors present in the sewage sludge; and (iv) Each location that the sewage sludge is stored, land applied or otherwise disposed of; and the capacity of that location to accept sewage sludge."

Section 4.2 of the rule states "Persons required to obtain a permit pursuant to these regulations must provide the following information, in the form and manner prescribed by the Chief...". Since 4.1.1. would exempt any solid waste facility with a permit from obtaining a permit pursuant to these regulations, it would appear said facilities would be exempt from reporting not only the rules and regulations covering 20-5F-2b(b)(1)(i) through ((iv), but any reporting requirements any where in the emergency rule. The code makes no provisions for grandfathering or exemptions. The regulations must conform to the code. The absence of language requiring grandfathered facilities to comply with reporting requirements spelled out in SB 288 is yet another flagrant violation of the code.

20-5F-2b(e) further states "...Provided, That no land within a solid waste facility, but out side a landfill disposal cell, be allowed to accept the permanent application of so much sewage sludge as to exceed the agronomic rate or a rate of fifteen dry tons per acre per year, whichever is less;..." is not addressed in section 4.2 of the regulations.

Another section of the code that regulations don't identify is 20-5F-2b(b)(10). In section 47-38D-6, there are no provisions that incorporate the mandate that the regulation of composting facilities vary according to types and quantities of materials handled. There are no provisions anywhere to mandate consideration of this section of the code. This is yet another example that the filed emergency rule is in direct contradiction of SB 288.

Furthermore, in section 6.3.1., "Producers and importers of sewage sludge or material derived from sewage sludge intended for land application..." leaves a lot of latitude for those seeking to land apply with no established

market or end use required for their needs to escape the fees mandated by 20-5F-2b(e).

From experience we have learned that those who wish to create loopholes to evade fees and scrutiny are extremely able. The intent of SB 288 was to close those loopholes, not perpetuate them. Unfortunately, the rules and regulations promulgated under SB 288 appear to be intent in evading the intent and purpose of that law. The Wetzel County Solid Waste Authority respectfully requests the Secretary of State reject the Title 47, Series 38D Sewage Sludge Management Regulations because they are in direct contradiction with the letter and the intent of law as passed in SB 288.

Sincerely,

Martha Huffman

Martha Huffman
Vice-Chair
Wetzel County
Solid Waste Authority

Enclosures

DEPARTMENT OF COMMERCE, LABOR & ENVIRONMENTAL RESOURCES
DIVISION OF ENVIRONMENTAL PROTECTION
10 McJunkin Road
Nitro, WV 25143-2506

Gaston Caperton
Governor
John M. Ranson
Cabinet Secretary

David C. Callaghan
Director
Ann A. Spaner
Deputy Director

August 12, 1993

FILED
AUG 12 | 23 PM '93
OFFICE OF WEST VIRGINIA SECRETARY OF STATE

The Honorable Ken Hechler
Secretary of State
Building 1, Room 157-K
Charleston, WV 25305

Dear Secretary Hechler:

I am writing to request the withdrawal of regulations submitted July 8, 1993, Title 47, Series 38D, Sewage Sludge Management Regulations. We are requesting withdrawal at this time to allow this agency a short period of time to review and address the issues of concern listed in your letter of yesterday.

We believe in most instances, the concerns can either be explained or addressed with relatively minor changes made to the regulation.

Thank you for your consideration and cooperation.

Sincerely,

David C. Callaghan
Director

DCC/asb

cc: Brian Gallagher
John Ranson
Ann Spaner

WEST VIRGINIA LEGISLATURE
LEGISLATIVE RULE-MAKING REVIEW COMMITTEE
Room M-152, State Capitol
Charleston, West Virginia 25305
(304) 340-3286

FILED
Aug 10 11 41 AM '93
OFFICE OF WEST VIRGINIA
SECRETARY OF STATE

August 9, 1993

Senator Joe Manchin III, Co-Chair
Delegate Brian A. Gallagher, Co-Chair

Debra A. Graham, Counsel
Marie Nickerson, Admr. Assistant

The Honorable Ken Hechler
Secretary of State
State Capitol
Charleston, WV 25314

Dear Secretary Hechler:

The Legislative Rule-Making Review Committee is aware that the Secretary of State is preparing to issue an Emegency Rule Decision regarding the rule proposed by the Division of Environmental Protection-Sewage Sludge Management Regulations. The Committee is very concerned that the proposed emergency rule does not comply with the Legislature's intent as expressed in the enabling statute and therefor exceeds the Division's scope of authority.

On behalf of the Committee, I am requesting that you disapprove the emergency rule under the provisions of W. Va. Code, §29A-3-15, which require you to disapprove an emergency rule where "the agency has exceeded the scope of its statutory authority in promulgating the emergency rule."

Sincerely,

Brian Gallagher
Co-Chairman

BG:mgn

cc: David C. Callaghan, Director
Division of Environmental Protection

DEPARTMENT OF COMMERCE, LABOR & ENVIRONMENTAL RESOURCES
DIVISION OF ENVIRONMENTAL PROTECTION
10 McJunkin Road
Nitro, WV 25143-2506

Gaston Caperton
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August 12, 1993

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We believe in most instances, the concerns can either be explained or addressed with relatively minor changes made to the regulation.

Thank you for your consideration and cooperation.

Sincerely,

David C. Callaghan
Director

DCC/asb

cc: Brian Gallagher
John Ranson
Ann Spaner

8/10/93

Delegate wants law to include sludge hauler

THE ASSOCIATED PRESS

A legislative committee asked the secretary of state Monday to reject state Division of Environmental Protection regulations for the dumping of sludge, a member said.

The Legislative Rule-Making Review Committee did so because the regulations would not cover J.P. Mascaro & Sons, which hauls sludge from Nassau County, N.Y., to landfills in Wetzel and Brooke counties, said Delegate Brian Gallagher, D-Monongalia.

"They'll have to modify the rules before they can be entered. We wanted those guys to pay tipping fees," Gallagher said.

He said the resolution was requested by state Sen. Don Macnaughtan, D-Wetzel.

But Division of Environmental Protection Director David Callaghan said the regulations do not deal with tipping fees. Those are handled by the state Department of Tax and Revenue and deal with land application and composting of sludge, Callaghan said.

Also Monday, Callaghan urged lawmakers to support a bill that would consolidate all environmental regulation under his agency.

The Division of Environmental Protection already oversees waste management, water and air pollution control programs, which were managed by the Division of Natural Resources until the environmental agency was created in 1991.

But Callaghan said the 1,400-page bill, which was submitted too late for action in this year's session, would make the changes law.

"If we don't have some kind of agreement heading into this legislative session, this bill has no chance," Callaghan said. "If this bill doesn't pass, we'll be an agency without a charter."

Halt Out-of-state Garbage, Inc.

~~P.O.Box 115~~ RD 1,Box 148
New Martinsville, WV 26155

Chairman: Herbert L. Heiss
304-455-3668

Secretary: Colleen Moore
304-337-2697

July 10,1993

FILED
93 JUL 13 8 22 AM
OFFICE OF WEST VIRGINIA SECRETARY OF STATE

Ms.Judy Trooper
Sec.of State
Adm.Law Div.
Capitol Bldg.
Charleston WV 25305

Dear Ms.Trooper:

re objections to DEP "sludge" regulations title 47,series 38D.

Following are our primary concerns in brief;detailed comments follow below:

1.The composting of "mixed solid waste" should not be included,and should be expressly prohibited.

2.An existing,permitted landfill proposing to process sludge should be required to obtain a separate permit for this purpose,subject to all local approval requirements present in the code.In their response summary to section 4.0 the DEP states "...**new** sewage sludge processing facilities must obtain a separate permit...".The term **new** implies that the two existing(illegal ?) Mascaro facilities at the Wetzel and Brooke landfills will be grandfathered in.Why?

3.There doesn't seem to be any differentiation between the land application of unprocessed and composted sewage sludge.It seems logical that the unprocessed material,possibly still containing pathogens,etc, should be more closely regulated.

4.The new concept of basing fees on "dry" tons opens up a can of worms,as discussed below.What exactly is a dry ton?It isn't clearly defined.Will the sludge processors demand that their tonnage limits be based on dry tons?Will the landfills demand that garbage limits refer to dry tons?Will the existing 30,000 ton per month cap come to mean dry tons;,ie about 50,000 wet tons per month?A ton is a ton is a ton-don't interject the dry ton concept.Rather just lower the fee rate on wet tons.(for land application only).

1.MIXED SOLID WASTE. SB 288 instructs the director to promulgate rules to regulate "...the efficient and orderly regulation of **sewage sludge**...".Nothing is said about composting mixed waste.This is too

general a term,and its inclusion is sure to promote abuses by the type of unscrupulous operator we have all come to know.The composting of certain non-sludge materials such as yard waste,farm waste and some wood industry waste should be specifically addressed as in some of the earlier drafts leading to SB 288.

2.GRANDFATHERING. In late 1992 Mascaro,in apparent collaboration with officials of the DEP devised a scheme to avoid fees and tonnage limits on sludge on the technicality that composting sludge,even if it was dumped on the landfill or on adjacent land owned by Mascaro constituted "recycling".A shrewd concept conceived to benefit only Mascaro,and the DEP had no legal right to approve this practice without notifying and consulting with the Brooke and Wetzel SWAs.As a result of this apparent collusion Mascasro promptly signed a contract to accept all the sludge from Nassau county,Long Island and was initiating discussuions to accept sludge from another Long Island county,from Brooklyn and from New York City.We have learned that officials from at least some of the above were in contact with the DEP,so they were well aware of what was about to transpire.Rather than alert Wetzel and Brooke counties of the potential problems,the DEP chose to conceal this information and to accomodate Mascaro's scheme.When word of this appeared in the press there was the huge public outrage which led to the enactment (over DEP objections) of SB 288.Still intent in pursuing their previous agenda desite the intent of SB 288,the DEP promulgated the first set of rules which were soundly ridiculed at the 5/25/93 hearing.The revised rules discussed herein were somewhat improved,but still reflect DEP intentions to circumvent much of SB 288 wherever possible.It is this arrogance by DEP "public servants" that prompted Sen.Chernenko to call for the resignation of those we believe to be the primary problem;Director Callaghan and Deputy Director Spaner.We and many others agreee with the Senator.

3.DIEEERENTIATION.In section 2.31 the definition of "sewage sludge" seems to include "...and a material derived from sewage sludge...".Does this mean composted sewage sludge?If so,does a gardener purchasing packaged commercial compost(some of it undoubtedly containg composted sludge) have to comply with the same regulations as a farmer applying unprocessed sludge?This needs to be clarified.

4.DRY TONS. Presumably this concept was devised to accomodate those who objected to the high costs associated with fees for land application based on wet tons.The dry ton concept creates a lot of problems,and it would be far better to achieve the same effect by merely reducing the fee to a flat $0.25 and $0.12 per wet ton in section 6.3.1.

Some potential problems:

a. Definition of a dry ton.Is this a laboratory parameter measured by heating a sample in a forced air oven at 110°C(230°F) until constant weight is achieved(usually 2 hours)? Industry refers to this as "solids" or "non-volatile" content.Such a material does not occur in nature;even "dry" soil contains appreciable moisture,as do(to greater extents) manure,yard waste,composted yard waste,composted sludge,garbage,etc,etc.

b.If the land applicator deals in dry tons,what about the sludge processor?Are they going to then demand the same?Suppose a landfill processes 1000 wet tons per month,applied to his tonnage allotment.Is he now going to pay fees on and count toward his limit only 250 tpm(assuming sludge at 25% solids)? Section 3.6.1 limits acceptance of sludge at a landfill to 25% of the total weight accepted.At present this refers to as-received wet tons.Is this going to change to a dry ton basis?

c.The comment in b. could then lead to a landfill demanding that if sludge is admimistered on a dry ton basis,what about garbage,which contains appreciable moisture as received(even when baled)?Are the current tonnage limits and 30,000 tpm cap based on as-received wet tons going to be converted to dry tons,thereby significantly increasing the amount of garbage dumped in WV?

d.Assessing fees on a dry ton basis handicaps those POTWs that do a good job of de-watering their sludge to a high solids content and favors the inefficient POTWs that produce low solids sludge;a farmer paying the flat 25¢ or 12¢ per ton would naturally prefer to use the higher solids material,reducing problems of land contamination,odor and general messiness.

We strongly urge abandonment of the dry ton basis for fees as proposed in 6.3.1.

BROOKE COUNTY SOLID WASTE AUTHORITY
P.O. Box 50
WELLSBURG, WV 26070

PHONE NO. (304) 737-0780 FAX NO. (304) 737-0781

FILED
JUL 19 9 25 AM '93
OFFICE OF WEST VIRGINIA SECRETARY OF STATE

July , 1993

Ken Hechler, Secretary of State
Building 1, Suite 157K
State Capitol
Charleston, WV 25305

RE: Title 47, Series 38D, Sewage Sludge Management
Division of Environmental Protection

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> "all sewage sludge placed in, or upon, or used by a solid waste facility or processed or handled, pursuant to a permit issued by the Division of Environmental Protection, shall be subject to the same tipping and other fees levied by this Chapter on the disposal of solid waste...." (Emphasis supplied.) W.Va. Code 20-5F-2b(e).

"This Chapter" means Chapter 20 of the Code wherein the following "tipping and other fees" are levied on the disposal of solid waste:

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(b) 20-5N-4 - A solid waste assessment fee for the local County Commission and the Closure Cost Assistance Fund. (House Bill 2445, 4/10/93).

(c) 20-9-13 - A solid waste assessment fee for the Solid Waste Planning Fund.

(d) 20-11-5a - A recycling assessment fee for the Recycling Assistance Fund.

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> "Section 6.3.3 was amended to remove tipping fees from sewage sludge processing facilities...."

This is clearly contrary to the express language of Senate Bill 288 (W.Va. Code 20-5F-2b(e) as hereinbefore quoted and emphasized.

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KEN HECHLER
Secretary of State

MARY P. RATLIFF
Deputy Secretary of State

A. RENEE COE
Deputy Secretary of State

CATHERINE FREROTTE
Executive Assistant

Telephone: (304) 558-6000
Corporations: (304) 558-8000

STATE OF WEST VIRGINIA

SECRETARY OF STATE
Building 1, Suite 157-K
1900 Kanawha Blvd., East
Charleston, WV 25305-0770

WILLIAM H. HARRINGTON
Chief of Staff

JUDY COOPER
Director, Administrative Law

DONALD R. WILKES
Director, Corporations

(Plus all the volunteer help we can get)

FAX: (304) 558-0900

August 11, 1993

David C. Callaghan, Director
Division of Environmental Protection
10 McJunkin Road
Nitro, West Virginia 25143-2506

Dear Mr. Callaghan:

On July 8, 1993, I received the proposed emergency rule you filed, Title 47, Series 38D, "Sewage Sludge Management Regulations." Under Chapter 29A of the West Virginia Code, I have 35 days to review your proposed rule to decide whether it should be approved or disapproved. I must disapprove a rule if I determine any one of the following: 1) there is no emergency, 2) the rule was not promulgated in compliance with the Administrative Procedures Act or 3) "the agency has exceeded the scope of its statutory authority in promulgating the emergency rule." W. Va. Code, §29A-3-15a. The statute also authorizes me to conduct a further investigation if the information provided by the agency is insufficient to allow a proper determination, including requiring the agency or other interested parties to submit additional information or comment. W. Va. Code, §29A-3-15a.

Although the first two criteria are satisfied, I need additional information to reach a determination about whether the Division of Environmental Protection is exceeding the scope of its statutory authority. I am reviewing your proposed emergency rule very carefully. Not only have I received many public comments opposing it, but the Legislative Rule-Making Review Committee sent me a letter recommending that I disapprove your proposed emergency rule.

Therefore, I ask that you respond to the following concerns that suggest that the Division is exceeding the scope of its statutory authority. In the interest of time, I am briefly describing these concerns here. Attached are public comments that I received which describe in greater detail the basis of the concern.

1. At 3.1. of the proposed emergency rule, on page 6, the rule incorporates 40 CFR 503 by reference and it is incorporated throughout the rule, thereafter. Is the substance of "Federal 503" authorized by W. Va. Code, §20-5F-2b and compatible with it? Please provide me with a copy of 40 CFR 503 or the portion of it that is being incorporated by reference.

2. At 3.2.3. of the proposed emergency rule, on page 7, the rule exempts solid waste authorities, whereas, §20-5F-2b(e) explicitly includes solid waste authorities.

3. At 6.3. of the proposed emergency rule, on page 16, the fees are applied to "dry" tons of sewage sludge. Does this mean that fees will not

be assessed for "wet" sewage sludge? The statute does not allow for such an exception.

4. Again, at 6.3., the rule assesses fees on sewage sludge intended for land application. This language appears to create a loophole because fees are assessed at the time of delivery to a solid waste facility. It is possible that some sewage sludge that is applied to land may not have been intended for land application at the time of delivery. Whereas, §20-5F-2b requires that certain fees be assessed for all land application of sewage sludge.

5. At 6.3.3. of the proposed emergency rule, on page 16, please clarify the meaning of that provision. It appears to apply only one of the fees assessed by Chapter 20, whereas, §20-5F-2(b)(e) requires that all the fees assessed by Chapter 20 must be applied to any sewage sludge that is subject to its provisions.

6. Finally, as a general concern, will the rule permit any grandfathering of existing solid waste facilities? §20-5F-2(b) applies to the operations of all licensed solid waste facilities, including those that are currently licensed. Please explain how the rule ensures that all currently licensed solid waste facilities will comply with §20-5F-2(b), particularly the reporting requirements that are contained in 4.2.1., 4.2.2. and 5.1.1. since these appear to apply only to new applicants for permits.

I look forward to receiving your response to these concerns.

Sincerely,

Ken Hechler
Secretary of State

Attachments

1. Our first concern is that the DEP incorporates into the Series 38D regulations by reference the great bulk of the federal CFR 40, Part 503 regulations. While this EPA document does provide certain language that might be usefully synthesized with state-promulgated regulations to produce a comprehensive regulatory package, the slapdash union of 503 with the 38D draft regulations produces a package rife with contradiction and noncompliance with code. 288 mandates that maximum levels in land-applied sewage sludge be compatible with background metals levels in the recipient soil, whereas the 503 regulations explicitly ignore background levels; 288 enumerates an impressive list of reporting requirements, virtually none of which are present in the 503 reporting section. These egregious examples serve only to highlight a few of the many contradictory points that demonstrate the 503 regulations, when written into state code with so little discrimination, to be incompatible with state policy.

2. SB 288, 20-5F-2b (b) (6) mandates that the regulations at issue require, "That no person or entity be allowed to apply sewage sludge to land in a manner that will result in exceeding the maximum soil concentration for all pollutants, including, but not limited to, arsenic, cadmium, chromium, copper, lead, mercury, molybdenum, nickel, selenium and zinc...." The intent of this language is to safeguard soil quality by ensuring that calculations of the maximum acceptable quantities of pollutants that may be land-applied without exceeding safe limits of cumulative soil pollutant contents incorporate the background levels of those pollutants in the soil. The legislature meant thereby to control the total concentration of pollutants in any soil to which sewage sludge is applied, rather than merely the quantities added to pre-existing levels..

47-38D-3.2.2. addresses this issue primarily through the incorporation of 40 CFR Part 503, stating simply that, "No person or entity shall be allowed to apply sewage sludge to land in a manner that will result in exceeding the maximum soil concentration for all pollutants, including, but not limited to, arsenic, cadmium, chromium, copper, lead,

mercury, molybdenum, nickel, selenium and zinc, to be determined upon cumulative loading rates of 40 CFR, 503.13(b)(2) and 503.12(e)(2) and soil testing requirements developed under these regulations."

By incorporation of the 40 CFR Part 503 regulations, the DEP includes the following language concerning land application practices, from 503.12(e)(1)(ii): "If bulk sewage sludge subject to the cumulative pollutant loading rates in 503.13(b)(2) has not been applied to the site since [insert 120 days after the effective date of this part], the cumulative amount for each pollutant listed in Table 2 of 503.13 may be applied to the site in accordance with 503.13(a)(2)(i)." This language, in combination with the absence of any reference to background levels elsewhere in 40 CFR Part 503, assumes the soil background levels of all pollutants to be zero. Thus, the regulations control not the total pollutant concentration of the soil, but only the total quantity of pollutants applied to the soil after these regulations take effect. This effect diverges radically from legislative intent.

The addition of the provision for "testing requirements developed under these regulations" is, in the words of Senator Don Macnaughton, author of 20-5F-2b(b)(6), "a cop-out." DEP explains in its Responsiveness Summary that, ". . . the agency has yet to determine if adequate soil testing is available that will address the concerns expressed . . ." Such testing has long been routine in, among other jurisdictions, the Canadian province of Ontario, where pollutant content standards range from two to one hundred times as high as the numbers West Virginia intends to adopt. Several commentators have submitted excerpts from Ontario's regulations, along with relevant abstracts, to the DEP. These submissions should certainly have served to facilitate the Division's determinations, but seem not to have done so.

3. SB 288, 20-5F-2b(b)(8), mandates that pursuant regulations ensure, "That information relating to the disposal of sewage sludge is available to affected communities." Although they contain requirements that tonnage and pollutant contents be reported to local solid waste authorities, neither the Part 503 nor the Series 38D regulations make any reference to the dissemination of information to the public.

4. SB 288, 20-5F-2b(b)(1), stipulates, "That entities either producing sewage sludge within the state or importing sewage sludge into the state are required to report to the division the following:

(i) The specific source of the sewage sludge

(ii) The amount of sewage sludge actually generated or imported

(iii) The content of heavy metals, pathogens, toxins or vectors present in the sewage sludge; and

(iv) Each location that the sewage sludge is stored, land applied or otherwise disposed of; the amount so stored, land applied or otherwise disposed of; and the capacity of that location to accept sewage sludge.

The state regulations repeat these stipulations in 47-38-4.2.1 and 4.2.2, 5.1.1, and 5.2.2. but as information mandated only to appear in permit applications or be provided

for in newly issued permits. As no language within the regulations explicitly prevents current operators from receiving modifications from their extant permits, rather than obtaining new and separate permits, these reporting requirements seem not to apply to those operators. As the activities of said individuals comprise nearly all commercial sludge processing in the state, this loophole potentially exempts from most reporting requirements the very entities the regulations were intended to control, thereby wholly contradicting the intent of SB 288.

5. SB 288 establishes a sewage sludge mangement program within DEP, which the Division intends to fund through fees assessed on the production and importation of sludge intended for land application. The latest draft of the Series 38 regulations alters the applicability of those fees from "wet" to "dry" tons of sludge. As sludge loses eighty percent of its weight during the curing process, this action guarantees that the already bare-bones program will operate at no better than one-fifth of its originally envisioned funding level. This self-evisceration raises serious questions about the DEP's ability and willingness to provide adequate protection to the people of West Virginia, and seems reason enough in itself to block the approval of these regulations until they can be more thoroughly scrutinized.

BROOKE COUNTY SOLID WASTE AUTHORITY
P.O. Box 50
WELLSBURG, WV 26070

PHONE NO. (304) 737-0780 FAX NO. (304) 737-0781

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OFFICE OF WEST VIRGINIA SECRETARY OF STATE

July , 1993

Ken Hechler, Secretary of State
Building 1, Suite 157K
State Capitol
Charleston, WV 25305

RE: Title 47, Series 38D, Sewage Sludge Management
Division of Environmental Protection

Dear Mr. Hechler:

In reference to the captioned Legislative Rules filed with your office on July 8, 1993, the Brooke County Solid Waste Authority (BCSWA) submits the following for your consideration in making the decision whether or not to disapprove those Rules. The BCSWA submits that the Division of Environmental Protection (DEP) has exceeded the scope of its statutory authority in promulgating those Rules in contravention of the express direction of the Legislature.

Senate Bill 288 under which these Rules were filed mandates that

> "all sewage sludge placed in, or upon, or used by a solid waste facility or processed or handled, pursuant to a permit issued by the Division of Environmental Protection, shall be subject to the same tipping and other fees levied by this Chapter on the disposal of solid waste...." (Emphasis supplied.) W.Va. Code 20-5F-2b(e).

"This Chapter" means Chapter 20 of the Code wherein the following "tipping and other fees" are levied on the disposal of solid waste:

(a) 20-5F-5a - A solid waste assessment fee for the Solid Waste Reclamation and Environmental Response Fund, the Solid Waste Enforcement Fund, and the Solid Waste Management Board Reserve Fund. (House Bill 2445, 4/10/93).

(b) 20-5N-4 - A solid waste assessment fee for the local County Commission and the Closure Cost Assistance Fund. (House Bill 2445, 4/10/93).

tipping fees

(c) 20-9-13 - A solid waste assessment fee for the Solid Waste Planning Fund.

(d) 20-11-5a - A recycling assessment fee for the Recycling Assistance Fund.

(e) 20-11-5b - A solid and hazardous waste supplemental assessment fee for the Hazardous Waste Emergency Response Fund.

The DEP has exceeded the scope of its statutory authority in the 47-38D-6.3.3 Rule by selectively including only the fees levied by W.Va. Code 20-5F-5a(h)(1) which does not levy a fee at all but only refers to the Solid Waste Enforcement Fund which receives a portion of the fee which is actually levied by a preceding sub-section, W.Va. Code 20-5F-5a(a), and by omitting the other Chapter 20 assessment fees directed by the Legislature as hereinbefore listed.

The DEP has further exceeded the scope of its statutory authority in the 47-38D-6.3.3 Rule by intentionally omitting the "tipping" fees. The "Responsiveness Summary" of the DEP following the June 23, 1993, public hearing on the proposed Rules filed on May 24, 1993, states

> "Section 6.3.3 was amended to remove tipping fees from sewage sludge processing facilities...."

This is clearly contrary to the express language of Senate Bill 288 (W.Va. Code 20-5F-2b(e) as hereinbefore quoted and emphasized.

And, finally, the DEP has exceeded the scope of its statutory authority in the 47-38D-6 Rule if the Chapter 20 fees levied by the Legislature in Senate Bill 288 (W.Va. Code 20-5F-2b(e) on "all sewage sludge" is intended by the DEP to be limited only to "dry" tons. When a solid waste facility receives the sewage

sludge in a "wet" form, it thereafter handles or processes the same regardless of its final form, wet or dry, and ultimate disposition.

"Sewage sludge" is defined in Senate Bill 288 (W.Va. Code 20-5F-2(dd) and in 48-38D-2.31 of the Rules as meaning solid, semi-solid or liquid residue, so that regardless of the form in which it is received by a solid waste facility, it is "all sewage sludge" for fee assessment purposes. Any implication to the contrary in the Rules is clearly outside of the scope of the statutory authority of the DEP.

The BCSWA is also directing a signed copy of these comments to the Legislative Rule-Making Review Committee for its consideration in review of these Rules.

We respectfully request, therefore, that these Rules be carefully examined in light of the foregoing and in light of other comments that they will undoubtedly generate.

BROOKE COUNTY SOLID WASTE AUTHORITY

By Silvio Paesani
Silvio Paesani, Chairman

pc: Legislative Rule-Making
Review Committee
Room M 152B
State Capitol
Charleston, WV 25305

WETZEL COUNTY SOLID WASTE AUTHORITY

200 North Street, Box 9, • New Martinsville, WV 26155 • Phone: (304) 455-5262

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OFFICE OF WEST VIRGINIA SECRETARY OF STATE

Administrative Law Division
Secretary of State
Capitol Bldg.
Charleston, WV 25305
Attention: Judy Cooper

July 14, 1993

Dear Ms. Cooper:

I'm writing on behalf of the Wetzel County Solid Waste Authority to strongly urge you to reject Title 47, Series 38D, Sewage Sludge Management Regulations for a number of reasons, but primarily because they are in direct conflict with the language in SB 288. The wording of these regulations is so ambiguous that they exacerbate rather than alleviate the problem they were intended to address.

The Division of Environmental Protection created the sewage sludge crisis by linguistically re-classifying sewage sludge as fertilizer instead of waste. Up until July, 1992, sewage sludge placed in the Brooke and Wetzel County Landfills was classified as waste, the tonnage counted against the monthly tonnage and all appropriate assessment fees were charged and paid to both the state and the host county waste authorities. After July of 1992, when the Office of Waste Management was transferred from the Division of Natural Resources to the Division of Environmental Protection, the Office of Waste Management adopted the policy that "composted" sewage sludge would be exempt from any assessment fees and would not count against the monthly tonnage.

There were no changes in statute and no changes in the rules and regulations. The Office of Waste Management of the Division of Environmental Protection arbitrarily decided to change their policy. No notification was given to either the Brooke or Wetzel County Solid Waste Authorities of the DEP's change in policy. When Brooke and Wetzel County Solid Waste Authorities discovered a 108,000 ton per year contract that was destined to come to the landfills in their counties, they discovered the DEP had adopted a policy that was the costing the state of West Virginia $1 million per year in lost assessment fees for one contract.

Much noise was made in the press and the legislature sought to remedy the situation by passing Senate Bill 288. To ensure the policy of exempting sewage sludge from monthly tonnage limits and applicable assessment fees would terminated, 20-5F-2b(e) stated, "All sewage sludge placed in, or upon or used by a solid waste facility or processed or handled, pursuant to a permit issued by the division of environmental protection, shall be subject to the same tipping and other fees levied by this chapter on the

disposal of solid waste and shall be included in said facility's total tonnage, subject to the limitations established in this article and the provisions of article nine of this chapter!"

It appears the DEP is attempting to circumvent this statutory requirement in how they word the rules and regulations. In section 4.1.1. of the rules and regulations any person who processes sewage sludge must first obtain a solid waste facility permit. In the case of any facility that already has a solid waste permit from the DEP, there are no requirements to file a permit modification, either major or minor, and no requirements that such a drastic change in land use for solid waste purposes comply with the host county or regional solid waste authority's siting plan. There are also no provisions requiring the host solid waste authority be notified of any sewage sludge processing that would take place at a permitted facility.

In a July 8, 1993 conversation with Clifton Browning of the DEP, I asked Mr. Browning if this meant that any facility holding a permit from the DEP was exempt from public notification and a public comment period, he stated that was the case. When I expressed our Authority's vigorous objection of grandfathering of the Wetzel County solid waste facility, I was told that any party who didn't agree with the rules and regulations was welcome to take the DEP to court. Enclosed please find a letter to Mr. Browning from our Authority regarding our July 8, 1993 conversation. Our Authority never received specific answers to our questions regarding how far the grandfathering went. We wanted to know if the lack of permit modification meant that the Brooke and Wetzel facilities could continue to exempt their tonnage and not pay assessment fees. This question was never clearly answered.

If it is the intent to grandfather and exempt all facilities holding a solid waste facility permit from tonnage limitations and fee assessments, this clearly violates both the intent and the letter of the law in regard to 20-5F-2b(e). Our Authority recently discovered the Wetzel County Landfill does not include sewage sludge in their daily tonnage reports. Sewage is recorded on individual weigh slips not included in the daily total and is classified as "mixed compost materials". It should be noted that in 20-5F-2(dd) the definition of sewage sludge reads as follows: '"Sewage sludge" means solid semisolid or liquid residue generated during the treatment of domestic sewage in a treatment works. Sewage sludge includes, but is not limited to, domestic septage, scum, or solids removed in primary, secondary or advanced wastewater treatment process and a material derived from sewage sludge ...'

This attempt to linguistically reclassify sewage sludge as "mixed compost materials" is yet another flagrant violation of both the letter and the intent of the law. If this is the loophole the DEP is using to exempt sewage sludge from being counted as monthly tonnage, it too flies

in the face of the law. We are enclosing a copy of the computer print out of the daily log of the Wetzel County Landfill for july 13, 1993, a handwritten copy of the weight slips for mixed compost materials represented to our Authority to reflect the sewage sludge dumped at the facility on the same day, and a type written copy of the same for clarity.

Another section of the code that appears to be contradicted by the rules and regulations is 20-5F-2b(b) which in part states "...All rules, whether emergency or not, shall assure, at a minimum, the following: (i) That entities either producing sewage sludge with the state or importing sewage sludge into the state are required to report to the division the following: (i) The specific source of the sewage sludge; (ii) The amount of sewage sludge actually generated or imported; (iii) The content of heavy metals, pathogens, toxins or vectors present in the sewage sludge; and (iv) Each location that the sewage sludge is stored, land applied or otherwise disposed of; and the capacity of that location to accept sewage sludge."

Section 4.2 of the rule states "Persons required to obtain a permit pursuant to these regulations must provide the following information, in the form and manner prescribed by the Chief...". Since 4.1.1. would exempt any solid waste facility with a permit from obtaining a permit pursuant to these regulations, it would appear said facilities would be exempt from reporting not only the rules and regulations covering 20-5F-2b(b)(1)(i) through ((iv), but any reporting requirements any where in the emergency rule. The code makes no provisions for grandfathering or exemptions. The regulations must conform to the code. The absence of language requiring grandfathered facilities to comply with reporting requirements spelled out in SB 288 is yet another flagrant violation of the code.

20-5F-2b(e) further states "...Provided, That no land within a solid waste facility, but out side a landfill disposal cell, be allowed to accept the permanent application of so much sewage sludge as to exceed the agronomic rate or a rate of fifteen dry tons per acre per year, whichever is less:..." is not addressed in section 4.2 of the regulations.

Another section of the code that regulations don't identify is 20-5F-2b(b)(10). In section 47-38D-6, there are no provisions that incorporate the mandate that the regulation of composting facilities vary according to types and quantities of materials handled. There are no provisions anywhere to mandate consideration of this section of the code. This is yet another example that the filed emergency rule is in direct contradiction of SB 288.

Furthermore, in section 6.3.1., "Producers and importers of sewage sludge or material derived from sewage sludge intended for land application..." leaves a lot of latitude for those seeking to land apply with no established

market or end use required for their needs to escape the fees mandated by 20-5F-2b(e).

From experience we have learned that those who wish to create loopholes to evade fees and scrutiny are extremely able. The intent of SB 288 was to close those loopholes, not perpetuate them. Unfortunately, the rules and regulations promulgated under SB 288 appear to be intent in evading the intent and purpose of that law. The Wetzel County Solid Waste Authority respectfully requests the Secretary of State reject the Title 47, Series 38D Sewage Sludge Management Regulations because they are in direct contradiction with the letter and the intent of law as passed in SB 288.

Sincerely,

Martha Huffman

Martha Huffman
Vice-Chair
Wetzel County
Solid Waste Authority

Enclosures

DEPARTMENT OF COMMERCE, LABOR & ENVIRONMENTAL RESOURCES
DIVISION OF ENVIRONMENTAL PROTECTION
10 McJunkin Road
Nitro, WV 25143-2506

Gaston Caperton
Governor
John M. Ranson
Cabinet Secretary

David C. Callaghan
Director
Ann A. Spaner
Deputy Director

August 12, 1993

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OFFICE OF WEST VIRGINIA SECRETARY OF STATE

The Honorable Ken Hechler
Secretary of State
Building 1, Room 157-K
Charleston, WV 25305

Dear Secretary Hechler:

I am writing to request the withdrawal of regulations submitted July 8, 1993, Title 47, Series 38D, Sewage Sludge Management Regulations. We are requesting withdrawal at this time to allow this agency a short period of time to review and address the issues of concern listed in your letter of yesterday.

We believe in most instances, the concerns can either be explained or addressed with relatively minor changes made to the regulation.

Thank you for your consideration and cooperation.

Sincerely,

David C. Callaghan
Director

DCC/asb

cc: Brian Gallagher
John Ranson
Ann Spaner

July 8, 1993
Tom Degen
HC 75 Box 324
Chloe, WV 25235

To: Ken Hechler, Secretary of State
Building 1, Suite 157K
1900 Kanawha Blvd. East
Charleston, WV 25305

Dear Ken Hechler,

I am writing to you concerning the Title 47, Series 38D SEWAGE SLUDGE REGULATIONS that the Division of Environmental Protection filed as a proposed rule on May 24, 1993, and will be filing as an emergency rule on July 9, 1993.

For the past four years I have taken an active interest in responsible solid waste management in West Virginia. During that time I have participated in several task force/study groups, including the Governor's task force to study medical waste and a work group formed by the DNR to make recommendations concerning groundwater regulations. I have lobbied for the WV Environmental Council for the past four legislative sessions, always on solid waste issues. Currently I am Secretary of the Calhoun County Solid Waste Authority, a member of the Solid Waste Management Board's Waste Reduction Committee, a member of the board of directors of the WV Environmental Council, vice-chair of the Association of WV Solid Waste Authorities, and a member of the DEP's Composting Regulations Review Team, which was formed to work on what has become the aforementioned Title 47, Series 38D SEWAGE SLUDGE REGULATIONS.

At the public hearing on this rule on June 23, 1993, I submitted sixteen pages of comments, a copy of which I also sent to your office. I found this rule deficient in so many ways that I could not cover all my concerns in those sixteen pages. On July 7, 1993 I received the responsiveness summary and the subsequently revised rule. I still find the rule to be deficient in many areas, but for the purposes of this letter, I am limiting my concerns to those areas which I feel are in direct conflict with the intent of the enacting legislation, Senate Bill 288.

I am asking that your office look very carefully at this rule and my comments, and refuse to file this as an emergency rule on the grounds that it does not implement the intent of the legislation. I feel very strongly that the DEP should withdraw this rule and promulgate one that truly implements the intent of Senate Bill 288. If this rule is filed in it's present form, it will not protect us from the emergency that the legislature has declared, it will exacerbate the emergency.

I do not make this request lightly, and I would appreciate your serious consideration of this matter. I would be more than happy to discuss my concerns with you and your staff, over the phone or in person, at any time that would be convenient for you.

Sincerely,

Tom Degen

cc: Senator David Grubb
Delegate Brian Gallagher
Senator Don McNaughton
Norm Steenstra, environmental coordinator, Citizens' Action Group

Ms. July Trooper.
Since I didn't see this article until after I sent in my objections to the DEP regulations, I am sending this separately, to be included in your files
Hdeheiss

7-13-93

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years, according to studies by DRI/McGraw Hill and the National Association of Manufacturers. Most of them will be in the higher-paying manufacturing and professional services sectors. (It is ironic that the this job-threatening Btu tax proposal came while the administration was pushing for enactment of its job-stimulus package.)

the Senate Finance Committee acted wisely in wiping this tax from the president's deficit-reduction package. We must maintain pressure on our legislators in Washington to prevent this unfair tax from being considered again.

Rotruck, of Keyser, Mineral County, is president of the Association of Natural Resources Workers.

H L Heiss
Rt 1 Box 148
New Mrtnsvl WV 26155

Gazette 7-9-93

Sewage sludge policy may make us nation's septic tank

By Jedediah Purdy

Three months ago, the Legislature acted to protect the state from massive quantities of New York sewage sludge. Now a state agency has drafted regulations that threaten to undermine the intent of the Legislature and make West Virginia the nation's septic tank. These need only the approval of the secretary of state to become the law of the land.

Many of the Mountain State's recent environmental disputes have centered on the import of out-of-state waste, most of it from the East Coast. The latest of these exploded last winter, when state media got wind of two landfill operations in Brooke and Wetzel counties. At those sites, Pennsylvania businessman Pasquale Mascaro was accepting 108,000 tons per year of New York sewage sludge. Due to a loophole in West Virginia solid waste law, Mascaro was able to classify his sludge disposal as recycling, and so was exempted from various fees (amounting to over $1 million per year in lost state revenue), control by local government, and limits on the quantity of waste he could accept annually.

Angered, the Legislature acted decisively during the 1993 session to bring sewage sludge under state control. Both houses passed a strong bill, S.B. 288, creating a statewide sludge management program and establishing the framework for its regulatory structure. The coalition of local and state officials, environmentalists and concerned citizens that had supported the bill seemed to have won a major victory.

However, the battle wasn't, and isn't, over. A successful bill is only a blueprint for state policy. The details of regulation and enforcement, particularly for complex environmental issues, are provided by regulations drafted by state agencies in accordance with the language of newly established code. When the agencies follow the Legislature's blueprint faithfully, a coherent structure of policy results. When the blueprint is ignored, strange and horrible things can happen.

In this case, the Division of Environmental Protection, driven by a swift-approaching deadline, went its own way and drafted a set of regulations so different from S.B. 288 that the two cannot be said to reflect the same policy. The result is a regulatory Babel so fraught with omissions and contradictions that, if not thoroughly rewritten, it will hamstring any effort to control sludge-related activities in the state.

The inadequacies of the regulations lie chiefly in two elements. The first is their dependence on federal Series 503 sludge regulations, among the last documents produced by the Reagan-Bush Environmental Protection Agency, which fully reflect the lack of concern for the environment and public health that characterized those administrations. The DEP incorporates the great bulk of Series 503 into its own package, despite a Grand Canyon-sized rift of disparities between those regulations and the language of S.B. 288.

> The proposed regulations are profoundly, fundamentally flawed.

The second is the excessive "grandfathering" that pervades the regulations, which exempts current operations, e.g., the Brooke and Wetzel sites that originally ignited the controversy, from most regulatory requirements.

S.B. 288 further requires that the amount of heavy metals dumped on West Virginia soils as sludge components not be enough to drive the total metals levels of the soil above safe limits. The bill accomplishes this by stipulating that all contamination limits take into account the amounts of metals already present in the soil. These regulations allow for the possibility of the future calculation of such figures, but, despite the availability of similarly derived figures from several Canadian provinces, effectively ignore that requirement by taking their contamination ceilings directly from the Series 503 regulations. In contradiction to the language of S.B. 288, the series 503 figures explicitly exclude background soil contaminants from their calculations. The result is that our maximum legal levels of metals in sludge are consistently three to four times as high as those of New York, the source of most of our imported sludge.

S.B. 288 requires "that information relating to the disposal of sewage sludge be made available to affected communities." These regulations make no provision whatsoever for public notice or comment prior to most sludge disposal activity, including land application and the opening of a sludge processing operation within an existing solid waste facility. Simply put, this provision of S.B. 288 goes virtually unacknowledged.

Furthermore, there is great likelihood that the DEP will not have funds sufficient to operate even this loophole-ridden program. The regulations as originally conceived paid for enforcement through a levy on all producers and importers of sewage sludge. After a rash of complaints from operators who felt unduly burdened by this fee structure, the division altered the levy to make it applicable to "wet" rather than "dry" tons of sludge. As this material loses roughly 80 percent of its weight during the curing process, the DEP has thereby ensured that its program will operate at no better than one-fifth of its intended funding level.

In response to the same complaints, the division made the levy applicable only to sludge "intended for land application." Needless to say, intent is a subjective and slippery matter, especially in the hands of operators whose taxes vary according to where they claim their product is bound. It would not be surprising to find in a few years that much sludge not "intended for land application" had somehow wound up land-applied after completion of the fee process.

The pattern here is clear. The proposed regulations comply with neither state code nor the standards of intelligent waste management and exacerbate the crisis they ostensibly aim to solve. In a final insult to legislative intent, they do not adequately fund the program they establish. They are profoundly, fundamentally flawed.

The only way to implement the intent of the code and safeguard the health of West Virginians is to do away entirely with the proposed regulations and start anew. Although this proposal will be subject to review by a legislative committee next year, by then the grandfathering process will be complete and other significant damage may have been done. Therefore, the rewriting should begin immediately. I join citizens statewide in urging that the DEP return to the proverbial drawing board, this time paying close attention to the intent of the Legislature and keeping in mind its responsibility to the people of the West Virginia.

Purdy is a staff member of the West Virginia Citizen Action Group based in Charleston. This is an abridgement of a

Charleston Gazette

Pollutant levels in sewage sludge

§47-38D-3.2.2 provides that "No person or entity shall be allowed to apply sewage sludge to land in a manner that will result in exceeding the maximum soil concentration for all pollutants, including, but not limited to, arsenic, cadmium, chromium, copper, lead, mercury, molybdenum, nickel, selenium and zinc, to be determined based, at a minimum, upon cumulative loading rates of 40 CFR, 503.13(b)(2) and 503.12(e)(2) and soil testing requirements developed under these regulations."

The provision presented in §47-38D-3.2.2 is completely contrary to the intent and language of S.B. 288. West Virginia Code §20-5F-2b(b)(6) requires "That no person or entity be allowed to apply sewage sludge to land in a manner that will result in exceeding the maximum soil concentration for all pollutants . . ." I have read the 503 rule, and the loading rates in it are not tied to existing soil concentrations in any way. I have enclosed a table showing allowable concentrations for compost that Ontario and British Columbia have developed. When the Ontario concentrations, which are based on the average metals concentrations in rural soils, are examined, it becomes clear that the 503 numbers are not protective of existing soil conditions, nor do they implement the intent or language of §20-5F-2b(b)(6).

The Ontario numbers or the British Columbia numbers would satisfy the requirements of §20-5F-2b(b)(6) much more so than would the 503 numbers, and I recommend that they be used.

At the public hearing, Senator McNaughton, a Ph.D. chemist who sits on the board of a POTW, submitted written comments that also addressed this issue. He also offered to assist the DEP in developing this portion of the rule. The fact that the DEP did not take advantage of this resource, or consider the numbers from Ontario and British Columbia, would seem to indicate a lack of resolve to implement the intent of the legislation.

Permits required

1. A major concern in Section 4 of the 38D rule is the question of how to handle an existing solid waste facility that wishes to expand its operations to include sludge processing. The version of the rule that the public comment period and hearing were on had the following language:

"4.1.3. For those sewage sludge processing facilities which are located on or within a facility regulated by the division pursuant to a solid waste permit required under Chapter 20, Article 5F, a sewage sludge processing

facility modification will be obtained as a part of the existing solid waste permit and shall include a sewage sludge management plan."

Following is the comment on this issue that I submitted at the public hearing on June 23:

"The language in §47-38D-4.1.3 is almost word for word the same language that was in the bill drafted by the DEP when it was first introduced during the 1993 regular session. That language was intentionally dropped from both the House bill and the Senate bill because it was viewed as a vehicle to grandfather in commercial sludge processing operations that had not undergone the pre-siting and siting requirements of the West Virginia Code. The House and the Senate both passed resolutions in reaction to the massive amounts of sludge that were being processed by commercial operations that had not undergone the siting and public approval requirements of the West Virginia Code. The fact that this language has been put into this rule demonstrates a blatant disregard for the Legislature of the State of West Virginia.

The way that 4.1.3 is worded, a solid waste facility handling relatively "benign" portions of the waste stream, such as a materials recovery facility or a yard waste composting facility, could handle sewage sludge just by filing a management plan. There is not even a provision that the plan needs to be approved by anyone! It is clear that in such instances, a certificate of site approval should be obtained, a Certificate of Need should be obtained, the site should be in a zone authorized by the local authority's siting plan for the operation, the public should be notified and have the opportunity for comment and a hearing, and all other siting and permitting requirements provided for in the Code be should be met. If existing facilities are to process sewage sludge as a part of the existing solid waste permit, then it should be as a major modification which shall require submission of a new permit application subject to all the siting and permitting requirements of the West Virginia Code."

In response to the comments the the DEP received on this issue, the agency dropped the language in what was then 4.1.3. However, the DEP did not replace that language with anything. It would appear that the rule went from unacceptable language on the topic of existing facilities, to no language on the topic! How is the DEP going to handle this issue? How can the public submit informed comment on something that is not addressed in the rule? How are solid waste facilities that wish to process sewage sludge to proceed? If these types of procedures are not spelled out in the regulation, then when, where and how are they to be spelled out? All we are left with is the

language in 4.1.1. that states "No person may construct or operate a sewage sludge processing facility (including mixed waste composting facilities which utilize sewage sludge) or a commercial solid waste facility which processes or handles sewage sludge or materials derived from sewage sludge without first obtaining a solid waste facility permit; provided, That land upon which sewage sludge is applied is not a solid waste facility." This language is vague to the point of meaningless. One could assume that the permit modification section of the Solid Waste Management Regulations would apply, but sludge processing facilities were only just defined and classified as solid waste facilities this past session, and the Solid Waste Management Regulations do not address them. Once again, I submit my comment as follows: " A certificate of site approval should be obtained, a Certificate of Need should be obtained, the site should be in a zone authorized by the local authority's siting plan for the operation, the public should be notified and have the opportunity for comment and a hearing, and all other siting and permitting requirements provided for in the Code be should be met. If existing facilities are to process sewage sludge as a part of the existing solid waste permit, then it should be as a major modification which shall require submission of a new permit application subject to all the siting and permitting requirements of the West Virginia Code."

Section 4.1.3. of the proposed rule states that "For those publicly owned treatment works (POTW) which produce sewage sludge and are regulated by the division pursuant to an WV/NPDES permit required under Chapter 20, Article 5A, a sewage sludge processing facility modification will be obtained by the applicant as a part of the existing WV/NPDES permit and shall include a sewage sludge management plan."

2. The West Virginia Code, §20-5F-2b(c) states that "For those publicly owned treatment works (POTW) which produce sewage sludge and are regulated by the division pursuant to an WV/NPDES permit required under article five-a of this chapter, a sewage sludge processing permit shall be a part of the existing water control permit and shall include a sewage sludge management plan approved by the chief."

The provision that the sewage sludge management plan be approved by the chief should be in the rule.

Bonding

Senate Bill 288, in Section 2b(b)(5) provides "That the director may require a surety bond, deposit or similar instrument in an amount sufficient

to cover the costs of future environmental remediation from producers and importers of sewage sludge; ".

The DEP received numerous comments decrying the lack of any bonding in the rule. Following is the comment that I submitted on this subject:

"Bonding for the processing facilities is covered in Section 3.13 of the Title 47 Series 38 rule. However, bonding for land application projects is not addressed at all in this rule except perhaps through the mechanism of the environmental remediation fee mentioned in 6.3.1. This mechanism appears to have the effect of making the DEP responsible for the environmental remediation. That is unacceptable; the idea is to make the party responsible for the pollution responsible for the remediation, not the taxpayers.

The fact that §20-5F-2b(b)(5) uses the words "may require a surety bond" indicates that there is to be some flexibility in the requirement of the bond. It is understood that such bonding is difficult to get, and it was not the intent of the legislature to require it of operations that are not likely to result in environmental degradation. With pollutant concentrations that truly implement the intent of §20-5F-2b(b)(6), such as the ones I have submitted herein, and with the agronomic rate requirement in 2b(b)(7), I would think that most land applications of the type and size currently being performed by POTWs would not be required to post a bond. The type of operation requiring bonding would be one that is more likely to threaten ground or surface water, soil health and the public health and safety. Such an operation would have the following characteristics:

- *large applications of sludges,*
- *higher contaminant levels, such as British Columbia Concentration Codes 3 and 4, or Ontario's controlled-compost class for restricted use,*
- *involve applications above the agronomic rate, such as the rates up to 25 tons per acre per year that are allowed in the reclamation of surface mine land,*
- *involve sewage sludges that were processed with mixed solid waste,*
- *involve slopes between 6 and 15 percent*

The bonding language from Title 47 Series 38, section 3.13 could be used with some minimal changes:

Title 47, Series 38, section 3.13.2.a could read 'All bonds must be submitted under the requirements of these regulations on a form prepared and furnished by the director, must be made payable to the State of West Virginia, and must provide for continuous liability from the initiation of operations at the ~~facility~~ land application site for the full term of the ~~permit~~ operation and for up to ~~ten (10)~~ five (5) years after final ~~closure of the permit~~ operations have been concluded at the land application site. Any further time period necessary to achieve compliance with the requirements in the closure plan of the permit shall be considered an additional liability period.'

Title 47, Series 38, section 3.13.13. could be reworded to reflect the amounts required for land application sites. I suggest a minimum of $50,000 and an amount of from one thousand to four thousand dollars ($1,000 to $4,000) per acre at the discretion of the director."

The DEP's response to the bonding issue comments in it's responsiveness summary is without merit:

1. The DEP says that it ". . . determined . . . that such a requirement [bonding] would be unmanageable if the intent was to cover each individual land application site." The use of the word "may" in Section 2b(b)(5) clearly indicates that the legislature did not intend to give the DEP a hard and fast order to cover each individual land application site; the DEP was given the latitude to implement a manageable bonding program. However, the approach that the agency used, the remediation fee, imposes a fee on all sewage sludge intended for land application. Each individual land application site is required to pay regardless of the potential for environmental damage that it presents, thus reducing the incentive for producers and importers to design an environmentally sound program.

2. The agency goes on to say in the responsiveness summary that "Very few bonding requirements provide sufficient funds to effectively remediate detrimental impacts." The provision in S. B. 288 does not limit the DEP's ability to set up a bond program that will provide sufficient funds; on the contrary, it authorizes the agency to ". . . require a surety bond, deposit or similar instrument in an amount sufficient to cover the costs of future environmental remediation . . .". In any case, the approach that the agency took, the remediation fee, appears to make the DEP responsible for the environmental remediation, which is not acceptable.

3. The agency, in it's responsiveness summary, tries to justify it's use of the remediation fee by implying that the ". . . or similar instrument" clause

could be used to mean a remediation fee scheme such as the one in the Groundwater Protection Act (§20-5M-9). The "Groundwater Remediation Fund" created in the Groundwater Protection Act is not the outgrowth of some vague "or similar instrument" wording, but specifically named and created in section nine of the act which is five pages long. If the legislature had intended to create a similar remediation fund in S. B. 288, it would certainly have done so with as much specificity as it did in the Groundwater Protection Act.

The actual intent of the "or similar instrument" clause is to refer to the many other forms of financial assurance that are acceptable alternatives to surety bonds without having to name them all. When section 3.13.3 Form of Bond or Other Financial Assurance of the Title 47, Series 38 Solid Waste Management Regulations are read, it can be seen that the "similar instruments" are as follows:

"3.13.3.a. The director will accept the following types of bonds:

3.13.3.a.A. A surety bond;

3.13.3.a.B. A collateral Bond (including cash and securities);

3.13.3.a.C. An escrow account;

3.13.3.a.D. Letters of credit;

3.13.3.a.E. Performance bonding fund participation (as established by the director); and

3.13.3.a.F. A combination of these methods.

3.13.3.b. If collateral bonding is selected by the permittee only the following forms of collateral bonding will be allowed:

3.13.3.b.A. Cash deposit;

3.13.3.b.B. Collateral securities; and

3.13.3.b.C. Certificates:

3.13.3.b.C.(a) Bonds of the United States or its possessions;

3.13.3.b.C.(b) Bonds of the Federal Land Bank;

3.13.3.b.C.(c) Bonds of the Homeowners Loan Corporation;

3.13.3.b.C.(d) Full faith and General Obligation bonds of the State of West Virginia or other states and of any West Virginia county, district, or municipality, or of other states; and

3.13.3.b.C.(e) Certificates of deposit in a bank in this State in favor of the Department."

It is readily apparent that there is nothing in this list of similar instruments that would imply the creation of a remediation fund or the imposition of liability for environmental remediation upon the DEP.

Land application fee

1. Section 6.3.2 of the 38D rule has been amended to read:

"6.3.2. Producers and importers of sewage sludge or material derived from sewage sludge intended for land application shall be assessed a sewage sludge management program fee of $2.50 per dry ton."

My objections to this language are:

* West Virginia Code §20-5F-2b(b)(12) provides that the fee be imposed on ". . . the land application of sewage sludge. . .", not the intention of land application.

* West Virginia Code §20-5F-2b(b)(12) provides that ". . .The fee schedule shall vary according to the volume of materials handled and the contaminant level of the sewage sludge. . .". This proviso was crafted not only to encourage the production of a cleaner material, but to accommodate the smaller POTWs. This provision has been completely ignored in section 6.3.2 of the 38D rule. Not only is this in contradiction with the intent of the Code, it has been the source of much hue and cry from the POTWs who have prevailed in their request that the fee be imposed on "dry" tonnage. This has resulted in an 80% reduction in funding for the DEP, which says in the responsiveness summary that it ". . . will reevaluate its resource requirements in light of this reduction."

If the agency had implemented the intent of the legislature and established a fee structure that varied according to the volume and contaminant levels of the sewage sludge, it could have:

Levied the fee on the actual tonnage that crossed the scales, be it wet or dry,

Imposed a lesser fee on the POTWs (especially the smaller ones),

Imposed a stiffer fee on the large applications proposed by commercial facilities that are more likely to threaten the public health and safety,

Maintained an adequate funding level, and

Provided an incentive to produce a cleaner material.

By ignoring the legislative intent, the DEP has:

Committed itself to relying on guestimates and formulae to arrive at a "dry" ton figure instead of just weighing the material. (Twenty percent solids is considered "dry", yet the sludges generated by different procedures and facilities ranges from a liquid slurry to 50% solids or more.),

Slashed the funding of the program by 80%, which will have a serious impact on the effectiveness of the program,

Punished smaller publicly owned facilities by making them pay as much per ton as large commercial facilities, and

Removed the incentive to produce a cleaner material.

Once again, we see the DEP flying in the face of logic and the Legislature, only to weaken the program and its effectiveness as a regulatory agency.

2. In the responsiveness summary, the DEP states that "Section 6.3.3 was amended to remove tipping fees from sewage sludge processing facilities and to remove the provision for deposit of fees collected in only the Solid Waste Enforcement Fund."

The regulation of tipping fees at solid waste facilities is delegated to the PSC. In my comments to the DEP, I asked if the PSC had been consulted in

the promulgation of the rule. My question went unanswered, and I feel it is a valid one that should be answered.

Although the words "... and deposited in the Solid Waste Enforcement Fund ..." were stricken in section 6.3.3., the reference to Chapter 20, Article 5F, Section 5a.(h)(1) is to the Solid Waste Enforcement Fund only, so the contention in the responsiveness summary is not correct.

The language in West Virginia Code §20-5F-2b(e) states that "All sewage sludge placed in, or upon, or used by a solid waste facility .... be subject to the same tipping and other fees levied by this chapter..." The chapter referred to is Chapter Twenty and it levies more fees than the one referred to as Article 5F, Section 5a.(h)(1), as follows:

> Article 5F, Section 5a levies a solid waste assessment fee that is dedicated not only to the Solid Waste Enforcement Fund, but also to the Solid Waste Management Board Reserve Fund and the Solid Waste Reclamation and Environmental Response Fund.
>
> Article 5N, Section 4 levies a solid waste assessment fee that is dedicated to the county commission in which the landfill is located and the closure cost assistance fund.
>
> Article 11, Section 5a. levies a recycling assessment fee that is dedicated to the "Recycling Assistance Fund" and allocated to a grant program administered by the DNR, personal services and benefit expenses of conservation officers, the governor's office of community and industrial development, the solid waste reclamation and environmental response fund, and the hazardous waste emergency response fund.
>
> Article 11, Section 5b levies a solid and hazardous waste supplemental assessment fee that is dedicated to the hazardous waste emergency response fund.

The section should be amended to accurately reflect the code.

In conclusion, I would like to point out that the situation that caused the legislature to pass a bill and declare in that bill that an emergency existed, had the following components:

The DEP was allowing sewage sludge to be processed and placed in two commercial landfills without being counted as tonnage, and therefore the state was not getting any solid waste assessment fees.

The amount of sewage sludge that was being processed and placed in these facilities was considerable, over 9,000 tons per month, yet because the DEP allowed this sludge to escape being counted as tonnage, no permit modifications were initiated and the permitting scheme that the legislature and the public had worked on over the last several years had been bypassed. The requirements for Certificate of Need, pre-siting notice, certificate of site approval, the provisions of the local solid waste authority siting plans, public notice, public comment, public hearing, county commission approval, public referendum, were all by-passed.

The DEP justified these actions by claiming that the facilities were not disposing of sewage sludge but "recycling" it, and by referring to various recycling loopholes and exemptions in the code, claimed that the above mentioned activities were not subject to solid waste regulations.

The legislature reacted by passing Senate Bill 288, which specifically and intentionally closed the "recycling loopholes" pertaining to sewage sludge and composting, thereby requiring sewage sludge to be counted as solid waste and subject to solid waste assessment fees (except when land applied) Sewage sludge processing facilities were defined as solid waste facilities and thereby subject to the permitting and siting process that other solid waste facilities are subject to. The legislature declared that an emergency existed and directed the DEP to promulgate an emergency rule.

The DEP, in promulgating the initial rule to address this emergency, has only provided that sewage sludge be subject to a portion of one of four solid waste assessment fees, and has taken no steps in addressing how an existing solid waste facility that wishes to process sewage sludge is subject to the permitting and siting process. In fact, today in a phone conversation with the DEP office, Clifton Browning, after consulting with Dick Cooke, told me that the DEP was <u>not</u> going to re-open the permits of the two facilities whose operations brought about this emergency. It is clear that these regulations do not satisfy the intent of the legislature to deal with the emergency. On the contrary, if this rule is filed and approved as it is, the emergency will be institutionalized.

This concludes my comments on the failure of this rule to implement the intent of the Code of the State of West Virginia. I applaud your long standing concern for the people of West Virginia and appreciate your efforts in this matter. Thank you.

Sincerely,
Tom Degen

June 22, 1993
Tom Degen
HC 75 Box 324
Chloe, WV 25235

To: Bill Rheinlander
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1356 Hansford Street
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Jun 28 10 09 AM
OFFICE OF WEST VIRGINIA SECRETARY OF STATE

Enclosed are my comments on the Title 47 Series 38D Sewage Sludge Management Regulations:

Definitions

The definitions 2.8, 2.9, and 2.10 are confusing in that one cannot tell how they differ from the definitions of the corresponding solid waste facilities. Since sewage sludge is a solid waste, and since these definitions also include "mixed solid waste" within them, it is difficult, for example, to tell how 2.8 is different from 2.7.

Sewage sludge is generated at a much lower rate per person than is solid waste. There are approximately 250,000 wet tons per year, or 20,833 tons per month, of sewage sludge generated in West Virginia. 250,000 tons/yr divided by 1,800,000 people equals .14 tons per person per year. This equals 280 lbs/person/yr or 23 lbs/person/month or .78 lbs/person/day. When this figure is compared to the 4.82 lbs/person/day of solid waste that is generated, it becomes clear that to use the same sizing for sewage sludge facilities as for solid waste facilities results in an unrealistic oversizing of classes of sewage sludge facilities (by roughly six times). When enough capacity is added to that figure to maintain a 4:1 sludge to bulking agent ratio (by weight), the result is still an oversizing of about 5 times.

A sludge facility serving a population of 40,000 would be handling about 460 tons per month of sludge. If we round this up to 500 tons per month and figure in enough bulking agent to maintain a 4:1 sludge to bulking agent ratio by weight, a figure of 625 tons per month is arrived at for what might be called a Class C sludge processing facility. Similarly, the Class B facility would be more realistically capped at 2,000 tons per month, and the Class A facility would be more realistically capped at 6,000 tons per month.

I would recommend creating categories of sludge processing facilities that more accurately reflect the per person generation rate of sludge, and do not allow the inclusion of mixed solid waste in the operation. Different designations than the Class A, B, C, such as Class I, II and III would avoid confusion.

Those facilities handling mixed solid waste and sewage sludge should be given a separate status. This is probably already provided for in the landfill and mixed waste processing facility designations.

Storage

Storage is not defined or addressed adequately in these or the 503 regulations. There should be a time beyond which storage of sludge should be considered disposal. There should also be requirements for the storage of sewage sludge. This would vary according to a site's ability to handle the sewage sludge. It would seem reasonable that sewage sludge could not be stored directly on the ground at a land application site for as long as it could be stored at a processing facility equipped with a pad, or liner, or tanks, or a roofed area.

There should also be more strict storage requirements for unstabilized sludge. I offer the following: "Compost piles or windrows shall be constructed within one day following receipt of compostable material at the facility." Similar requirements could be promulgated for processes other than composting.

One year is long enough to be an absolute maximum storage time, and only for processed/stabilized sludge that is stored in such a manner that it is protected from rain and surface water, and that leachate from the sludge can be collected.

Septage should not be stored except within a tank, and then for only a short time such as overnight to two days.

Sludge should not be stored at a land application site beyond the end of the day that it arrives, unless some type of storage provisions are made such as a pad, liner, diversion ditches, and/or roof, or in a tank. In no event shall sludge be stored at an application site over one week, and in no event shall more sludge be stored on a site than is intended/allowed to be land applied.

Exemptions/variances

There are exemptions/variations throughout the rule, and they are too wide open. There should be some mechanism for the DEP to approve/deny/revoke them, and there should be provisions that the DEP give the rationale for granting exemptions and provisions for public notification and comment period when exemptions are applied for. In determining whether to grant a variance/exemption, it should be required that the DEP determine that no substantial health hazard is likely to occur. Also a provision that any variance granted will automatically expire after a predetermined time span, such as on December 31 of the calendar year in which it is granted. Following are some of my major specific concerns relative to exemptions/variances:

- 503.10(b)(1) says "The general requirements in §503.12 and the management practices in §503.14 do not apply when bulk sewage sludge is applied to the land if the bulk sewage sludge meets the pollutant concentrations in §503.13(b)(3), the Class A pathogen requirements in §503.32(a), and one of the vector attraction reduction requirements in §503.33(b)(1) through (b)(8)."

The basic idea is that "clean" sludge does not have to jump through the same hoops as "dirty" sludge. I find 503.10(b)(1) objectionable on several counts:

1. the pollutant concentrations in §503.13(b)(3) do not constitute "clean" sludge. West Virginia Code §20-5F-2(b)(6) requires "That no person or entity be allowed to apply sewage sludge to land in a manner that will result in exceeding the maximum soil concentration for all pollutants . . ." The 503 loading rates are not tied to existing soil concentrations in any way, which is contrary to the intent of S. B. 288. I have enclosed a table showing allowable concentrations for compost that Ontario and British Columbia have developed. When the Ontario concentrations, which are based on the average metals concentrations in rural soils, are examined, it becomes clear that the 503 numbers are not protective of existing soil conditions. Therefore, to base any exemptions on the pollutant concentrations in the 503 rule is misguided.

2. Regardless of which concentration numbers are used, the general requirements and sound management practices should be observed in all cases. Many of the informational requirements relative to reporting, labeling and notification are in these requirements. It is not possible to regulate a sludge program if applicators are not required to notify the permitting authority of their activities. While the management practices in 503.14 are

minimal, the idea that such basic practices as not applying sludge to floodplains, wetlands, on frozen ground, within certain distances of water, that practices such as requiring a label on sludge sold for land application, can be completely ignored without even receiving consideration from the permitting authority or the public, is unacceptable.

The exemption that 503.10(b)(1) provides is detrimental to the intent of S. B. 288 and the language should be stricken from any regulation that West Virginia promulgates concerning sewage sludge.

- 503.16(a)(2) authorizes the permitting authority to roll back the frequency of monitoring. This is based on the assumption that the facility would be receiving sludge from the same source(s) and there would emerge a pattern of consistency over a period of time. However, it would be helpful if this assumption was spelled out. Also, it should be stated that any time a facility receives sludge from a new source, the monitoring requirements would start anew.

- The 38D rule, in 3.3.1.c, allows for a facility to be constructed in the 100 year flood plain if ". . . provisions have been made to prevent the encroachment of flood waters upon the facility." It is not a good idea to site a solid waste facility in the 100 year flood plain, especially if it is one that handles mixed solid waste. Even if there are circumstances where it may be appropriate, there is no provision that the applicant petition for the variance or that the DEP has to evaluate the proposal, inspect the site, or that the DEP has the power to deny the variance. I recommend that the proviso be dropped.

Siting restrictions and location standards

Almost all these standards are inadequate when compared to other states' and are not protective of surface or groundwater or soil health. I submit the following:

Sewage sludge or septage must not be applied on snow, frozen or saturated ground, or during rainfall.

Land within 300 feet of surface water to include springs, ponds, wetlands, or other collection points for surface water.

Land within 1000 feet of drinking water supply wells or other personal water supply.

Land within 600 feet of an occupied dwelling when the owner's consent is obtained in writing, 1,000 feet when the owner's consent is not obtained.

Land that has tested and determined to have a pH of less than 6.5.

Land that has a slope greater than 15%. Land that has a slope greater than 6% but less than 15% may be approved for the surface application of sludge only when it can be shown that there is sufficient vegetation or vegetative residue to prevent ponding, runoff and other nuisances. The application equipment must be capable of uniformly applying the sludge on the slope to prevent ponding, runoff and other nuisances.

Land that has less than 36 inches of soil over bedrock or an impervious pan.

The restriction presented in §47-38D-3.2.1.1 is completely contrary to the intent and language of S.B. 288. West Virginia Code §20-5F-2(b)(6) requires "That no person or entity be allowed to apply sewage sludge to land in a manner that will result in exceeding the maximum soil concentration for all pollutants . . ." The 503 loading rates are not tied to existing soil concentrations in any way. I have enclosed a table showing allowable concentrations for compost that Ontario and British Columbia have developed. When the Ontario concentrations, which are based on the average metals concentrations in rural soils, are examined, it becomes clear that the 503 numbers are not protective of existing soil conditions, nor do they implement the intent or language of §20-5F-2(b)(6).

The Ontario numbers or the British Columbia numbers would satisfy the requirements of §20-5F-2(b)(6) much more so than would the 503 numbers, and I recommend that they be used.

POTW liner requirements

The liner requirements described in §47-38D-3.3.1.d. are inappropriate and prohibitive for the many small POTWs in the state. To have just this one liner requirement will force the smaller POTWs to use the services of a landfill or large commercial sludge processing facility. This will be expensive also, due to transportation costs and tipping and assessment fees, and erode the affected communities' self sufficiency.

By way of example, the Charleston POTW generates about 420 tons per month of sludge. This is one of the larger facilities in the state and is probably capable of complying with the proposed requirement. Most POTWs

in the state are considerably smaller. New Martinsville (pop. 6,000) generates 50 tons per month at 56% solids. Based on the New Martinsville figures, Grantsville (pop. 800) generates 6.5 tons per month at 56% solids. I don't know where to determine the cutoff point, but there has to be allowances made for small quantity generators, it is certainly not an uncommon feature in our state regulations. Such quantities as 6.5 tons per month certainly don't pose the environmental hazard that large quantities do. A spill at such a facility would be comparable to a land application. A reasonable liner for small POTWs would be concrete or asphalt over a clay or bentonite subbase. A 2 to 5% slope to a system of ditches for leachate collection. The requirement for 6 inches of reinforced concrete is only necessary to accommodate the concentrated weights that are encountered with unloading large trucks at commercial facilities. A small POTW processing its own sludge on site would not need the 6 inches of concrete for the processing area since there would not be large trucks delivering sludge. Perhaps a 6 inch pad for loading would be in order at some facilities that would require large trucks to haul the processed sludge away. Any such variances aimed at smaller facilities should prohibit the processing of mixed solid waste.

Applicability of permits

The language in §47-38D-4.1.3 is almost word for word the same language that was in the bill drafted by the DEP when it was first introduced during the 1993 regular session. That language was intentionally dropped from both the House bill and the Senate bill because it was viewed as a vehicle to grandfather in commercial sludge processing operations that had not undergone the pre-siting and siting requirements of the West Virginia Code. The House and the Senate both passed resolutions in reaction to the massive amounts of sludge that were being processed by commercial operations that had not undergone the siting and public approval requirements of the West Virginia Code. The fact that this language has been put into this rule demonstrates a blatant disregard for the Legislature of the State of West Virginia.

The way that 4.1.3 is worded, a solid waste facility handling relatively "benign" portions of the waste stream, such as a materials recovery facility or a yard waste composting facility, could handle sewage sludge just by filing a management plan. There is not even a provision that the plan needs to be approved by anyone! It is clear that in such instances, a certificate of site approval should be obtained, a Certificate of Need should be obtained, the site should be in a zone authorized by the local authority's siting plan for the operation, the public should be notified and have the opportunity for

comment and a hearing, and all other siting and permitting requirements provided for in the Code be should be met. If existing facilities are to process sewage sludge as a part of the existing solid waste permit, then it should be as a major modification which shall require submission of a new permit application subject to all the siting and permitting requirements of the West Virginia Code.

Bonding

Bonding for the processing facilities is covered in Section 3.13 of the Title 47 Series 38 rule. However, bonding for land application projects is not addressed at all in this rule except perhaps through the mechanism of the environmental remediation fee mentioned in 6.3.1. This mechanism appears to have the effect of making the DEP responsible for the environmental remediation. That is unacceptable; the idea is to make the party responsible for the pollution responsible for the remediation, not the taxpayers.

The fact that §20-5F-2b(b)(5) uses the words "may require a surety bond" indicates that there is to be some flexibility in the requirement of the bond. It is understood that such bonding is difficult to get, and it was not the intent of the legislature to require it of operations that are not likely to result in environmental degradation. With pollutant concentrations that truly implement the intent of §20-5F-2b(b)(6), such as the ones I have submitted herein, and with the agronomic rate requirement in 2b(b)(7), I would think that most land applications of the type and size currently being performed by POTWs would not be required to post a bond. The type of operation requiring bonding would be one that is more likely to threaten ground or surface water, soil health and the public health and safety. Such an operation would have the following characteristics:

* large applications of sludges,

* higher contaminant levels, such as British Columbia Concentration Codes 3 and 4, or Ontario's controlled-compost class for restricted use,

* involve applications above the agronomic rate, such as the rates up to 25 tons per acre per year that are allowed in the reclamation of surface mine land,

* involve sewage sludges that were processed with mixed solid waste,

* involve slopes between 6 and 15 percent

The bonding language from Title 47 Series 38, section 3.13 could be used with some minimal changes:

Title 47, Series 38, section 3.13.2.a could read "All bonds must be submitted under the requirements of these regulations on a form prepared and furnished by the director, must be made payable to the State of West Virginia, and must provide for continuous liability from the initiation of operations at the ~~facility~~ land application site for the full term of the ~~permit~~ operation and for up to ~~ten (10)~~ five (5) years after ~~final closure of the permit~~ operations have been concluded at the land application site. Any further time period necessary to achieve compliance with the requirements in the closure plan of the permit shall be considered an additional liability period."

Title 47, Series 38, section 3.13.13. could be reworded to reflect the amounts required for land application sites. I suggest a minimum of $50,000 and an amount of from one thousand to four thousand dollars ($1,000 to $4,000) per acre at the discretion of the director.

Fees

I have expressed my concerns over the remediation fee in the discussion of bonding, above. I feel the remediation fee as presented in §47-38D-6.3.1 should be eliminated in favor of the bonding that S. B. 288 contemplated.

The language in §47-38D-6.3.2 should be amended so that the fee is collected from the actual tons that are land applied.

§47-38D-6.3.3. places the fees collected from sewage sludge in the Solid Waste Enforcement Fund. The language in S. B. 288 states that "All sewage sludge . . . . be subject to the same tipping and other fees levied by this chapter. . ." There is no stipulation in the code that the solid waste assessment fees, the recycling assessment fee, and the solid and hazardous waste supplemental assessment fee all be deposited in the Solid Waste Enforcement Fund in the case of sewage sludge. It is clear that since sewage sludge is solid waste and subject to the "same .... fees" levied by chapter twenty on the disposal of solid waste, that these fees collected from sewage sludge be handled the same as the fees from other solid waste. The code is quite clear on how these fees are dedicated, and they are not all dedicated exclusively to the Solid Waste Enforcement Fund. I refer the reader to §20-5F-5a, §20-5N-4, §20-11-5a, and §20-11-5b. The way that §47-38D-6.3.3.3 is worded, funds are erroneously diverted from other programs. The section should be amended to accurately reflect the code.

This point aside, §47-38D-6.3.3.3 is still not clear. This section is where the intent of §20-5F-2b(e) must be implemented. That section of the code has been difficult to interpret since its drafting, but this rule does nothing to clarify how the DEP is going to implement it.

I was present at the legislature during the regular session and one of my primary focuses was the sludge bill. It was my perception that no party intended for Publicly Owned Treatment Plants (POTWs) to be considered and treated as solid waste facilities. The definition of Solid waste facility mentions "sewage sludge processing facilities", and "sewage sludge processing facilities" are defined as solid waste facilities, but a POTW is the generator of the sludge, not necessarily the processor. In the event that a POTW does process sludge, this is addressed in the definition of Composting facility by the language that states ". . . but does not include a facility for composting solid waste that is located at the site where the waste was generated." This language was put there for the express purpose of accommodating POTWs. Section 2b (c) further addresses this issue by allowing a POTW to have a sewage sludge processing permit as part of its NPDES permit and file a sludge management plan.

All sewage sludge received by a solid waste facility processing sewage sludge (except for POTWs processing on-site) should be subject to tipping and disposal assessment fees and be included in that facility's tonnage. At the time when sewage sludge that is intended for land application is actually land applied, then the facility could be credited for the disposal assessment fees. This should be less of a paperwork problem than waiting until a batch of sludge is processed and tests indicate that it is fit for land application before counting, or charging for, the sludge at all.

§20-5F-2b(12) provides that "The fee schedule shall vary according to the volume of materials handled and the contaminant level of the sewage sludge . . ." This proviso was crafted not only to encourage the production of a "clean" material, but to accommodate the smaller POTWs. This provision has been completely ignored in the 38D rule.

The material would still be included in the facility's tonnage, because in West Virginia a solid waste facility is defined according to how much solid waste it handles (see definition of Class A facility). Whether a sludge processing facility disposes of the product in a landfill, or markets all the finished product for land application, does not change the fact that the facility handled the tonnage that arrived at its gate.

As far as tipping fees are concerned, Section 2b (e) is confusing in that it seems to consider a tipping fee as something that is levied by Chapter Twenty of the Code. It is my understanding that a tipping fee is what the facility charges to meet its overhead and make a profit. If a sewage sludge processing facility has to charge a tipping fee in order to do business, it will be in big trouble if it has to refund that fee when the processed sludge is land applied. If the sludge processing facility is part of a landfill operation, then the facility should credit the customer for the portion of the fees that would have covered the placing of the sludge in a disposal cell. Or perhaps there could be a separate tipping fee for the processing of sewage sludge that would be charged when the material arrives at the facility, and the disposal tipping fee could be charged if and when the material is landfilled. In any case, the rates that a facility can charge are regulated by the PSC, and that is not provided for in Chapter Twenty. Has the PSC been consulted in the promulgation of this rule? If there is to be any regulation of tipping fees as a result of S. B. 288, it would seem that it would be the responsibility of the PSC.

Standards for application

The 38D rule has no operational standards for land application, which is a glaring deficiency. I propose the following:

1. Sludge shall not be held over-night or stockpiled at any site where application is planned. or . . . Sludge that is to be stored overnight at an application site shall be contained in a transfer-storage tank or day tank. In no event shall sludge be stored at an application site over one week.

2. Sludge must be incorporated into the soil as it is applied, or it may be applied onto recently plowed soil and be disced into the soil within twenty-four hours.

3. There shall be no application of sludge by spray irrigation except by special permit issued by the Chief showing that no substantial health hazard is likely to occur and unnecessary hardship will otherwise result.

4. There shall be no application of sludge except during the hours of daylight.

5. Entrances and exits to any field or tract of land on any site shall not be made through a roadside ditch.

6. All vehicles used for transporting sludge shall be so constructed and operated as to avoid spillage or discharge onto public roads. Any spillage which may occur on any roadway will be cleaned daily.

7. Haulers must maintain their vehicles so that there is not "track-on" to roadways, no spillage, and their appearance does not create a nuisance.

8. Public access to the land application site is prohibited for at least 12 months after the last application of sewage sludge or septage, and must be controlled during that period by the use of fences and gates, signs or posted signs. Dairy cattle must not graze for at least 12 months after the last application and other animals, excluding wild game, must not graze for at least two months after the last application.

9. Land application is permitted only when the beneficial value of the sewage sludge or septage as a supply of nutrients or as a soil conditioner can be demonstrated.

10. No sewage sludge may be disposed or applied so as to adversely affect the food chain, cause a health hazard, cause odors or allow vectors.

11. No crop for direct human consumption may be grown on sewage sludge or septage amended soil.

12. Tobacco may not be grown on sewage sludge or septage amended soil.

13. The DEP may revoke the applicator's permit for non-compliance or if a health hazard arises.

Miscellaneous

The incorporation of the Federal regulations 40 CFR part 503 is inappropriate and unwieldy for several reasons:

1. The part 503 rule was not supplied with the series 38D rule for public comment, so the public did not get a chance to really see what is being promulgated. There can be no effective comment on a rule that one has not seen.

2. S.B. 288 has many provisions that require the West Virginia rule to be more stringent than the federal rule. The incorporation of the 503 rule in full undermines the intent of the legislature.

3. The appropriate provisions of the 503 rule should be written into one regulation along with the 38D rule. This would avoid a lot of inconsistency and confusion as well as comply with the provisions of Title 153 Series 6 Standard Size and Format for Rules and Procedures for Publication of the State Register or Parts of the State Register.

§47-38D-4.1.4 defines surface disposal sites as "landfills" that must meet all requirements of Title 47, Series 38 applicable to landfills. This is fine as far as it goes, but in that case, the entire Subpart C of Part 503 should be deleted. Also, as a landfill, they should be subject not only to the Title 47 Series 38 rule, but all the relevant requirements of Chapters twenty and twenty-four.

§47-38D-4.1.2 leaves out the provision in §20-5F-2b(c) that the sewage sludge management plan be approved by the chief. This provision should be in the rule.

§47-38D-4.2.3.n. requires that soil pH be 6.2. This should be changed to 6.5. Every presentation I have heard concerning land application, whether it was given by proponents or opponents of the practice, has specified a pH of 6.5. New York and Pennsylvania both specify a pH of 6.5. That is the number we should use.

There should be language in the rule that exempts individual septic tank owners from the provisions of the rule.

There should be language in the rule that exempts farmers applying sludge in amounts below a specified level on their own farms from paying a fee and perhaps certain other provisions.

This rule and its concomitant incorporation of the 503 rule fails to implement the intent of S. B. 288 in so many ways, as I have noted in my comments, and is generally deficient in so many areas, that the DEP should withdraw this rule and promulgate one that will truly implement the intent of the legislature. With all due respect, I submit that with reference to the land application program, the Office of Waste Management does not have sufficient knowledge to promulgate rules or administer a program. Yet the Chief of the Office of Waste Management seems to have primacy over the program. The West Virginia Sewage Sludge Program: Use and Disposal of Municipal Wastewater Sludge, while it needs strengthening and funding, is a better foundation for a land application rule than is the 503 rule. The knowledge and expertise of the Office of Water Resources, the Office of Air Quality, WVU, the PSC, soil scientists, the Department of Agriculture, the

Solid Waste Management Board, the environmental community as well as representatives of the general public should be utilized in drafting a set of regulations that will truly provide for the efficient and necessary regulation of sewage sludge in West Virginia. If this rule is filed as it is, it will not protect us from the emergency that the legislature has declared, rather it will exacerbate the emergency.

This concludes my comments on the Series 47 Title 38D and the Federal regulation 40 CFR part 503 regulations.

Sincerely,

Tom Degen, member
Solid Waste Interagency
Coordinating Committee and
Composting Regulations Review Team

cc: Senator David Grubb
Delegate Brian Gallagher
Senator Don McNaughton
Ken Hechler, Secretary of State
Norm Steenstra, environmental coordinator, Citizens Action Group

TABLE 2: Metals and PCB Concentrations for MSW Compost in Ontario, British Columbia

	CONCENTRATION (mg/kg dry mass)				
	ONTARIO	BRITISH COLUMBIA CODE			
		# 1	# 2	#3	# 4
ARSENIC	≤ 10	≤ 13	> 13-30	> 30-50	> 50
CADMIUM	≤ 3	≤ 2.6	>2.6-10	> 10-20	> 20
CHROMIUM	≤ 50	≤ 210	>210-500	>500-800	>800
COBALT	≤ 25	≤ 26	> 26-100	>100-300	>300
COPPER	≤ 100	≤ 100	>100-300	>250-500	>500
LEAD	≤ 150	≤ 150	>150-500	>500-1000	>1000
MERCURY	≤ 0.15	≤ 0.83	>0.83-5	> 5-10	> 10
MOLYBDENUM	≤ 2	≤ 7	> 7-20	> 20-40	> 40
NICKEL	≤ 60	≤ 50	> 50-200	>200-500	>500
SELENIUM	≤ 2	≤ 2.6	>2.6-6	> 6-10	> 10
ZINC	≤ 500	≤ 315	>315-800	>800-1500	>1500
PCB	≤ 0.5	--	--	--	--

The maximum allowable metals concentrations for Ontario are based on the average metals concentrations in rural soils which are adjusted for desirable micronutrients. For example, the allowable zinc concentration was increased from 220 to 500 ppm because most soils are zinc deficient. At the moment Ontario has only the one class of MSW compost which can be used on an unrestricted basis; however, a controlled-compost class for restricted use is being considered. Some allowable metals concentrations for this class were increased as follows: arsenic becomes 20 ppm, cadmium 4, copper 100, lead 500, mercury 0.5, and molybdenum 3 (MOE, 1991).

British Columbia has proposed the use of the six classifications of MSW compost listed in Table 3 along with the use restrictions outlined in Table 4. Definitions of mature, semi-mature and fresh compost are provided in the British Columbia guidelines. Maximum acceptable cumulative limits of heavy metals applied to soils within a 45 year period were also established. If any one of the metal concentrations is exceeded, the compost falls in the next lower classification.

TABLE 3: Summary of British Columbia Compost Quality Classifications.

COMPOST TYPE	SS	A	B	C	D	E
METAL CONCENTRATION CODE	1	1	1 OR 2	1, 2 OR 3	1, 2 OR 3	4
FEEDSTOCK	SS	MSW	MSW	MSW	YW SS MSW	MSW
MATURITY	Mature, Semi-mature	Mature	Mature, Semi-mature	Mature, Semi-mature	Fresh	N/A
FOREIGN MATTER	$\leq$ 1%	$\leq$ 1%	$\leq$ 2%	$\leq$ 10%	$\leq$ 10%	N/A
WATER CONTENT	$\leq$ 50%	$\leq$ 50%	$\leq$ 50%	$\leq$ 50%	N/A	N/A

MSW: Municipal Solid Waste; SS: Source Separated Waste; YW: Yard Waste.

TABLE 4: Summary of British Columbia Compost Use Restrictions by Classification.

CLASSIFICATION	RESTRICTIONS
SS and A	Unrestricted Distribution
B	Non-Food Applications: parks, forested lands, forest and horticultural nursery industry
C	Non-Food Applications: parks, forested lands, forest and horticultural nursery industry
D	Land Reclamation Projects with Limited Potential for Public Contact
E	Disposed of in Landfill

PART 503 NUMERICAL CRITERIA FOR LAND APPLICATION

ELEMENT	CUMULATIVE LOAD (kg/ha)	APL (Clean Sludge) (mg/kg)	APLR (kg/ha/yr)
Arsenic	41	41	2.0
Cadmium	39	39	1.9
Chromium	3,000	1,200	150
Copper	1,500	1,500	75
Lead	300	300	15
Mercury	17	17	0.85
Molybdenum	18	18	0.90
Nickel	420	420	21
Selenium	100	36	5.0
Zinc	2,800	2,800	140

APL - Annual Pollutant Load
APLR - Annual Pollutant Loading Rate

FILED

6-24-1993

Secretary of State Ken Hechler
State Capitol Complex
Charleston, WV 25305

Dear Secretary Hechler:

My colleagues and I have spent the past several weeks examining the state's newly promulgated Series 38D regulations, prepared pursuant to SB 288, the sewage sludge regulation bill passed during this year's regular legislative session. During this time, we have grown increasingly alarmed at the degree to which the proposed regulations fail to comply with the policy guidelines established by SB 288.

The disparity between these regulations and the new state law is such that we feel to obligated to request that you consider exercising your power, as granted by West Virginia Code, to refuse to approve emergency regulations or parts thereof.

We thank you for your time and consideration.

Sincerely,

Jedediah S. Purdy

Jed Purdy.

WEST VIRGINIA-CITIZEN ACTION GROUP
1324 VIRGINIA STREET, EAST • CHARLESTON, WEST VIRGINIA 25301 • 304-346-5891

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1. Our first concern is that the DEP incorporates into the Series 38D regulations, wholesale and by reference, the federal Series 40, Part 503 regulations. While this EPA document does provide certain language that might be usefully synthesized with state-promulgated regulations to produce a comprehensive regulatory package, the union of 503 with the 38D draft regulations produces a package rife with contradiction and noncompliance with code. As described in greater detail below, SB 288 proscribes dedicated sewage sludge disposal sites, while the 503 regulations permit them; 288 mandates that maximum levels in land-applied sewage sludge be compatible with background metals levels in the recipient soil, whereas the 503 regulations explicitly ignore background levels; 288 enumerates an impressive list of reporting requirements, few of which are present in the 503 reporting section. These egregious examples serve only to highlight a few of the many contradictory points that demonstrate the 503 regulations, when taken indiscriminately, to be incompatible with state policy.

2. SB 288 (now state code), 20-5F-2b (e), provides that, "...no land within a solid waste facility, but outside a landfill disposal cell, be allowed to accept the permanent application of so much sewage sludge as to exceed the agronomic rate or fifteen dry tons per acre per year, whichever is less:". This language is intended to proscribe so-called "dedicated sites", on which large quantities of sludge are land-applied within a solid waste facility, but outside of the facility's landfill cell. This practice, governed by environmental protection requirements less stringent than those that apply to landfilling, results in both an overload of soil with metals and nitrogen and the transmission of these substances to ground and surface water.

In contrast, WV regulatory code, 47-38D-3.2.3, reads, "No land, except a solid waste facility, shall be allowed to accept or store so much sewage sludge as to exceed the agronomic rate or a rate of fifteen dry tons per year, whichever is less..." Furthermore, the fully incorporated federal regulations, 503.23(b)(1), explicitly allow dedicated sites within such facilities by the following language: "At the time of permit application, the owner/operator of a surface disposal site may request site-specific pollutant limits in accordance with 503.23(b)(2) for an active sewage sludge unit without a liner and leachate collection system . . . when the permitting authority determines that site-specific pollutant limits are appropriate for the active sewage sludge units." In combination, these regulations encourage precisely the practice which the legislature intended to end by the passage of SB 288.

3. SB 288, 20-5F-2b (b) (6) mandates that the regulations at issue require, "That no person or entity be allowed to apply sewage sludge to land in a manner that will result in exceeding the maximum soil concentration for all pollutants, including, but not limited to, arsenic, cadmium, chromium, copper, lead, mercury, molybdenum, nickel, selenium and zinc...." The intent of this language is to safeguard soil quality by ensuring that calculations of the maximum acceptable quantities of pollutants that may be land-applied without exceeding safe limits of cumulative soil pollutant contents incorporate the background levels of those pollutants in the soil. The legislature meant thereby to control the total concentration of pollutants in any soil to which sewage sludge is applied, rather than merely the quantities added to pre-existing levels..

47-38D-3.2.2., addresses this issue through incorporation of the federal 40 CFR Part 503 regulations, stating simply that, "No person or entity shall be allowed to apply sewage sludge to land in a manner that will result in exceeding the maximum soil concentration for all pollutants, including, but not limited to, arsenic, cadmium, chromium, copper, lead, mercury, molybdenum, nickel, selenium and zinc, to be determined upon cumulative loading rates of 40 CFR, 503.13(b)(2) and 503.12(e)(2).

By incorporation of the 40 CFR Part 503 regulations, the DEP includes the following language, from 503.12(e)(1)(ii): "If bulk sewage sludge subject to the cumulative pollutant loading rates in 503.13(b)(2) has not been applied to the site since [insert 120 days after the effective date of this part], the cumulative amount for each pollutant listed in Table 2 of 503.13 may be applied to the site in accordance with 503.13(a)(2)(i)." This language, in combination with the absence of any reference to background levels elsewhere in 40 CFR Part 503, assumes the background levels of all pollutants to be zero. Thus, the regulations control not the total pollutant concentration of the soil, but only the total quantity of pollutants applied to the soil after these regulations take effect. This effect diverges radically from legislative intent.

4. SB 288, 20-5F-2b(e) declares that, "All sewage sludge placed in, or upon, or used by a solid waste facility or processed or handled, pursuant to a permit issued by the division of environmental protection, shall be subject to the same tipping and other levied by this chapter on the disposal of solid waste and shall be included in said facility's total tonnage...." After revision by a subsequent proviso, this language still clearly requires that all sewage sludge land-applied or landfilled within a solid waste facility be subject to solid waste tipping fees.

Similarly, SB 288, levies fees on the production and import of sewage sludge as follows. "20-5F-2b(b)(12) That a fee, to be paid by the producer or importer, be levied and imposed on the land application of sewage sludge, to be collected at a per ton rate, sufficient to cover the costs of the sewage sludge management program."

The Series 38 regulations are clearly intended to reflect these intentions, but are crafted in such a way as to make their effect uncertain. According to 47-38D-6.1, which precedes the enumeration of the above-mandated fees, "Any person required to obtain a solid waste facility permit, pursuant to these regulations, shall be subject to non-refundable fees, as described herein, which shall be used to cover the costs of future environmental remediation."

By altering the criteria by which the fees are applied from "a permit issued by the division of environmental protection" and "by the producer or importer . . . on the land application of sewage sludge" to "a solid waste facility permit . . . pursuant to these regulations", the authors seem to have inadvertently opened a significant loophole. 47-38D-4.1.3, in the portion of the regulations dealing with permit requirements, reads, "For those sewage sludge processing facilities which are located on or within a facility regulated by the division pursuant to a solid waste permit required under Chapter 20, Article 5F, a sewage sludge processing facility modification will be obtained by the applicant as a part of the existing solid waste permit and shall include a sewage sludge management plan."

Almost identically, state regulation 47-38D-4.1.2 reads, "For those publicly owned treatment works (POTW) which produce sewage sludge and are regulated by the division pursuant to an WV/NPDES permit required under Chapter 20, Article 5A, a sewage sludge processing facility modification will be obtained by the applicant as a part of the existing WV/NPDES permit and shall include a sewage sludge management plan."

As neither of these facilities' permits is not replaced as a result of 38D's new language, but simply modified (In fact, POTW's do not even hold solid waste facility permits), neither is therefore "issued pursuant to these regulations".

This seemingly arcane point might well prove the source of many headaches if POTW's and landfill operators with extant permits were to read into it an exemption from assessment fees and defend their interpretation in court.

5. SB 288, 20-5F-2b(b)(8), mandates that the resultant regulations ensure, "That information relating to the disposal of sewage sludge is available to affected communities." Although they contain requirements that tonnage and pollutant contents be reported to local solid waste authorities, neither the Part 503 nor the Series 38D regulations make any reference to the dissemination of information to the public.

We offer the following suggestion to bring the Series 38 regulations into keeping with SB 288: require that public notice be given locally and a comment period established prior to the commencement of any land application of sewage sludge or sewage sludge composting program; if the response (in the form of comments) demonstrates considerable public interest, hold a minimum of one public hearing on the project. This mechanism would allow informed public input in the presence of genuine interest, but would not unduly burden the DEP and/or applicators by requiring extensive educational or opinion-gathering efforts in areas where public interest in such projects is small or nonexistent.

6. SB 288, 20-5F-2b(b)(1), stipulates, "That entities either producing sewage sludge within the state or importing sewage sludge into the state are required to report to the division the following:

(i) The specific source of the sewage sludge

(ii) The amount of sewage sludge actually generated or imported

(iii) The content of heavy metals, pathogens, toxins or vectors present in the sewage sludge; and

(iv) Each location that the sewage sludge is stored, land applied or otherwise disposed of; the amount so stored, land applied or otherwise disposed of; and the capacity of that location to accept sewage sludge.

The state regulations repeat these data categories in 47-38-4.2.1 and 4.2.2, 5.1.1, and 5.2.2. but as information mandated only to appear in permit applications or be provided for in newly issued permits. The only reporting requirements that would affect existing sludge processing facilities appear in Series 40 503.27 and 503.28, and read as follows. "(a) When sewage sludge is placed on an active sludge unit: (1) The person who prepares the sewage sludge shall develop the following information and shall retain the information for five years.

(i) The concentration of each pollutant listed in table 1 of 503.23 in the sewage sludge when the pollutant concentrations in table 1 of 503.23 are met.

(ii) The following certification statement: `I certify, under penalty of law, that the pathogen requirements in [insert 503.32 (a), 503.32 (b), 503.32(b)(3), or 503.32(b)(4) when one of those requirements is met] and the vector attraction reduction requirements in [insert one of the vector attraction reduction requirements in 503.33(b)(1) through 503.33(b)(8) when one of those requirements is met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine the [pathogen requirements and vector attraction reduction requirements if appropriate] have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.'

(iii) A description of how the pathogen requirements in 503.32(a), 503.32(b)(3), or 503.32(b)(4) are met when one of those requirements is met.

(iv) A description of how one of the vector attraction reduction requirements in 503.33(b)(1) through 503.33(b)(8) is met.

(2)

The owner operator of the surface disposal site shall develop the following information and shall retain that information for five years.

(i) The concentration of each pollutant listed in Table 2 of 503.23 in the sewage sludge when the pollutant concentrations in Table 2 of 503.23 are met or when site-specific pollutant limits in 503.23(b) are met.

(ii) The following certification statement:

`I certify, under penalty of law, that the management practices in 503.24 and the vector attraction reduction requirement in [insert one of the requirements in 503.33(b)(9) through 503.33(b)(11) if one of those requirements is met] have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the management practices [and the vector attraction reduction requirements if appropriate] have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.'

(iii) A description of how the management practices in 503.24 are met.

(iv) A description of how the vector attraction reduction requirements in 503.33(b)(9) through 503.33(b)(11) are met if one of those requirements is met. . . .

503.28 Reporting

(a) Class I sewage sludge facilities . . . shall submit the information in 503.27(a) to the permitting authority on [insert the month and day from the date of publication of this part] of each year."

This language ignores completely the mandates of SB 288, 20-5F-2b(b)(1)(i), (ii), and (iv). Furthermore, it fails to satisfy fully the requirement of 20-5F-2b(b)(1)(iii), as the pollutants listed in Table 2 of 503.23 are only arsenic, chromium, and nickel. This list is far from an exhaustive enumeration of heavy metals, among which SB 288, 20-5F-2b(b)(6) includes both the above and cadmium, copper, lead, mercury, molybdenum, selenium, and zinc. Furthermore , this list fails utterly to comply with 20-5F-2b(b)(1)(iii)'s dictate that the quantity on pathogens, toxins, and vectors in the sludge be reported. In short, the regulations make virtually no effort at meeting the reporting requirements contained within SB 288.

The dangers of these omissions are fairly obvious. Without knowledge of the source of sewage sludge, the DEP cannot contact officials in the sludge's state of origin to ascertain the production processes and corroborate quality assessments of the sludge. Absent reporting of the total tonnage of sludge imported, the division cannot ensure that assessment and land application fees are paid commensurate to the quantity of sludge actually brought into the state. Lacking descriptions of the specific location of sludge within a facility, DEP cannot adequately enforce storage guidelines or confirm that use of illegal dedicated sites is not taking place. Finally, without data detailing the pollutant, toxin, pathogen, and vector contents of imported sewage sludge, the division simply cannot safeguard soil quality or public health.

22 July 1993

Administrative Law Division
Office of the Secretary of State
Suite 157-K
Capitol Building
Charleston WV 25305

Having attended only last week in Braxton County yet another public hearing on the Meadows landfill and its proposed takeover and expansion by New Jersey garbage haulers, I can only view with alarm the role the DEP has assumed. Watching the stoical, frozen faces of the men as they sit through these charades of public input, we must wonder to whose drummer they march. People in Braxton County and over the state have said emphatically, over and over, and in every way they know that they do not want further exploitation of our land by opportunistic--and worse--entrepreneurs of the waste business.

So why is the press continuing?

We cannot help but wonder that support for their machinations continues to flow from the regulatory agencies and men reputedly close to the Governor. I understand that your office must approve or disapprove the proposed regulations for SB 288. By rejecting these proposed regulations and opening the way for regulations more in line with the wishes of the people and the intent of the legislature, your office can influence substantially a more acceptable public policy.

I would like to think that that is what will happen.

Sincerely,
Mary S. Black
Box 18
Stouts Mills WV 26439

FILED
Jul 27 9 15 AM '93
OFFICE OF WEST VIRGINIA SECRETARY OF STATE

Mr. and Mrs. Carl G. Rucker
Rt. 2, Box 238
New Martinsville, W.Va.
26155

7-16-93

FILED
JUL 19 9 33 AM '93
OFFICE OF WEST VIRGINIA SECRETARY OF STATE

Dear Ms. Cooper:

My husband and I do not feel that the "Sewage Sludge Management Regulations," meet the intent of the Legislature. They are clearly in violation of present state law and 'Grandfather in' everything for existing and future facilities, which is very upsetting.

We live 1½ miles from the Wetzel County Landfill and have been fighting the ever increasing influx of garbage, and now sludge, that have been seeping into our beautiful state and our own backyard, so to speak, for many years and the above mentioned Regulations are just another slap in the face.

Just this week a load of sludge was being hauled to the Wetzel County Landfill, via Pennsylvania, and while in route dumped its precious cargo onto W.Va. 2, closing it for 4 hours. The stench, as reported by many, was intolerable. I, for one, would rate it right up there with the stench emanating from our State Capitol!

In closing, Pat Mascara and his bunch are all alike and care about one thing, and one thing only - how they can make more money at the expense of other peoples health and well-being. They do not care if a truckload of sewage is dumped in New Martinsville or anywhere else for that matter, as long as they don't live there and have to breath it.

Sincerely,

(Bethany A. Rucker)

See back for sludge loads

WETZEL COUNTY LANDFILL

07/13/93
PAGE 1

DAILY ACTIVITY JOURNAL REPORT FOR
07/13/93
CUSTOMER: ALL WASTE STREAM: ALL

CUSTOMER	TRUCK	TRAILER	COUNTY	WASTE	TONS
SISTERVILLE, CITY OF	RE01		5	02 RESIDENTIAL WASTE	5.42
.W.S., INC. OF WV	FE28		6	01 COMMERCIAL WASTE	7.85
OLID WASTE SERVICES INC	TR01		113	02 RESIDENTIAL WASTE	16.89
OLID WASTE SERVICES INC	R001	OT30	128	03 INDUSTRIAL WASTE	15.46
OLID WASTE SERVICES INC	R002	OT30	128	03 INDUSTRIAL WASTE	11.26
.W.S., INC. OF WV	R056	OT30	5	03 INDUSTRIAL WASTE	6.75
.W.S., INC. OF WV	R085	OT30	3	06 ASBESTOS WASTE	8.26
ENKINS CONTRACTING #1	PU01		6	02 RESIDENTIAL WASTE	0.84
ENKINS CONTRACTING #3	RE03		6	02 RESIDENTIAL WASTE	4.30
.W.S., INC. OF WV	RE59		6	02 RESIDENTIAL WASTE	13.52
.W.S., INC. OF WV	R038	OT30	128	03 INDUSTRIAL WASTE	3.42
ISCELLANEOUS - INSHED	PU01		6	02 RESIDENTIAL WASTE	1.85
UCKEYE BUILDERS	TR01		128	04 DISPOSABLE DEMOLITI	0.62
OLID WASTE SERVICES INC	R001	OT30	128	03 INDUSTRIAL WASTE	6.90
.W.S., INC. OF WV	R085	OT30	3	03 INDUSTRIAL WASTE	14.00
ISCELLANEOUS - INSHED	PU02		5	02 RESIDENTIAL WASTE	0.40
OLID WASTE SERVICES INC	TR130	TT7538	110	02 RESIDENTIAL WASTE	23.56
OLID WASTE SERVICES INC	TR130	TT7557	110	02 RESIDENTIAL WASTE	23.71
.W.S., INC. OF WV	R079	OT30	5	02 RESIDENTIAL WASTE	1.45
.W.S., INC. OF WV	FE28		5	01 COMMERCIAL WASTE	5.35
.W.S., INC. OF WV	R038	OT30	128	03 INDUSTRIAL WASTE	5.02
.W.S., INC. OF WV	RE01		5	02 RESIDENTIAL WASTE	4.82
ISCELLANEOUS - INSHED	PU03		5	02 RESIDENTIAL WASTE	0.58
OLID WASTE SERVICES INC	TR130	TT7994	110	02 RESIDENTIAL WASTE	23.24
OLID WASTE SERVICES INC	R001	OT40	128	03 INDUSTRIAL WASTE	2.34
.W.S., INC. OF WV	R085	OT30	3	03 INDUSTRIAL WASTE	20.57
OLID WASTE SERVICES INC	TR130	TT7506	110	02 RESIDENTIAL WASTE	24.18
OY SANITATION SERVICE	TR01		6	02 RESIDENTIAL WASTE	2.54
.W.S., INC. OF WV	R079	OT30	5	03 INDUSTRIAL WASTE	2.53
.W.S., INC. OF WV	RE48		3	02 RESIDENTIAL WASTE	11.55
ISCELLANEOUS - INSHED	PU04		6	02 RESIDENTIAL WASTE	2.04
CINTIRE CARTAGE	RE02		128	02 RESIDENTIAL WASTE	8.75
OLID WASTE SERVICES INC	TR130	TT7961	110	02 RESIDENTIAL WASTE	24.96
.W.S., INC. OF WV	RE48		6	02 RESIDENTIAL WASTE	1.10
CINTIRE CARTAGE	RE01		128	02 RESIDENTIAL WASTE	7.58
	TRANSACTIONS:	35			313.61

7/13/93

Customer SWS

Truck # DT108 Mixed Compost Materials

110 Lehigh ~~Valley~~ County PA

GW 81540 lbs

Tare 34900

Net ~~44~~ 46640 lbs = 23.32 tons

C.O.D. 000

signed J Rutenz

7/13

Truck DT5 Mixed Compost Materials

110 Lehigh Co.

GW 79,340

Tare 33,100

Net 46,240 = 23.12 tons

C.O.D. 0.00

R Rudender

7/13

Truck D28 Mixed Compost Materials

Gross 81,120

Tare 34,720

46,400 = 23.20

7/13

Truck # D102 GW 78040

Lehigh Co. Tare 31,400

Net 46,640 = 23.32 Mixed Compost Materials

7/13

Truck DT104. GW 75,980

Tare 29,280

Net 46,700 Mixed Compost ~~or~~ materials

23.35

7/13 DT22 GW 78160

32380

45,780 = 22.89 Tons Mixed Compost Materials

7/13/93 DT26 GW 79,180

110 Lehigh Tare 32,360 = 23.41 Mixed Compost Material

Net 46,820

WETZEL COUNTY SOLID WASTE AUTHORITY

200 North Street, Box 9, • New Martinsville, WV 26155 • Phone: (304) 455-5262

July 13, 1993

Customer SWS
Truck # DT108 — Mixed Compost Materials
110 Lehigh County, PA

Gross WEight	81540 lbs	
Tare	34900 lbs	
Net	46640 lbs	= 23.32 tons

July 13, 1993

Truck # DT5
110 Lehigh Co. — Mixed Compost Material

Gross Weight	79340 lbs	
Tare	33100 lbs	
Net	46240 lbs	= 23.12 tons

July 13, 1993

Truck # D28 — Mixed Compost Material

Gross Weight	81120 lbs	
Tare	34720 lbs	
Net	46400 lbs	= 23.20 tons

July 13, 1993

Truck # D102 — Mixed Compost Materials

Gross Weight	78040 lbs	
Tare	31400 lbs	
Net	46640 lbs	= 23.32 tons

July 13, 1993

Truck #104 — Mixed Compost Materials

Gross Weight	75980 lbs	
Tare	29280 lbs	= 23.35 tons
Net	46700 lbs	

July 13, 1993

Truck #DV22 — Mixed Compost Materials

Gross Weight	78160 lbs	
Tare	32380 lbs	
Net	45780 lbs	= 22.89 tons

July 13, 1993

Truck # DV26 — Mixed Compost Materials

Gross Weight	79180 lbs	
Tare	32360 lbs	
Net	46820 lbs	= 23.41

100% RECYCLED PAPER

WETZEL COUNTY SOLID WASTE AUTHORITY
200 North Street, Box 9, • New Martinsville, WV 26155 • Phone: (304) 455-5262

Division of Environmental Protection
Office of Water Resources
1201 Greenbrier St.
Charleston, WV 25311
Attention: Clifton Browning

July 8, 1993

Dear Mr. Browning:

This letter is to verify our conversation this afternoon regarding the Title 47, Series 38D regulations for sewage sludge. I specifically asked you why there were no requirements spelled out for pre-existing facilities that wish to process or are currently processing sewage sludge to modify their permits. You stated that it was the official position of the Division of Environmental Protection that any site currently processing sewage sludge would be exempt from receiving any permit modifications.

When I asked if this meant there would be no opportunity for public notification or input, you stated that this was the case. I respectfully submit to you that the way the current emergency rules and regulations are written they not only perpetuate the emergency they were supposed to eliminate, they also create a loop hole that will allow any type of facility that obtains a solid waste facility permit from the Division of Environmental Protection for recycling, transfer stations, composting facilities or whatever to be exempt from any permit modifcations as well.

During our conversation, I vigorously objected to the DEP's position. Your response was that the DEP's official position was firm and they invited anyone who disagreed with their position to take them to court. The purpose of this letter is to establish for the record the true position of the Division of Environmental Protection.

Furthermore, the purpose of this letter is to clarify the position of the Wetzel County Solid Waste Authority. For the record, the Wetzel County Solid Waste Authority is of the opinion that the DEP's position on exempting any facility that holds a solid waste facility permit and is now or will in the future process sewage sludge from the provisions within the existing rules and regulations regarding major permit modifications is not only a flagrant disregard for the DEP's own rules and regulations, but also constitutes a total disregard for the legislative intent of SB 288. Current rules and regulations require a major modification of a permit to be subject to public notification and a public comment period. There is also an

option for a public hearing. Our Authority endorses public participation as a healthy perpetuation of democracy. We find it curious that the DEP shuns public notification and comment. Furthermore, our Authority finds it reprehensible that the state agency that is supposed to protect the public would prefer to go to court rather than include notification to and comment from the very public they are required by law to protect.

Sincerely,

Martha Huffman
Vice-chair
Wetzel County
Solid Waste Authority

Copies: The Honorable Governor Gaston Caperton
The Honorable Senator Don Macnaughtan
The Honorable Senator Larry Wiedebusch
The Honorable Senator John Chernenko
The Honorable Senator David Grubb
The Honorable Delegate David Pethtel
Brooke County Solid Waste Authority
Larry Harless, Esquire

City Of New Martinsville
Police Department

Carl E. Kocher
Chief of Police

TO SERVE AND PROTECT

193 Main Street
New Martinsville, W.Va. 26155
Telephone: (304) 455-9100

Mayor Richard Snyder
Members of Council:

08-02-93

Re: Sludge Spill Rt. 2 & 07-13-93.

The New Martinsville Police Investigated a Sludge Spill on Route 2 at 5-Way [illegible] Street Extension.

The driver and load were not at the location when Police arrived.

Officer Dave Byers proceeded to the Wetzel County landfill where he located the truck and driver.

Citation was issued to Randy Rickard [illegible] of the vehicle was cited for [illegible] Road. [illegible] check for citation on [illegible].

Sample of sludge was taken and [illegible] Jamie Fenske, DEP
State of WV. (See Attached findings)

Spoke to Jamie [illegible] DEP and he advised analysis of material [illegible] a violation for hauling sludges for [illegible] the load was to be used for composting and at this particular time does not constitute a violation of [illegible].

Carl E. Kocher
Carl E. Kocher
Chief of Police
NMPD

538-0900

FILED
AUG 5 10 21 AM '93
OFFICE OF WEST VIRGINIA SECRETARY OF STATE

STRAIGHT AUG 05 '93 09:38 CITY OF NEW MART. (304)-455-3442 BILL OF LADING—SHORT FORM—UNIFORM—NOT NEGOTIABLE

BY TRUCK ☐ FREIGHT ☐

RECEIVED, subject to the classifications and lawfully filed tariffs in effect on the date of the issue of this Bill of Lading, the property described below in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated below which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of, said property over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the terms and conditions of the Uniform Domestic Straight Bill of Lading set forth (1) in Uniform Freight Classification in effect on the date hereof, if this is a rail or a rail-water shipment, or (2) in the applicable motor carrier classification or tariff if this is a motor carrier shipment.

Shipper hereby certifies that he is familiar with all the terms and conditions of the said bill of lading, set forth in the classification or tariff which governs the transportation of this shipment, and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

From **LEHIGH VALLEY RECYCLING**
COPLAY, PA 18037

At (Mail or street address of consignee—for purpose of notification only.)

DATE 7/12 19 93

SHIPPER'S NO. 51626

CARRIER ↓

CARRIER'S NO.

BY SAR TRUCKING, INC. STI000

3 CONSIGNEE AND DESTINATION
WETZEL COUNTY LANDFILL
RT 1, BOX 156-A
NEW MARTINSVILLE WV

ROUTE

DELIVERING CARRIER

CAR OR VEHICLE INITIALS & NO. VARIOUS TR61 TT610

NO. PACKAGES	HAZARDOUS MATERIALS	DESCRIPTION OF ARTICLES, SPECIAL MARKS AND EXCEPTIONS	*WEIGHT (SUBJECT TO CORR.)	CLASS OR RATE	✓
		COMPOST PRODUCT - OUTBND GROSS	79760		
		TARE	27620		
		DALLAS\NORTH\O.CTY NET	52080		
			26.04		

WETZEL COUNTY LANDFILL
Rt. 1 Box 156A
New Martinsville, WV 26155
(304) 455-3800

Kay S.

Subject to Section 7 of conditions of applicable bill of lading, if the shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement.

The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

Per _____ (Signature of Consignor)

If charges are to be prepaid, write or stamp here, "To be Prepaid."

Received $ _____ to apply in prepayment of the charges on the property described hereon.

Agent or Cashier

Per _____

(The signature here acknowledges only the amounts prepaid.)

Charges Advanced:

$ _____

SHIPPERS CERTIFICATION: This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. SIGNATURE _____ TITLE _____

* If the shipment moves between two ports by a carrier by water, the law requires that the bill of lading shall state whether it is "carrier's or shipper's weight."
† Shipper's imprint in lieu of stamp; not a part of Bill of Lading approved by the Interstate Commerce Commission.
Note — Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property.
The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding _____

C.O.D. SHIPMENT
C.O.D. Amt _____
Collection Fee _____
Total Charges _____

THIS SHIPMENT IS CORRECTLY DESCRIBED.

CORRECT WEIGHT IS _____ LBS.

† The fibre boxes used for this shipment conform to the specifications set forth in the box makers certificate thereon, and all other requirements of the Consolidated Freight Classification.

Per _____ Shipper

LEHIGH VALLEY RECYCLING
Lehigh & Walnut Street, R.D. #1, Coplay, PA 18037

Shipper, Per _____ Agent, Per _____

Permanent post office address of shipper

OPF-040

1

Spoke to Jamie Jenske - DEP

7-30-93- Results of analysis showed the material was only 13% solids a violation for hauling sludges for dumping; unfortunately the load was used for composting and at this particular time does not constitute a violation.

New Martinsville Police Department
Report of Investigation
747 2nd Street
New Martinsville, W. Va. 26155

1. CASE NO. M93-07-18

2. CODE SECTION	3. CRIME	4. CLASSIFICATION	5. DATE REPORTED
	Unsecure Load	Misd.	07-13-93

6. DATE AND TIME OFFENSE OCCURRED	7. LOCATION OF OCCURRENCE	8. TIME REPORTED
07-13-93 Before 7:00AM	WV ST RT 2, Parkway & Leap Street	0701hrs

9. VICTIM'S NAME LAST, FIRST, MIDDLE	10. RESIDENCE ADDRESS	11. RES. PHONE

12. RACE - SEX	13. AGE	14. D.O.B.	15. NAME OF BUSINESS - (IF OCCURRED AT BUSINESS PLACE)	16. BUS. PHONE

17. REPORTING PARTY (OTHER THAN VICTIM)	18. AGE	19. RACE - SEX	20. RESIDENCE

21. DESCRIBE PREMISES AND AREA

22. DESCRIBE HOW OFFENSE WAS COMMITTED

SUspect #1 was driving an 86 Ford Truck south on RT 2 that was pulling a trailer full of sludge south on RT 2. When the suspect stopped for the traffic signal the load shifted spilling sludge onto RT 2 . The suspect then drove to the Wetzel County Landfill and told the pepple there what had happened. They then sent a crew to clean up the spill.

23. MOTIVE

24. DESCRIBE WEAPON - INSTRUMENT - EQUIPMENT - TRICK DEVICE - OR FORCE USED

25. TYPE OF PROPERTY TAKEN -
N/A

26. ESTIMATED LOSS VALUE

27. VICTIM'S ACTIVITY - PRIOR TO/AND/OR DURING OFFENSE

28. SUSPECT NO. 1. LAST, FIRST, MIDDLE	29. RACE - SEX	30. AGE	31. HT	32. WT.	33. HAIR	34. EYES	35. S.S. NO. OR D.O.B.	36. ARRESTED
Sickles, Randy Wayne	W M	21	5-07	175	BRN	BRN	211-54-3215	YES ☒ NO ☐
37. SUSPECT NO. 2. LAST, FIRST MIDDLE	**38. RACE - SEX**	**39. AGE**	**40. HT**	**41. WT.**	**42. HAIR**	**43. EYES**	**44. S.S. NO. OR D.O.B.**	**45. ARRESTED**
								YES ☐ NO ☐

46. SUSPECT NO 1 ADDRESS	47. SUSPECT NO. 2 ADDRESS
RD 4 Box 91 Ebensburg, PA 15931	

48. REPORTING OFFICERS	49. TYPED BY	50. DATE AND TIME	51. REVIEWED BY	52. DATE
D. Byers	M. Durant	07-13-93 1115hrs	C. E. Locke	7-13-93

53. C. I. REPORT BY	56. COMMENTS BY INVESTIGATING OFFICERS
54. DATE	Phone # (814) 472-5278
55. CLEARED BY ☒ ARREST ☐ OTHER	Class A CDL #19-431-349
	Transport Insurance Co. Policy #010711-92

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
903 Methodist Building
11th & Chapline Streets
Wheeling, WV 26003

URGENT FAX

TO: CHIEF KOCHER

TELEPHONE: 455-9100

FROM: JAMIE FENSKE, WVDEP

TELEPHONE: 238-1075

RETURN FAX: (304) 234-0259

CONFIRMATION: (304) 234-0250

COMMENTS: 7-13-93 SLUDGE SPILL
I DO HAVE SOME ADDITIONAL INFO IN THE FORM OF FIELD NOTES AND OBSERVATIONS. CALL IF YOU HAVE QUESTIONS OR CONCERNS.

DATE: 7-29-93

# of PAGES (including cover): 2

Ms. July Trooper.
Since I didn't see this article until after I sent in my objections to the DEP regulations, I am sending this separately, to be included in your files
Hdeheiss

7-13-93

fight to
tact, re-
compro-

itatives
use and
ct West
rrection

years, according to studies by DRI/McGraw Hill and the National Association of Manufacturers. Most of them will be in the higher-paying manufacturing and professional services sectors. (It is ironic that the this job-threatening Btu tax proposal came while the administration was pushing for enactment of its job-stimulus package.)

the Senate Finance Committee acted wisely in wiping this tax from the president's deficit-reduction package. We must maintain pressure on our legislators in Washington to prevent this unfair tax from being considered again.

Rotruck, of Keyser, Mineral County, is president of the Association of Natural Resources Workers.

H L Heiss
Rt 1 Box 148
New Mrtnsvl WV 26155

Gazette 7-9-93

Sewage sludge policy may make us nation's septic tank

By Jedediah Purdy

Three months ago, the Legislature acted to protect the state from massive quantities of New York sewage sludge. Now a state agency has drafted regulations that threaten to undermine the intent of the Legislature and make West Virginia the nation's septic tank. These need only the approval of the secretary of state to become the law of the land.

Many of the Mountain State's recent environmental disputes have centered on the import of out-of-state waste, most of it from the East Coast. The latest of these exploded last winter, when state media got wind of two landfill operations in Brooke and Wetzel counties. At those sites, Pennsylvania businessman Pasquale Mascaro was accepting 108,000 tons per year of New York sewage sludge. Due to a loophole in West Virginia solid waste law, Mascaro was able to classify his sludge disposal as recycling, and so was exempted from various fees (amounting to over $1 million per year in lost state revenue), control by local government, and limits on the quantity of waste he could accept annually.

Angered, the Legislature acted decisively during the 1993 session to bring sewage sludge under state control. Both houses passed a strong bill, S.B. 288, creating a statewide sludge management program and establishing the framework for its regulatory structure. The coalition of local and state officials, environmentalists and concerned citizens that had supported the bill seemed to have won a major victory.

However, the battle wasn't, and isn't, over. A successful bill is only a blueprint for state policy. The details of regulation and enforcement, particularly for complex environmental issues, are provided by regulations drafted by state agencies in accordance with the language of newly established code. When the agencies follow the Legislature's blueprint faithfully, a coherent structure of policy results. When the blueprint is ignored, strange and horrible things can happen.

In this case, the Division of Environmental Protection, driven by a swift-approaching deadline, went its own way and drafted a set of regulations so different from S.B. 288 that the two cannot be said to reflect the same policy. The result is a regulatory Babel so fraught with omissions and contradictions that, if not thoroughly rewritten, it will hamstring any effort to control sludge-related activities in the state.

The inadequacies of the regulations lie chiefly in two elements. The first is their dependence on federal Series 503 sludge regulations, among the last documents produced by the Reagan-Bush Environmental Protection Agency, which fully reflect the lack of concern for the environment and public health that characterized those administrations. The DEP incorporates the great bulk of Series 503 into its own package, despite a Grand Canyon-sized rift of disparities between those regulations and the language of S.B. 288.

> The proposed regulations are profoundly, fundamentally flawed.

The second is the excessive "grandfathering" that pervades the regulations, which exempts current operations, e.g., the Brooke and Wetzel sites that originally ignited the controversy, from most regulatory requirements.

S.B. 288 further requires that the amount of heavy metals dumped on West Virginia soils as sludge components not be enough to drive the total metals levels of the soil above safe limits. The bill accomplishes this by stipulating that all contamination limits take into account the amounts of metals already present in the soil. These regulations allow for the possibility of the future calculation of such figures, but, despite the availability of similarly derived figures from several Canadian provinces, effectively ignore that requirement by taking their contamination ceilings directly from the Series 503 regulations. In contradiction to the language of S.B. 288, the series 503 figures explicitly exclude background soil contaminants from their calculations. The result is that our maximum legal levels of metals in sludge are consistently three to four times as high as those of New York, the source of most of our imported sludge.

S.B. 288 requires "that information relating to the disposal of sewage sludge be made available to affected communities." These regulations make no provision whatsoever for public notice or comment prior to most sludge disposal activity, including land application and the opening of a sludge processing operation within an existing solid waste facility. Simply put, this provision of S.B. 288 goes virtually unacknowledged.

Furthermore, there is great likelihood that the DEP will not have funds sufficient to operate even this loophole-ridden program. The regulations as originally conceived paid for enforcement through a levy on all producers and importers of sewage sludge. After a rash of complaints from operators who felt unduly burdened by this fee structure, the division altered the levy to make it applicable to "wet" rather than "dry" tons of sludge. As this material loses roughly 80 percent of its weight during the curing process, the DEP has thereby ensured that its program will operate at no better than one-fifth of its intended funding level.

In response to the same complaints, the division made the levy applicable only to sludge "intended for land application." Needless to say, intent is a subjective and slippery matter, especially in the hands of operators whose taxes vary according to where they claim their product is bound. It would not be surprising to find in a few years that much sludge not "intended for land application" had somehow wound up land-applied after completion of the fee process.

The pattern here is clear. The proposed regulations comply with neither state code nor the standards of intelligent waste management and exacerbate the crisis they ostensibly aim to solve. In a final insult to legislative intent, they do not adequately fund the program they establish. They are profoundly, fundamentally flawed.

The only way to implement the intent of the code and safeguard the health of West Virginians is to do away entirely with the proposed regulations and start anew. Although this proposal will be subject to review by a legislative committee next year, by then the grandfathering process will be complete and other significant damage may have been done. Therefore, the rewriting should begin immediately. I join citizens statewide in urging that the DEP return to the proverbial drawing board, this time paying close attention to the intent of the Legislature and keeping in mind its responsibility to the people of the West Virginia.

Purdy is a staff member of the West Virginia Citizen Action Group based in Charleston. This is an abridgement of a

Charleston Gazette

Pollutant levels in sewage sludge

§47-38D-3.2.2 provides that "No person or entity shall be allowed to apply sewage sludge to land in a manner that will result in exceeding the maximum soil concentration for all pollutants, including, but not limited to, arsenic, cadmium, chromium, copper, lead, mercury, molybdenum, nickel, selenium and zinc, to be determined based, at a minimum, upon cumulative loading rates of 40 CFR, 503.13(b)(2) and 503.12(e)(2) and soil testing requirements developed under these regulations."

The provision presented in §47-38D-3.2.2 is completely contrary to the intent and language of S.B. 288. West Virginia Code §20-5F-2b(b)(6) requires "That no person or entity be allowed to apply sewage sludge to land in a manner that will result in exceeding the maximum soil concentration for all pollutants . . ." I have read the 503 rule, and the loading rates in it are not tied to existing soil concentrations in any way. I have enclosed a table showing allowable concentrations for compost that Ontario and British Columbia have developed. When the Ontario concentrations, which are based on the average metals concentrations in rural soils, are examined, it becomes clear that the 503 numbers are not protective of existing soil conditions, nor do they implement the intent or language of §20-5F-2b(b)(6).

The Ontario numbers or the British Columbia numbers would satisfy the requirements of §20-5F-2b(b)(6) much more so than would the 503 numbers, and I recommend that they be used.

At the public hearing, Senator McNaughton, a Ph.D. chemist who sits on the board of a POTW, submitted written comments that also addressed this issue. He also offered to assist the DEP in developing this portion of the rule. The fact that the DEP did not take advantage of this resource, or consider the numbers from Ontario and British Columbia, would seem to indicate a lack of resolve to implement the intent of the legislation.

Permits required

1. A major concern in Section 4 of the 38D rule is the question of how to handle an existing solid waste facility that wishes to expand its operations to include sludge processing. The version of the rule that the public comment period and hearing were on had the following language:

"4.1.3. For those sewage sludge processing facilities which are located on or within a facility regulated by the division pursuant to a solid waste permit required under Chapter 20, Article 5F, a sewage sludge processing

facility modification will be obtained as a part of the existing solid waste permit and shall include a sewage sludge management plan."

Following is the comment on this issue that I submitted at the public hearing on June 23:

"The language in §47-38D-4.1.3 is almost word for word the same language that was in the bill drafted by the DEP when it was first introduced during the 1993 regular session. That language was intentionally dropped from both the House bill and the Senate bill because it was viewed as a vehicle to grandfather in commercial sludge processing operations that had not undergone the pre-siting and siting requirements of the West Virginia Code. The House and the Senate both passed resolutions in reaction to the massive amounts of sludge that were being processed by commercial operations that had not undergone the siting and public approval requirements of the West Virginia Code. The fact that this language has been put into this rule demonstrates a blatant disregard for the Legislature of the State of West Virginia.

The way that 4.1.3 is worded, a solid waste facility handling relatively "benign" portions of the waste stream, such as a materials recovery facility or a yard waste composting facility, could handle sewage sludge just by filing a management plan. There is not even a provision that the plan needs to be approved by anyone! It is clear that in such instances, a certificate of site approval should be obtained, a Certificate of Need should be obtained, the site should be in a zone authorized by the local authority's siting plan for the operation, the public should be notified and have the opportunity for comment and a hearing, and all other siting and permitting requirements provided for in the Code be should be met. If existing facilities are to process sewage sludge as a part of the existing solid waste permit, then it should be as a major modification which shall require submission of a new permit application subject to all the siting and permitting requirements of the West Virginia Code."

In response to the comments the the DEP received on this issue, the agency dropped the language in what was then 4.1.3. However, the DEP did not replace that language with anything. It would appear that the rule went from unacceptable language on the topic of existing facilities, to no language on the topic! How is the DEP going to handle this issue? How can the public submit informed comment on something that is not addressed in the rule? How are solid waste facilities that wish to process sewage sludge to proceed? If these types of procedures are not spelled out in the regulation, then when, where and how are they to be spelled out? All we are left with is the

language in 4.1.1. that states "No person may construct or operate a sewage sludge processing facility (including mixed waste composting facilities which utilize sewage sludge) or a commercial solid waste facility which processes or handles sewage sludge or materials derived from sewage sludge without first obtaining a solid waste facility permit; provided, That land upon which sewage sludge is applied is not a solid waste facility." This language is vague to the point of meaningless. One could assume that the permit modification section of the Solid Waste Management Regulations would apply, but sludge processing facilities were only just defined and classified as solid waste facilities this past session, and the Solid Waste Management Regulations do not address them. Once again, I submit my comment as follows: " A certificate of site approval should be obtained, a Certificate of Need should be obtained, the site should be in a zone authorized by the local authority's siting plan for the operation, the public should be notified and have the opportunity for comment and a hearing, and all other siting and permitting requirements provided for in the Code be should be met. If existing facilities are to process sewage sludge as a part of the existing solid waste permit, then it should be as a major modification which shall require submission of a new permit application subject to all the siting and permitting requirements of the West Virginia Code."

Section 4.1.3. of the proposed rule states that "For those publicly owned treatment works (POTW) which produce sewage sludge and are regulated by the division pursuant to an WV/NPDES permit required under Chapter 20, Article 5A, a sewage sludge processing facility modification will be obtained by the applicant as a part of the existing WV/NPDES permit and shall include a sewage sludge management plan."

2. The West Virginia Code, §20-5F-2b(c) states that "For those publicly owned treatment works (POTW) which produce sewage sludge and are regulated by the division pursuant to an WV/NPDES permit required under article five-a of this chapter, a sewage sludge processing permit shall be a part of the existing water control permit and shall include a sewage sludge management plan approved by the chief."

The provision that the sewage sludge management plan be approved by the chief should be in the rule.

Bonding

Senate Bill 288, in Section 2b(b)(5) provides "That the director may require a surety bond, deposit or similar instrument in an amount sufficient

to cover the costs of future environmental remediation from producers and importers of sewage sludge; ".

The DEP received numerous comments decrying the lack of any bonding in the rule. Following is the comment that I submitted on this subject:

"Bonding for the processing facilities is covered in Section 3.13 of the Title 47 Series 38 rule. However, bonding for land application projects is not addressed at all in this rule except perhaps through the mechanism of the environmental remediation fee mentioned in 6.3.1. This mechanism appears to have the effect of making the DEP responsible for the environmental remediation. That is unacceptable; the idea is to make the party responsible for the pollution responsible for the remediation, not the taxpayers.

The fact that §20-5F-2b(b)(5) uses the words "may require a surety bond" indicates that there is to be some flexibility in the requirement of the bond. It is understood that such bonding is difficult to get, and it was not the intent of the legislature to require it of operations that are not likely to result in environmental degradation. With pollutant concentrations that truly implement the intent of §20-5F-2b(b)(6), such as the ones I have submitted herein, and with the agronomic rate requirement in 2b(b)(7), I would think that most land applications of the type and size currently being performed by POTWs would not be required to post a bond. The type of operation requiring bonding would be one that is more likely to threaten ground or surface water, soil health and the public health and safety. Such an operation would have the following characteristics:

- *large applications of sludges,*
- *higher contaminant levels, such as British Columbia Concentration Codes 3 and 4, or Ontario's controlled-compost class for restricted use,*
- *involve applications above the agronomic rate, such as the rates up to 25 tons per acre per year that are allowed in the reclamation of surface mine land,*
- *involve sewage sludges that were processed with mixed solid waste,*
- *involve slopes between 6 and 15 percent*

The bonding language from Title 47 Series 38, section 3.13 could be used with some minimal changes:

Title 47, Series 38, section 3.13.2.a could read 'All bonds must be submitted under the requirements of these regulations on a form prepared and furnished by the director, must be made payable to the State of West Virginia, and must provide for continuous liability from the initiation of operations at the ~~facility~~ land application site for the full term of the ~~permit~~ operation and for up to ~~ten (10)~~ five (5) years after final ~~closure of the permit~~ operations have been concluded at the land application site. Any further time period necessary to achieve compliance with the requirements in the closure plan of the permit shall be considered an additional liability period.'

Title 47, Series 38, section 3.13.13. could be reworded to reflect the amounts required for land application sites. I suggest a minimum of $50,000 and an amount of from one thousand to four thousand dollars ($1,000 to $4,000) per acre at the discretion of the director."

The DEP's response to the bonding issue comments in it's responsiveness summary is without merit:

1. The DEP says that it ". . . determined . . . that such a requirement [bonding] would be unmanageable if the intent was to cover each individual land application site." The use of the word "may" in Section 2b(b)(5) clearly indicates that the legislature did not intend to give the DEP a hard and fast order to cover each individual land application site; the DEP was given the latitude to implement a manageable bonding program. However, the approach that the agency used, the remediation fee, imposes a fee on all sewage sludge intended for land application. Each individual land application site is required to pay regardless of the potential for environmental damage that it presents, thus reducing the incentive for producers and importers to design an environmentally sound program.

2. The agency goes on to say in the responsiveness summary that "Very few bonding requirements provide sufficient funds to effectively remediate detrimental impacts." The provision in S. B. 288 does not limit the DEP's ability to set up a bond program that will provide sufficient funds; on the contrary, it authorizes the agency to ". . . require a surety bond, deposit or similar instrument in an amount sufficient to cover the costs of future environmental remediation . . .". In any case, the approach that the agency took, the remediation fee, appears to make the DEP responsible for the environmental remediation, which is not acceptable.

3. The agency, in it's responsiveness summary, tries to justify it's use of the remediation fee by implying that the ". . . or similar instrument" clause

could be used to mean a remediation fee scheme such as the one in the Groundwater Protection Act (§20-5M-9). The "Groundwater Remediation Fund" created in the Groundwater Protection Act is not the outgrowth of some vague "or similar instrument" wording, but specifically named and created in section nine of the act which is five pages long. If the legislature had intended to create a similar remediation fund in S. B. 288, it would certainly have done so with as much specificity as it did in the Groundwater Protection Act.

The actual intent of the "or similar instrument" clause is to refer to the many other forms of financial assurance that are acceptable alternatives to surety bonds without having to name them all. When section 3.13.3 Form of Bond or Other Financial Assurance of the Title 47, Series 38 Solid Waste Management Regulations are read, it can be seen that the "similar instruments" are as follows:

"3.13.3.a. The director will accept the following types of bonds:

3.13.3.a.A. A surety bond;

3.13.3.a.B. A collateral Bond (including cash and securities);

3.13.3.a.C. An escrow account;

3.13.3.a.D. Letters of credit;

3.13.3.a.E. Performance bonding fund participation (as established by the director); and

3.13.3.a.F. A combination of these methods.

3.13.3.b. If collateral bonding is selected by the permittee only the following forms of collateral bonding will be allowed:

3.13.3.b.A. Cash deposit;

3.13.3.b.B. Collateral securities; and

3.13.3.b.C. Certificates:

3.13.3.b.C.(a) Bonds of the United States or its possessions;

3.13.3.b.C.(b) Bonds of the Federal Land Bank;

3.13.3.b.C.(c) Bonds of the Homeowners Loan Corporation;

3.13.3.b.C.(d) Full faith and General Obligation bonds of the State of West Virginia or other states and of any West Virginia county, district, or municipality, or of other states; and

3.13.3.b.C.(e) Certificates of deposit in a bank in this State in favor of the Department."

It is readily apparent that there is nothing in this list of similar instruments that would imply the creation of a remediation fund or the imposition of liability for environmental remediation upon the DEP.

Land application fee

1. Section 6.3.2 of the 38D rule has been amended to read:

"6.3.2. Producers and importers of sewage sludge or material derived from sewage sludge intended for land application shall be assessed a sewage sludge management program fee of $2.50 per dry ton."

My objections to this language are:

* West Virginia Code §20-5F-2b(b)(12) provides that the fee be imposed on ". . . the land application of sewage sludge. . .", not the intention of land application.

* West Virginia Code §20-5F-2b(b)(12) provides that ". . .The fee schedule shall vary according to the volume of materials handled and the contaminant level of the sewage sludge. . .". This proviso was crafted not only to encourage the production of a cleaner material, but to accommodate the smaller POTWs. This provision has been completely ignored in section 6.3.2 of the 38D rule. Not only is this in contradiction with the intent of the Code, it has been the source of much hue and cry from the POTWs who have prevailed in their request that the fee be imposed on "dry" tonnage. This has resulted in an 80% reduction in funding for the DEP, which says in the responsiveness summary that it ". . . will reevaluate its resource requirements in light of this reduction."

If the agency had implemented the intent of the legislature and established a fee structure that varied according to the volume and contaminant levels of the sewage sludge, it could have:

Levied the fee on the actual tonnage that crossed the scales, be it wet or dry,

Imposed a lesser fee on the POTWs (especially the smaller ones),

Imposed a stiffer fee on the large applications proposed by commercial facilities that are more likely to threaten the public health and safety,

Maintained an adequate funding level, and

Provided an incentive to produce a cleaner material.

By ignoring the legislative intent, the DEP has:

Committed itself to relying on guestimates and formulae to arrive at a "dry" ton figure instead of just weighing the material. (Twenty percent solids is considered "dry", yet the sludges generated by different procedures and facilities ranges from a liquid slurry to 50% solids or more.),

Slashed the funding of the program by 80%, which will have a serious impact on the effectiveness of the program,

Punished smaller publicly owned facilities by making them pay as much per ton as large commercial facilities, and

Removed the incentive to produce a cleaner material.

Once again, we see the DEP flying in the face of logic and the Legislature, only to weaken the program and its effectiveness as a regulatory agency.

2. In the responsiveness summary, the DEP states that "Section 6.3.3 was amended to remove tipping fees from sewage sludge processing facilities and to remove the provision for deposit of fees collected in only the Solid Waste Enforcement Fund."

The regulation of tipping fees at solid waste facilities is delegated to the PSC. In my comments to the DEP, I asked if the PSC had been consulted in

the promulgation of the rule. My question went unanswered, and I feel it is a valid one that should be answered.

Although the words "... and deposited in the Solid Waste Enforcement Fund ..." were stricken in section 6.3.3., the reference to Chapter 20, Article 5F, Section 5a.(h)(1) is to the Solid Waste Enforcement Fund only, so the contention in the responsiveness summary is not correct.

The language in West Virginia Code §20-5F-2b(e) states that "All sewage sludge placed in, or upon, or used by a solid waste facility .... be subject to the same tipping and other fees levied by this chapter..." The chapter referred to is Chapter Twenty and it levies more fees than the one referred to as Article 5F, Section 5a.(h)(1), as follows:

> Article 5F, Section 5a levies a solid waste assessment fee that is dedicated not only to the Solid Waste Enforcement Fund, but also to the Solid Waste Management Board Reserve Fund and the Solid Waste Reclamation and Environmental Response Fund.
>
> Article 5N, Section 4 levies a solid waste assessment fee that is dedicated to the county commission in which the landfill is located and the closure cost assistance fund.
>
> Article 11, Section 5a. levies a recycling assessment fee that is dedicated to the "Recycling Assistance Fund" and allocated to a grant program administered by the DNR, personal services and benefit expenses of conservation officers, the governor's office of community and industrial development, the solid waste reclamation and environmental response fund, and the hazardous waste emergency response fund.
>
> Article 11, Section 5b levies a solid and hazardous waste supplemental assessment fee that is dedicated to the hazardous waste emergency response fund.

The section should be amended to accurately reflect the code.

In conclusion, I would like to point out that the situation that caused the legislature to pass a bill and declare in that bill that an emergency existed, had the following components:

The DEP was allowing sewage sludge to be processed and placed in two commercial landfills without being counted as tonnage, and therefore the state was not getting any solid waste assessment fees.

The amount of sewage sludge that was being processed and placed in these facilities was considerable, over 9,000 tons per month, yet because the DEP allowed this sludge to escape being counted as tonnage, no permit modifications were initiated and the permitting scheme that the legislature and the public had worked on over the last several years had been bypassed. The requirements for Certificate of Need, pre-siting notice, certificate of site approval, the provisions of the local solid waste authority siting plans, public notice, public comment, public hearing, county commission approval, public referendum, were all by-passed.

The DEP justified these actions by claiming that the facilities were not disposing of sewage sludge but "recycling" it, and by referring to various recycling loopholes and exemptions in the code, claimed that the above mentioned activities were not subject to solid waste regulations.

The legislature reacted by passing Senate Bill 288, which specifically and intentionally closed the "recycling loopholes" pertaining to sewage sludge and composting, thereby requiring sewage sludge to be counted as solid waste and subject to solid waste assessment fees (except when land applied) Sewage sludge processing facilities were defined as solid waste facilities and thereby subject to the permitting and siting process that other solid waste facilities are subject to. The legislature declared that an emergency existed and directed the DEP to promulgate an emergency rule.

The DEP, in promulgating the initial rule to address this emergency, has only provided that sewage sludge be subject to a portion of one of four solid waste assessment fees, and has taken no steps in addressing how an existing solid waste facility that wishes to process sewage sludge is subject to the permitting and siting process. In fact, today in a phone conversation with the DEP office, Clifton Browning, after consulting with Dick Cooke, told me that the DEP was <u>not</u> going to re-open the permits of the two facilities whose operations brought about this emergency. It is clear that these regulations do not satisfy the intent of the legislature to deal with the emergency. On the contrary, if this rule is filed and approved as it is, the emergency will be institutionalized.

This concludes my comments on the failure of this rule to implement the intent of the Code of the State of West Virginia. I applaud your long standing concern for the people of West Virginia and appreciate your efforts in this matter. Thank you.

Sincerely,
Tom Degen

June 22, 1993
Tom Degen
HC 75 Box 324
Chloe, WV 25235

To: Bill Rheinlander
Office of Waste Management, DEP
1356 Hansford Street
Charleston, WV 25301

FILED
Jun 28 10 09 AM
OFFICE OF WEST VIRGINIA SECRETARY OF STATE

Enclosed are my comments on the Title 47 Series 38D Sewage Sludge Management Regulations:

Definitions

The definitions 2.8, 2.9, and 2.10 are confusing in that one cannot tell how they differ from the definitions of the corresponding solid waste facilities. Since sewage sludge is a solid waste, and since these definitions also include "mixed solid waste" within them, it is difficult, for example, to tell how 2.8 is different from 2.7.

Sewage sludge is generated at a much lower rate per person than is solid waste. There are approximately 250,000 wet tons per year, or 20,833 tons per month, of sewage sludge generated in West Virginia. 250,000 tons/yr divided by 1,800,000 people equals .14 tons per person per year. This equals 280 lbs/person/yr or 23 lbs/person/month or .78 lbs/person/day. When this figure is compared to the 4.82 lbs/person/day of solid waste that is generated, it becomes clear that to use the same sizing for sewage sludge facilities as for solid waste facilities results in an unrealistic oversizing of classes of sewage sludge facilities (by roughly six times). When enough capacity is added to that figure to maintain a 4:1 sludge to bulking agent ratio (by weight), the result is still an oversizing of about 5 times.

A sludge facility serving a population of 40,000 would be handling about 460 tons per month of sludge. If we round this up to 500 tons per month and figure in enough bulking agent to maintain a 4:1 sludge to bulking agent ratio by weight, a figure of 625 tons per month is arrived at for what might be called a Class C sludge processing facility. Similarly, the Class B facility would be more realistically capped at 2,000 tons per month, and the Class A facility would be more realistically capped at 6,000 tons per month.

I would recommend creating categories of sludge processing facilities that more accurately reflect the per person generation rate of sludge, and do not allow the inclusion of mixed solid waste in the operation. Different designations than the Class A, B, C, such as Class I, II and III would avoid confusion.

Those facilities handling mixed solid waste and sewage sludge should be given a separate status. This is probably already provided for in the landfill and mixed waste processing facility designations.

Storage

Storage is not defined or addressed adequately in these or the 503 regulations. There should be a time beyond which storage of sludge should be considered disposal. There should also be requirements for the storage of sewage sludge. This would vary according to a site's ability to handle the sewage sludge. It would seem reasonable that sewage sludge could not be stored directly on the ground at a land application site for as long as it could be stored at a processing facility equipped with a pad, or liner, or tanks, or a roofed area.

There should also be more strict storage requirements for unstabilized sludge. I offer the following: "Compost piles or windrows shall be constructed within one day following receipt of compostable material at the facility." Similar requirements could be promulgated for processes other than composting.

One year is long enough to be an absolute maximum storage time, and only for processed/stabilized sludge that is stored in such a manner that it is protected from rain and surface water, and that leachate from the sludge can be collected.

Septage should not be stored except within a tank, and then for only a short time such as overnight to two days.

Sludge should not be stored at a land application site beyond the end of the day that it arrives, unless some type of storage provisions are made such as a pad, liner, diversion ditches, and/or roof, or in a tank. In no event shall sludge be stored at an application site over one week, and in no event shall more sludge be stored on a site than is intended/allowed to be land applied.

Exemptions/variances

There are exemptions/variations throughout the rule, and they are too wide open. There should be some mechanism for the DEP to approve/deny/revoke them, and there should be provisions that the DEP give the rationale for granting exemptions and provisions for public notification and comment period when exemptions are applied for. In determining whether to grant a variance/exemption, it should be required that the DEP determine that no substantial health hazard is likely to occur. Also a provision that any variance granted will automatically expire after a predetermined time span, such as on December 31 of the calendar year in which it is granted. Following are some of my major specific concerns relative to exemptions/variances:

- 503.10(b)(1) says "The general requirements in §503.12 and the management practices in §503.14 do not apply when bulk sewage sludge is applied to the land if the bulk sewage sludge meets the pollutant concentrations in §503.13(b)(3), the Class A pathogen requirements in §503.32(a), and one of the vector attraction reduction requirements in §503.33(b)(1) through (b)(8)."

The basic idea is that "clean" sludge does not have to jump through the same hoops as "dirty" sludge. I find 503.10(b)(1) objectionable on several counts:

1. the pollutant concentrations in §503.13(b)(3) do not constitute "clean" sludge. West Virginia Code §20-5F-2(b)(6) requires "That no person or entity be allowed to apply sewage sludge to land in a manner that will result in exceeding the maximum soil concentration for all pollutants . . ." The 503 loading rates are not tied to existing soil concentrations in any way, which is contrary to the intent of S. B. 288. I have enclosed a table showing allowable concentrations for compost that Ontario and British Columbia have developed. When the Ontario concentrations, which are based on the average metals concentrations in rural soils, are examined, it becomes clear that the 503 numbers are not protective of existing soil conditions. Therefore, to base any exemptions on the pollutant concentrations in the 503 rule is misguided.

2. Regardless of which concentration numbers are used, the general requirements and sound management practices should be observed in all cases. Many of the informational requirements relative to reporting, labeling and notification are in these requirements. It is not possible to regulate a sludge program if applicators are not required to notify the permitting authority of their activities. While the management practices in 503.14 are

minimal, the idea that such basic practices as not applying sludge to floodplains, wetlands, on frozen ground, within certain distances of water, that practices such as requiring a label on sludge sold for land application, can be completely ignored without even receiving consideration from the permitting authority or the public, is unacceptable.

The exemption that 503.10(b)(1) provides is detrimental to the intent of S. B. 288 and the language should be stricken from any regulation that West Virginia promulgates concerning sewage sludge.

- 503.16(a)(2) authorizes the permitting authority to roll back the frequency of monitoring. This is based on the assumption that the facility would be receiving sludge from the same source(s) and there would emerge a pattern of consistency over a period of time. However, it would be helpful if this assumption was spelled out. Also, it should be stated that any time a facility receives sludge from a new source, the monitoring requirements would start anew.

- The 38D rule, in 3.3.1.c, allows for a facility to be constructed in the 100 year flood plain if ". . . provisions have been made to prevent the encroachment of flood waters upon the facility." It is not a good idea to site a solid waste facility in the 100 year flood plain, especially if it is one that handles mixed solid waste. Even if there are circumstances where it may be appropriate, there is no provision that the applicant petition for the variance or that the DEP has to evaluate the proposal, inspect the site, or that the DEP has the power to deny the variance. I recommend that the proviso be dropped.

Siting restrictions and location standards

Almost all these standards are inadequate when compared to other states' and are not protective of surface or groundwater or soil health. I submit the following:

Sewage sludge or septage must not be applied on snow, frozen or saturated ground, or during rainfall.

Land within 300 feet of surface water to include springs, ponds, wetlands, or other collection points for surface water.

Land within 1000 feet of drinking water supply wells or other personal water supply.

Land within 600 feet of an occupied dwelling when the owner's consent is obtained in writing, 1,000 feet when the owner's consent is not obtained.

Land that has tested and determined to have a pH of less than 6.5.

Land that has a slope greater than 15%. Land that has a slope greater than 6% but less than 15% may be approved for the surface application of sludge only when it can be shown that there is sufficient vegetation or vegetative residue to prevent ponding, runoff and other nuisances. The application equipment must be capable of uniformly applying the sludge on the slope to prevent ponding, runoff and other nuisances.

Land that has less than 36 inches of soil over bedrock or an impervious pan.

The restriction presented in §47-38D-3.2.1.1 is completely contrary to the intent and language of S.B. 288. West Virginia Code §20-5F-2(b)(6) requires "That no person or entity be allowed to apply sewage sludge to land in a manner that will result in exceeding the maximum soil concentration for all pollutants . . ." The 503 loading rates are not tied to existing soil concentrations in any way. I have enclosed a table showing allowable concentrations for compost that Ontario and British Columbia have developed. When the Ontario concentrations, which are based on the average metals concentrations in rural soils, are examined, it becomes clear that the 503 numbers are not protective of existing soil conditions, nor do they implement the intent or language of §20-5F-2(b)(6).

The Ontario numbers or the British Columbia numbers would satisfy the requirements of §20-5F-2(b)(6) much more so than would the 503 numbers, and I recommend that they be used.

POTW liner requirements

The liner requirements described in §47-38D-3.3.1.d. are inappropriate and prohibitive for the many small POTWs in the state. To have just this one liner requirement will force the smaller POTWs to use the services of a landfill or large commercial sludge processing facility. This will be expensive also, due to transportation costs and tipping and assessment fees, and erode the affected communities' self sufficiency.

By way of example, the Charleston POTW generates about 420 tons per month of sludge. This is one of the larger facilities in the state and is probably capable of complying with the proposed requirement. Most POTWs

in the state are considerably smaller. New Martinsville (pop. 6,000) generates 50 tons per month at 56% solids. Based on the New Martinsville figures, Grantsville (pop. 800) generates 6.5 tons per month at 56% solids. I don't know where to determine the cutoff point, but there has to be allowances made for small quantity generators, it is certainly not an uncommon feature in our state regulations. Such quantities as 6.5 tons per month certainly don't pose the environmental hazard that large quantities do. A spill at such a facility would be comparable to a land application. A reasonable liner for small POTWs would be concrete or asphalt over a clay or bentonite subbase. A 2 to 5% slope to a system of ditches for leachate collection. The requirement for 6 inches of reinforced concrete is only necessary to accommodate the concentrated weights that are encountered with unloading large trucks at commercial facilities. A small POTW processing its own sludge on site would not need the 6 inches of concrete for the processing area since there would not be large trucks delivering sludge. Perhaps a 6 inch pad for loading would be in order at some facilities that would require large trucks to haul the processed sludge away. Any such variances aimed at smaller facilities should prohibit the processing of mixed solid waste.

Applicability of permits

The language in §47-38D-4.1.3 is almost word for word the same language that was in the bill drafted by the DEP when it was first introduced during the 1993 regular session. That language was intentionally dropped from both the House bill and the Senate bill because it was viewed as a vehicle to grandfather in commercial sludge processing operations that had not undergone the pre-siting and siting requirements of the West Virginia Code. The House and the Senate both passed resolutions in reaction to the massive amounts of sludge that were being processed by commercial operations that had not undergone the siting and public approval requirements of the West Virginia Code. The fact that this language has been put into this rule demonstrates a blatant disregard for the Legislature of the State of West Virginia.

The way that 4.1.3 is worded, a solid waste facility handling relatively "benign" portions of the waste stream, such as a materials recovery facility or a yard waste composting facility, could handle sewage sludge just by filing a management plan. There is not even a provision that the plan needs to be approved by anyone! It is clear that in such instances, a certificate of site approval should be obtained, a Certificate of Need should be obtained, the site should be in a zone authorized by the local authority's siting plan for the operation, the public should be notified and have the opportunity for

comment and a hearing, and all other siting and permitting requirements provided for in the Code be should be met. If existing facilities are to process sewage sludge as a part of the existing solid waste permit, then it should be as a major modification which shall require submission of a new permit application subject to all the siting and permitting requirements of the West Virginia Code.

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The fact that §20-5F-2b(b)(5) uses the words "may require a surety bond" indicates that there is to be some flexibility in the requirement of the bond. It is understood that such bonding is difficult to get, and it was not the intent of the legislature to require it of operations that are not likely to result in environmental degradation. With pollutant concentrations that truly implement the intent of §20-5F-2b(b)(6), such as the ones I have submitted herein, and with the agronomic rate requirement in 2b(b)(7), I would think that most land applications of the type and size currently being performed by POTWs would not be required to post a bond. The type of operation requiring bonding would be one that is more likely to threaten ground or surface water, soil health and the public health and safety. Such an operation would have the following characteristics:

* large applications of sludges,

* higher contaminant levels, such as British Columbia Concentration Codes 3 and 4, or Ontario's controlled-compost class for restricted use,

* involve applications above the agronomic rate, such as the rates up to 25 tons per acre per year that are allowed in the reclamation of surface mine land,

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* involve slopes between 6 and 15 percent

The bonding language from Title 47 Series 38, section 3.13 could be used with some minimal changes:

Title 47, Series 38, section 3.13.2.a could read "All bonds must be submitted under the requirements of these regulations on a form prepared and furnished by the director, must be made payable to the State of West Virginia, and must provide for continuous liability from the initiation of operations at the ~~facility~~ land application site for the full term of the ~~permit~~ operation and for up to ~~ten (10)~~ five (5) years after ~~final closure of the permit~~ operations have been concluded at the land application site. Any further time period necessary to achieve compliance with the requirements in the closure plan of the permit shall be considered an additional liability period."

Title 47, Series 38, section 3.13.13. could be reworded to reflect the amounts required for land application sites. I suggest a minimum of $50,000 and an amount of from one thousand to four thousand dollars ($1,000 to $4,000) per acre at the discretion of the director.

Fees

I have expressed my concerns over the remediation fee in the discussion of bonding, above. I feel the remediation fee as presented in §47-38D-6.3.1 should be eliminated in favor of the bonding that S. B. 288 contemplated.

The language in §47-38D-6.3.2 should be amended so that the fee is collected from the actual tons that are land applied.

§47-38D-6.3.3. places the fees collected from sewage sludge in the Solid Waste Enforcement Fund. The language in S. B. 288 states that "All sewage sludge . . . . be subject to the same tipping and other fees levied by this chapter. . ." There is no stipulation in the code that the solid waste assessment fees, the recycling assessment fee, and the solid and hazardous waste supplemental assessment fee all be deposited in the Solid Waste Enforcement Fund in the case of sewage sludge. It is clear that since sewage sludge is solid waste and subject to the "same .... fees" levied by chapter twenty on the disposal of solid waste, that these fees collected from sewage sludge be handled the same as the fees from other solid waste. The code is quite clear on how these fees are dedicated, and they are not all dedicated exclusively to the Solid Waste Enforcement Fund. I refer the reader to §20-5F-5a, §20-5N-4, §20-11-5a, and §20-11-5b. The way that §47-38D-6.3.3.3 is worded, funds are erroneously diverted from other programs. The section should be amended to accurately reflect the code.

This point aside, §47-38D-6.3.3.3 is still not clear. This section is where the intent of §20-5F-2b(e) must be implemented. That section of the code has been difficult to interpret since its drafting, but this rule does nothing to clarify how the DEP is going to implement it.

I was present at the legislature during the regular session and one of my primary focuses was the sludge bill. It was my perception that no party intended for Publicly Owned Treatment Plants (POTWs) to be considered and treated as solid waste facilities. The definition of Solid waste facility mentions "sewage sludge processing facilities", and "sewage sludge processing facilities" are defined as solid waste facilities, but a POTW is the generator of the sludge, not necessarily the processor. In the event that a POTW does process sludge, this is addressed in the definition of Composting facility by the language that states ". . . but does not include a facility for composting solid waste that is located at the site where the waste was generated." This language was put there for the express purpose of accommodating POTWs. Section 2b (c) further addresses this issue by allowing a POTW to have a sewage sludge processing permit as part of its NPDES permit and file a sludge management plan.

All sewage sludge received by a solid waste facility processing sewage sludge (except for POTWs processing on-site) should be subject to tipping and disposal assessment fees and be included in that facility's tonnage. At the time when sewage sludge that is intended for land application is actually land applied, then the facility could be credited for the disposal assessment fees. This should be less of a paperwork problem than waiting until a batch of sludge is processed and tests indicate that it is fit for land application before counting, or charging for, the sludge at all.

§20-5F-2b(12) provides that "The fee schedule shall vary according to the volume of materials handled and the contaminant level of the sewage sludge . . ." This proviso was crafted not only to encourage the production of a "clean" material, but to accommodate the smaller POTWs. This provision has been completely ignored in the 38D rule.

The material would still be included in the facility's tonnage, because in West Virginia a solid waste facility is defined according to how much solid waste it handles (see definition of Class A facility). Whether a sludge processing facility disposes of the product in a landfill, or markets all the finished product for land application, does not change the fact that the facility handled the tonnage that arrived at its gate.

As far as tipping fees are concerned, Section 2b (e) is confusing in that it seems to consider a tipping fee as something that is levied by Chapter Twenty of the Code. It is my understanding that a tipping fee is what the facility charges to meet its overhead and make a profit. If a sewage sludge processing facility has to charge a tipping fee in order to do business, it will be in big trouble if it has to refund that fee when the processed sludge is land applied. If the sludge processing facility is part of a landfill operation, then the facility should credit the customer for the portion of the fees that would have covered the placing of the sludge in a disposal cell. Or perhaps there could be a separate tipping fee for the processing of sewage sludge that would be charged when the material arrives at the facility, and the disposal tipping fee could be charged if and when the material is landfilled. In any case, the rates that a facility can charge are regulated by the PSC, and that is not provided for in Chapter Twenty. Has the PSC been consulted in the promulgation of this rule? If there is to be any regulation of tipping fees as a result of S. B. 288, it would seem that it would be the responsibility of the PSC.

Standards for application

The 38D rule has no operational standards for land application, which is a glaring deficiency. I propose the following:

1. Sludge shall not be held over-night or stockpiled at any site where application is planned. or . . . Sludge that is to be stored overnight at an application site shall be contained in a transfer-storage tank or day tank. In no event shall sludge be stored at an application site over one week.

2. Sludge must be incorporated into the soil as it is applied, or it may be applied onto recently plowed soil and be disced into the soil within twenty-four hours.

3. There shall be no application of sludge by spray irrigation except by special permit issued by the Chief showing that no substantial health hazard is likely to occur and unnecessary hardship will otherwise result.

4. There shall be no application of sludge except during the hours of daylight.

5. Entrances and exits to any field or tract of land on any site shall not be made through a roadside ditch.

6. All vehicles used for transporting sludge shall be so constructed and operated as to avoid spillage or discharge onto public roads. Any spillage which may occur on any roadway will be cleaned daily.

7. Haulers must maintain their vehicles so that there is not "track-on" to roadways, no spillage, and their appearance does not create a nuisance.

8. Public access to the land application site is prohibited for at least 12 months after the last application of sewage sludge or septage, and must be controlled during that period by the use of fences and gates, signs or posted signs. Dairy cattle must not graze for at least 12 months after the last application and other animals, excluding wild game, must not graze for at least two months after the last application.

9. Land application is permitted only when the beneficial value of the sewage sludge or septage as a supply of nutrients or as a soil conditioner can be demonstrated.

10. No sewage sludge may be disposed or applied so as to adversely affect the food chain, cause a health hazard, cause odors or allow vectors.

11. No crop for direct human consumption may be grown on sewage sludge or septage amended soil.

12. Tobacco may not be grown on sewage sludge or septage amended soil.

13. The DEP may revoke the applicator's permit for non-compliance or if a health hazard arises.

Miscellaneous

The incorporation of the Federal regulations 40 CFR part 503 is inappropriate and unwieldy for several reasons:

1. The part 503 rule was not supplied with the series 38D rule for public comment, so the public did not get a chance to really see what is being promulgated. There can be no effective comment on a rule that one has not seen.

2. S.B. 288 has many provisions that require the West Virginia rule to be more stringent than the federal rule. The incorporation of the 503 rule in full undermines the intent of the legislature.

3. The appropriate provisions of the 503 rule should be written into one regulation along with the 38D rule. This would avoid a lot of inconsistency and confusion as well as comply with the provisions of Title 153 Series 6 Standard Size and Format for Rules and Procedures for Publication of the State Register or Parts of the State Register.

§47-38D-4.1.4 defines surface disposal sites as "landfills" that must meet all requirements of Title 47, Series 38 applicable to landfills. This is fine as far as it goes, but in that case, the entire Subpart C of Part 503 should be deleted. Also, as a landfill, they should be subject not only to the Title 47 Series 38 rule, but all the relevant requirements of Chapters twenty and twenty-four.

§47-38D-4.1.2 leaves out the provision in §20-5F-2b(c) that the sewage sludge management plan be approved by the chief. This provision should be in the rule.

§47-38D-4.2.3.n. requires that soil pH be 6.2. This should be changed to 6.5. Every presentation I have heard concerning land application, whether it was given by proponents or opponents of the practice, has specified a pH of 6.5. New York and Pennsylvania both specify a pH of 6.5. That is the number we should use.

There should be language in the rule that exempts individual septic tank owners from the provisions of the rule.

There should be language in the rule that exempts farmers applying sludge in amounts below a specified level on their own farms from paying a fee and perhaps certain other provisions.

This rule and its concomitant incorporation of the 503 rule fails to implement the intent of S. B. 288 in so many ways, as I have noted in my comments, and is generally deficient in so many areas, that the DEP should withdraw this rule and promulgate one that will truly implement the intent of the legislature. With all due respect, I submit that with reference to the land application program, the Office of Waste Management does not have sufficient knowledge to promulgate rules or administer a program. Yet the Chief of the Office of Waste Management seems to have primacy over the program. The West Virginia Sewage Sludge Program: Use and Disposal of Municipal Wastewater Sludge, while it needs strengthening and funding, is a better foundation for a land application rule than is the 503 rule. The knowledge and expertise of the Office of Water Resources, the Office of Air Quality, WVU, the PSC, soil scientists, the Department of Agriculture, the

Solid Waste Management Board, the environmental community as well as representatives of the general public should be utilized in drafting a set of regulations that will truly provide for the efficient and necessary regulation of sewage sludge in West Virginia. If this rule is filed as it is, it will not protect us from the emergency that the legislature has declared, rather it will exacerbate the emergency.

This concludes my comments on the Series 47 Title 38D and the Federal regulation 40 CFR part 503 regulations.

Sincerely,

Tom Degen, member
Solid Waste Interagency
Coordinating Committee and
Composting Regulations Review Team

cc: Senator David Grubb
Delegate Brian Gallagher
Senator Don McNaughton
Ken Hechler, Secretary of State
Norm Steenstra, environmental coordinator, Citizens Action Group

TABLE 2: Metals and PCB Concentrations for MSW Compost in Ontario, British Columbia

	CONCENTRATION (mg/kg dry mass)				
	ONTARIO	BRITISH COLUMBIA CODE			
		# 1	# 2	#3	# 4
ARSENIC	≤ 10	≤ 13	> 13-30	> 30-50	> 50
CADMIUM	≤ 3	≤ 2.6	>2.6-10	> 10-20	> 20
CHROMIUM	≤ 50	≤ 210	>210-500	>500-800	>800
COBALT	≤ 25	≤ 26	> 26-100	>100-300	>300
COPPER	≤ 100	≤ 100	>100-300	>250-500	>500
LEAD	≤ 150	≤ 150	>150-500	>500-1000	>1000
MERCURY	≤ 0.15	≤ 0.83	>0.83-5	> 5-10	> 10
MOLYBDENUM	≤ 2	≤ 7	> 7-20	> 20-40	> 40
NICKEL	≤ 60	≤ 50	> 50-200	>200-500	>500
SELENIUM	≤ 2	≤ 2.6	>2.6-6	> 6-10	> 10
ZINC	≤ 500	≤ 315	>315-800	>800-1500	>1500
PCB	≤ 0.5	--	--	--	--

The maximum allowable metals concentrations for Ontario are based on the average metals concentrations in rural soils which are adjusted for desirable micronutrients. For example, the allowable zinc concentration was increased from 220 to 500 ppm because most soils are zinc deficient. At the moment Ontario has only the one class of MSW compost which can be used on an unrestricted basis; however, a controlled-compost class for restricted use is being considered. Some allowable metals concentrations for this class were increased as follows: arsenic becomes 20 ppm, cadmium 4, copper 100, lead 500, mercury 0.5, and molybdenum 3 (MOE, 1991).

British Columbia has proposed the use of the six classifications of MSW compost listed in Table 3 along with the use restrictions outlined in Table 4. Definitions of mature, semi-mature and fresh compost are provided in the British Columbia guidelines. Maximum acceptable cumulative limits of heavy metals applied to soils within a 45 year period were also established. If any one of the metal concentrations is exceeded, the compost falls in the next lower classification.

TABLE 3: Summary of British Columbia Compost Quality Classifications.

COMPOST TYPE	SS	A	B	C	D	E
METAL CONCENTRATION CODE	1	1	1 OR 2	1, 2 OR 3	1, 2 OR 3	4
FEEDSTOCK	SS	MSW	MSW	MSW	YW SS MSW	MSW
MATURITY	Mature, Semi-mature	Mature	Mature, Semi-mature	Mature, Semi-mature	Fresh	N/A
FOREIGN MATTER	$\leq$ 1%	$\leq$ 1%	$\leq$ 2%	$\leq$ 10%	$\leq$ 10%	N/A
WATER CONTENT	$\leq$ 50%	$\leq$ 50%	$\leq$ 50%	$\leq$ 50%	N/A	N/A

MSW: Municipal Solid Waste; SS: Source Separated Waste; YW: Yard Waste.

TABLE 4: Summary of British Columbia Compost Use Restrictions by Classification.

CLASSIFICATION	RESTRICTIONS
SS and A	Unrestricted Distribution
B	Non-Food Applications: parks, forested lands, forest and horticultural nursery industry
C	Non-Food Applications: parks, forested lands, forest and horticultural nursery industry
D	Land Reclamation Projects with Limited Potential for Public Contact
E	Disposed of in Landfill

PART 503 NUMERICAL CRITERIA FOR LAND APPLICATION

ELEMENT	CUMULATIVE LOAD (kg/ha)	APL (Clean Sludge) (mg/kg)	APLR (kg/ha/yr)
Arsenic	41	41	2.0
Cadmium	39	39	1.9
Chromium	3,000	1,200	150
Copper	1,500	1,500	75
Lead	300	300	15
Mercury	17	17	0.85
Molybdenum	18	18	0.90
Nickel	420	420	21
Selenium	100	36	5.0
Zinc	2,800	2,800	140

APL - Annual Pollutant Load
APLR - Annual Pollutant Loading Rate

FILED

6-24-1993

Secretary of State Ken Hechler
State Capitol Complex
Charleston, WV 25305

Dear Secretary Hechler:

My colleagues and I have spent the past several weeks examining the state's newly promulgated Series 38D regulations, prepared pursuant to SB 288, the sewage sludge regulation bill passed during this year's regular legislative session. During this time, we have grown increasingly alarmed at the degree to which the proposed regulations fail to comply with the policy guidelines established by SB 288.

The disparity between these regulations and the new state law is such that we feel to obligated to request that you consider exercising your power, as granted by West Virginia Code, to refuse to approve emergency regulations or parts thereof.

We thank you for your time and consideration.

Sincerely,

Jedediah S. Purdy

Jed Purdy.

WEST VIRGINIA-CITIZEN ACTION GROUP
1324 VIRGINIA STREET, EAST • CHARLESTON, WEST VIRGINIA 25301 • 304-346-5891

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1. Our first concern is that the DEP incorporates into the Series 38D regulations, wholesale and by reference, the federal Series 40, Part 503 regulations. While this EPA document does provide certain language that might be usefully synthesized with state-promulgated regulations to produce a comprehensive regulatory package, the union of 503 with the 38D draft regulations produces a package rife with contradiction and noncompliance with code. As described in greater detail below, SB 288 proscribes dedicated sewage sludge disposal sites, while the 503 regulations permit them; 288 mandates that maximum levels in land-applied sewage sludge be compatible with background metals levels in the recipient soil, whereas the 503 regulations explicitly ignore background levels; 288 enumerates an impressive list of reporting requirements, few of which are present in the 503 reporting section. These egregious examples serve only to highlight a few of the many contradictory points that demonstrate the 503 regulations, when taken indiscriminately, to be incompatible with state policy.

2. SB 288 (now state code), 20-5F-2b (e), provides that, "...no land within a solid waste facility, but outside a landfill disposal cell, be allowed to accept the permanent application of so much sewage sludge as to exceed the agronomic rate or fifteen dry tons per acre per year, whichever is less:". This language is intended to proscribe so-called "dedicated sites", on which large quantities of sludge are land-applied within a solid waste facility, but outside of the facility's landfill cell. This practice, governed by environmental protection requirements less stringent than those that apply to landfilling, results in both an overload of soil with metals and nitrogen and the transmission of these substances to ground and surface water.

In contrast, WV regulatory code, 47-38D-3.2.3, reads, "No land, except a solid waste facility, shall be allowed to accept or store so much sewage sludge as to exceed the agronomic rate or a rate of fifteen dry tons per year, whichever is less..." Furthermore, the fully incorporated federal regulations, 503.23(b)(1), explicitly allow dedicated sites within such facilities by the following language: "At the time of permit application, the owner/operator of a surface disposal site may request site-specific pollutant limits in accordance with 503.23(b)(2) for an active sewage sludge unit without a liner and leachate collection system . . . when the permitting authority determines that site-specific pollutant limits are appropriate for the active sewage sludge units." In combination, these regulations encourage precisely the practice which the legislature intended to end by the passage of SB 288.

3. SB 288, 20-5F-2b (b) (6) mandates that the regulations at issue require, "That no person or entity be allowed to apply sewage sludge to land in a manner that will result in exceeding the maximum soil concentration for all pollutants, including, but not limited to, arsenic, cadmium, chromium, copper, lead, mercury, molybdenum, nickel, selenium and zinc...." The intent of this language is to safeguard soil quality by ensuring that calculations of the maximum acceptable quantities of pollutants that may be land-applied without exceeding safe limits of cumulative soil pollutant contents incorporate the background levels of those pollutants in the soil. The legislature meant thereby to control the total concentration of pollutants in any soil to which sewage sludge is applied, rather than merely the quantities added to pre-existing levels..

47-38D-3.2.2., addresses this issue through incorporation of the federal 40 CFR Part 503 regulations, stating simply that, "No person or entity shall be allowed to apply sewage sludge to land in a manner that will result in exceeding the maximum soil concentration for all pollutants, including, but not limited to, arsenic, cadmium, chromium, copper, lead, mercury, molybdenum, nickel, selenium and zinc, to be determined upon cumulative loading rates of 40 CFR, 503.13(b)(2) and 503.12(e)(2).

By incorporation of the 40 CFR Part 503 regulations, the DEP includes the following language, from 503.12(e)(1)(ii): "If bulk sewage sludge subject to the cumulative pollutant loading rates in 503.13(b)(2) has not been applied to the site since [insert 120 days after the effective date of this part], the cumulative amount for each pollutant listed in Table 2 of 503.13 may be applied to the site in accordance with 503.13(a)(2)(i)." This language, in combination with the absence of any reference to background levels elsewhere in 40 CFR Part 503, assumes the background levels of all pollutants to be zero. Thus, the regulations control not the total pollutant concentration of the soil, but only the total quantity of pollutants applied to the soil after these regulations take effect. This effect diverges radically from legislative intent.

4. SB 288, 20-5F-2b(e) declares that, "All sewage sludge placed in, or upon, or used by a solid waste facility or processed or handled, pursuant to a permit issued by the division of environmental protection, shall be subject to the same tipping and other levied by this chapter on the disposal of solid waste and shall be included in said facility's total tonnage...." After revision by a subsequent proviso, this language still clearly requires that all sewage sludge land-applied or landfilled within a solid waste facility be subject to solid waste tipping fees.

Similarly, SB 288, levies fees on the production and import of sewage sludge as follows. "20-5F-2b(b)(12) That a fee, to be paid by the producer or importer, be levied and imposed on the land application of sewage sludge, to be collected at a per ton rate, sufficient to cover the costs of the sewage sludge management program."

The Series 38 regulations are clearly intended to reflect these intentions, but are crafted in such a way as to make their effect uncertain. According to 47-38D-6.1, which precedes the enumeration of the above-mandated fees, "Any person required to obtain a solid waste facility permit, pursuant to these regulations, shall be subject to non-refundable fees, as described herein, which shall be used to cover the costs of future environmental remediation."

By altering the criteria by which the fees are applied from "a permit issued by the division of environmental protection" and "by the producer or importer . . . on the land application of sewage sludge" to "a solid waste facility permit . . . pursuant to these regulations", the authors seem to have inadvertently opened a significant loophole. 47-38D-4.1.3, in the portion of the regulations dealing with permit requirements, reads, "For those sewage sludge processing facilities which are located on or within a facility regulated by the division pursuant to a solid waste permit required under Chapter 20, Article 5F, a sewage sludge processing facility modification will be obtained by the applicant as a part of the existing solid waste permit and shall include a sewage sludge management plan."

Almost identically, state regulation 47-38D-4.1.2 reads, "For those publicly owned treatment works (POTW) which produce sewage sludge and are regulated by the division pursuant to an WV/NPDES permit required under Chapter 20, Article 5A, a sewage sludge processing facility modification will be obtained by the applicant as a part of the existing WV/NPDES permit and shall include a sewage sludge management plan."

As neither of these facilities' permits is not replaced as a result of 38D's new language, but simply modified (In fact, POTW's do not even hold solid waste facility permits), neither is therefore "issued pursuant to these regulations".

This seemingly arcane point might well prove the source of many headaches if POTW's and landfill operators with extant permits were to read into it an exemption from assessment fees and defend their interpretation in court.

5. SB 288, 20-5F-2b(b)(8), mandates that the resultant regulations ensure, "That information relating to the disposal of sewage sludge is available to affected communities." Although they contain requirements that tonnage and pollutant contents be reported to local solid waste authorities, neither the Part 503 nor the Series 38D regulations make any reference to the dissemination of information to the public.

We offer the following suggestion to bring the Series 38 regulations into keeping with SB 288: require that public notice be given locally and a comment period established prior to the commencement of any land application of sewage sludge or sewage sludge composting program; if the response (in the form of comments) demonstrates considerable public interest, hold a minimum of one public hearing on the project. This mechanism would allow informed public input in the presence of genuine interest, but would not unduly burden the DEP and/or applicators by requiring extensive educational or opinion-gathering efforts in areas where public interest in such projects is small or nonexistent.

6. SB 288, 20-5F-2b(b)(1), stipulates, "That entities either producing sewage sludge within the state or importing sewage sludge into the state are required to report to the division the following:

(i) The specific source of the sewage sludge

(ii) The amount of sewage sludge actually generated or imported

(iii) The content of heavy metals, pathogens, toxins or vectors present in the sewage sludge; and

(iv) Each location that the sewage sludge is stored, land applied or otherwise disposed of; the amount so stored, land applied or otherwise disposed of; and the capacity of that location to accept sewage sludge.

The state regulations repeat these data categories in 47-38-4.2.1 and 4.2.2, 5.1.1, and 5.2.2. but as information mandated only to appear in permit applications or be provided for in newly issued permits. The only reporting requirements that would affect existing sludge processing facilities appear in Series 40 503.27 and 503.28, and read as follows. "(a) When sewage sludge is placed on an active sludge unit: (1) The person who prepares the sewage sludge shall develop the following information and shall retain the information for five years.

(i) The concentration of each pollutant listed in table 1 of 503.23 in the sewage sludge when the pollutant concentrations in table 1 of 503.23 are met.

(ii) The following certification statement: `I certify, under penalty of law, that the pathogen requirements in [insert 503.32 (a), 503.32 (b), 503.32(b)(3), or 503.32(b)(4) when one of those requirements is met] and the vector attraction reduction requirements in [insert one of the vector attraction reduction requirements in 503.33(b)(1) through 503.33(b)(8) when one of those requirements is met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine the [pathogen requirements and vector attraction reduction requirements if appropriate] have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.'

(iii) A description of how the pathogen requirements in 503.32(a), 503.32(b)(3), or 503.32(b)(4) are met when one of those requirements is met.

(iv) A description of how one of the vector attraction reduction requirements in 503.33(b)(1) through 503.33(b)(8) is met.

(2)

The owner operator of the surface disposal site shall develop the following information and shall retain that information for five years.

(i) The concentration of each pollutant listed in Table 2 of 503.23 in the sewage sludge when the pollutant concentrations in Table 2 of 503.23 are met or when site-specific pollutant limits in 503.23(b) are met.

(ii) The following certification statement:

`I certify, under penalty of law, that the management practices in 503.24 and the vector attraction reduction requirement in [insert one of the requirements in 503.33(b)(9) through 503.33(b)(11) if one of those requirements is met] have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the management practices [and the vector attraction reduction requirements if appropriate] have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.'

(iii) A description of how the management practices in 503.24 are met.

(iv) A description of how the vector attraction reduction requirements in 503.33(b)(9) through 503.33(b)(11) are met if one of those requirements is met. . . .

503.28 Reporting

(a) Class I sewage sludge facilities . . . shall submit the information in 503.27(a) to the permitting authority on [insert the month and day from the date of publication of this part] of each year."

This language ignores completely the mandates of SB 288, 20-5F-2b(b)(1)(i), (ii), and (iv). Furthermore, it fails to satisfy fully the requirement of 20-5F-2b(b)(1)(iii), as the pollutants listed in Table 2 of 503.23 are only arsenic, chromium, and nickel. This list is far from an exhaustive enumeration of heavy metals, among which SB 288, 20-5F-2b(b)(6) includes both the above and cadmium, copper, lead, mercury, molybdenum, selenium, and zinc. Furthermore , this list fails utterly to comply with 20-5F-2b(b)(1)(iii)'s dictate that the quantity on pathogens, toxins, and vectors in the sludge be reported. In short, the regulations make virtually no effort at meeting the reporting requirements contained within SB 288.

The dangers of these omissions are fairly obvious. Without knowledge of the source of sewage sludge, the DEP cannot contact officials in the sludge's state of origin to ascertain the production processes and corroborate quality assessments of the sludge. Absent reporting of the total tonnage of sludge imported, the division cannot ensure that assessment and land application fees are paid commensurate to the quantity of sludge actually brought into the state. Lacking descriptions of the specific location of sludge within a facility, DEP cannot adequately enforce storage guidelines or confirm that use of illegal dedicated sites is not taking place. Finally, without data detailing the pollutant, toxin, pathogen, and vector contents of imported sewage sludge, the division simply cannot safeguard soil quality or public health.

22 July 1993

Administrative Law Division
Office of the Secretary of State
Suite 157-K
Capitol Building
Charleston WV 25305

Having attended only last week in Braxton County yet another public hearing on the Meadows landfill and its proposed takeover and expansion by New Jersey garbage haulers, I can only view with alarm the role the DEP has assumed. Watching the stoical, frozen faces of the men as they sit through these charades of public input, we must wonder to whose drummer they march. People in Braxton County and over the state have said emphatically, over and over, and in every way they know that they do not want further exploitation of our land by opportunistic--and worse--entrepreneurs of the waste business.

So why is the press continuing?

We cannot help but wonder that support for their machinations continues to flow from the regulatory agencies and men reputedly close to the Governor. I understand that your office must approve or disapprove the proposed regulations for SB 288. By rejecting these proposed regulations and opening the way for regulations more in line with the wishes of the people and the intent of the legislature, your office can influence substantially a more acceptable public policy.

I would like to think that that is what will happen.

Sincerely,
Mary S. Black
Box 18
Stouts Mills WV 26439

FILED
Jul 27 9 15 AM '93
OFFICE OF WEST VIRGINIA SECRETARY OF STATE

Mr. and Mrs. Carl G. Rucker
Rt. 2, Box 238
New Martinsville, W.Va.
26155

7-16-93

FILED
JUL 19 9 33 AM '93
OFFICE OF WEST VIRGINIA SECRETARY OF STATE

Dear Ms. Cooper:

My husband and I do not feel that the "Sewage Sludge Management Regulations," meet the intent of the Legislature. They are clearly in violation of present state law and 'Grandfather in' everything for existing and future facilities, which is very upsetting.

We live 1½ miles from the Wetzel County Landfill and have been fighting the ever increasing influx of garbage, and now sludge, that have been seeping into our beautiful state and our own backyard, so to speak, for many years and the above mentioned Regulations are just another slap in the face.

Just this week a load of sludge was being hauled to the Wetzel County Landfill, via Pennsylvania, and while in route dumped its precious cargo onto W.Va. 2, closing it for 4 hours. The stench, as reported by many, was intolerable. I, for one, would rate it right up there with the stench emanating from our State Capitol!

In closing, Pat Mascara and his bunch are all alike and care about one thing, and one thing only - how they can make more money at the expense of other peoples health and well-being. They do not care if a truckload of sewage is dumped in New Martinsville or anywhere else for that matter, as long as they don't live there and have to breath it.

Sincerely,

(Bethany A. Rucker)

See back for sludge loads

WETZEL COUNTY LANDFILL

07/13/93
PAGE 1

DAILY ACTIVITY JOURNAL REPORT FOR
07/13/93
CUSTOMER: ALL WASTE STREAM: ALL

CUSTOMER	TRUCK	TRAILER	COUNTY	WASTE	TONS
SISTERVILLE, CITY OF	RE01		5	02 RESIDENTIAL WASTE	5.42
.W.S., INC. OF WV	FE28		6	01 COMMERCIAL WASTE	7.85
OLID WASTE SERVICES INC	TR01		113	02 RESIDENTIAL WASTE	16.89
OLID WASTE SERVICES INC	R001	OT30	128	03 INDUSTRIAL WASTE	15.46
OLID WASTE SERVICES INC	R002	OT30	128	03 INDUSTRIAL WASTE	11.26
.W.S., INC. OF WV	R056	OT30	5	03 INDUSTRIAL WASTE	6.75
.W.S., INC. OF WV	R085	OT30	3	06 ASBESTOS WASTE	8.26
ENKINS CONTRACTING #1	PU01		6	02 RESIDENTIAL WASTE	0.84
ENKINS CONTRACTING #3	RE03		6	02 RESIDENTIAL WASTE	4.30
.W.S., INC. OF WV	RE59		6	02 RESIDENTIAL WASTE	13.52
.W.S., INC. OF WV	R038	OT30	128	03 INDUSTRIAL WASTE	3.42
ISCELLANEOUS - INSHED	PU01		6	02 RESIDENTIAL WASTE	1.85
UCKEYE BUILDERS	TR01		128	04 DISPOSABLE DEMOLITI	0.62
OLID WASTE SERVICES INC	R001	OT30	128	03 INDUSTRIAL WASTE	6.90
.W.S., INC. OF WV	R085	OT30	3	03 INDUSTRIAL WASTE	14.00
ISCELLANEOUS - INSHED	PU02		5	02 RESIDENTIAL WASTE	0.40
OLID WASTE SERVICES INC	TR130	TT7538	110	02 RESIDENTIAL WASTE	23.56
OLID WASTE SERVICES INC	TR130	TT7557	110	02 RESIDENTIAL WASTE	23.71
.W.S., INC. OF WV	R079	OT30	5	02 RESIDENTIAL WASTE	1.45
.W.S., INC. OF WV	FE28		5	01 COMMERCIAL WASTE	5.35
.W.S., INC. OF WV	R038	OT30	128	03 INDUSTRIAL WASTE	5.02
.W.S., INC. OF WV	RE01		5	02 RESIDENTIAL WASTE	4.82
ISCELLANEOUS - INSHED	PU03		5	02 RESIDENTIAL WASTE	0.58
OLID WASTE SERVICES INC	TR130	TT7994	110	02 RESIDENTIAL WASTE	23.24
OLID WASTE SERVICES INC	R001	OT40	128	03 INDUSTRIAL WASTE	2.34
.W.S., INC. OF WV	R085	OT30	3	03 INDUSTRIAL WASTE	20.57
OLID WASTE SERVICES INC	TR130	TT7506	110	02 RESIDENTIAL WASTE	24.18
OY SANITATION SERVICE	TR01		6	02 RESIDENTIAL WASTE	2.54
.W.S., INC. OF WV	R079	OT30	5	03 INDUSTRIAL WASTE	2.53
.W.S., INC. OF WV	RE48		3	02 RESIDENTIAL WASTE	11.55
ISCELLANEOUS - INSHED	PU04		6	02 RESIDENTIAL WASTE	2.04
CINTIRE CARTAGE	RE02		128	02 RESIDENTIAL WASTE	8.75
OLID WASTE SERVICES INC	TR130	TT7961	110	02 RESIDENTIAL WASTE	24.96
.W.S., INC. OF WV	RE48		6	02 RESIDENTIAL WASTE	1.10
CINTIRE CARTAGE	RE01		128	02 RESIDENTIAL WASTE	7.58
	TRANSACTIONS:	35			313.61

7/13/93

Customer SWS

Truck # DT108 Mixed Compost Materials

110 Lehigh ~~Valley~~ County PA

GW 81540 lbs

Tare 34900

Net ~~44~~ 46640 lbs = 23.32 tons

C.O.D. 000

signed J Rutenz

7/13

Truck DT5 Mixed Compost Materials

110 Lehigh Co.

GW 79,340

Tare 33,100

Net 46,240 = 23.12 tons

C.O.D. 0.00

R Rudender

7/13

Truck D28 Mixed Compost Materials

Gross 81,120

Tare 34,720

46,400 = 23.20

7/13

Truck # D102 GW 78040

Lehigh Co. Tare 31,400

Net 46,640 = 23.32 Mixed Compost Materials

7/13

Truck DT104. GW 75,980

Tare 29,280

Net 46,700 Mixed Compost ~~or~~ materials

23.35

7/13 DT22 GW 78160

32380

45,780 = 22.89 Tons Mixed Compost Materials

7/13/93 DT26 GW 79,180

110 Lehigh Tare 32,360 = 23.41 Mixed Compost Material

Net 46,820

WETZEL COUNTY SOLID WASTE AUTHORITY

200 North Street, Box 9, • New Martinsville, WV 26155 • Phone: (304) 455-5262

July 13, 1993

Customer SWS
Truck # DT108 — Mixed Compost Materials
110 Lehigh County, PA

Gross WEight	81540 lbs	
Tare	34900 lbs	
Net	46640 lbs	= 23.32 tons

July 13, 1993

Truck # DT5
110 Lehigh Co. — Mixed Compost Material

Gross Weight	79340 lbs	
Tare	33100 lbs	
Net	46240 lbs	= 23.12 tons

July 13, 1993

Truck # D28 — Mixed Compost Material

Gross Weight	81120 lbs	
Tare	34720 lbs	
Net	46400 lbs	= 23.20 tons

July 13, 1993

Truck # D102 — Mixed Compost Materials

Gross Weight	78040 lbs	
Tare	31400 lbs	
Net	46640 lbs	= 23.32 tons

July 13, 1993

Truck #104 — Mixed Compost Materials

Gross Weight	75980 lbs	
Tare	29280 lbs	= 23.35 tons
Net	46700 lbs	

July 13, 1993

Truck #DV22 — Mixed Compost Materials

Gross Weight	78160 lbs	
Tare	32380 lbs	
Net	45780 lbs	= 22.89 tons

July 13, 1993

Truck # DV26 — Mixed Compost Materials

Gross Weight	79180 lbs	
Tare	32360 lbs	
Net	46820 lbs	= 23.41

100% RECYCLED PAPER

WETZEL COUNTY SOLID WASTE AUTHORITY
200 North Street, Box 9, • New Martinsville, WV 26155 • Phone: (304) 455-5262

Division of Environmental Protection
Office of Water Resources
1201 Greenbrier St.
Charleston, WV 25311
Attention: Clifton Browning

July 8, 1993

Dear Mr. Browning:

This letter is to verify our conversation this afternoon regarding the Title 47, Series 38D regulations for sewage sludge. I specifically asked you why there were no requirements spelled out for pre-existing facilities that wish to process or are currently processing sewage sludge to modify their permits. You stated that it was the official position of the Division of Environmental Protection that any site currently processing sewage sludge would be exempt from receiving any permit modifications.

When I asked if this meant there would be no opportunity for public notification or input, you stated that this was the case. I respectfully submit to you that the way the current emergency rules and regulations are written they not only perpetuate the emergency they were supposed to eliminate, they also create a loop hole that will allow any type of facility that obtains a solid waste facility permit from the Division of Environmental Protection for recycling, transfer stations, composting facilities or whatever to be exempt from any permit modifcations as well.

During our conversation, I vigorously objected to the DEP's position. Your response was that the DEP's official position was firm and they invited anyone who disagreed with their position to take them to court. The purpose of this letter is to establish for the record the true position of the Division of Environmental Protection.

Furthermore, the purpose of this letter is to clarify the position of the Wetzel County Solid Waste Authority. For the record, the Wetzel County Solid Waste Authority is of the opinion that the DEP's position on exempting any facility that holds a solid waste facility permit and is now or will in the future process sewage sludge from the provisions within the existing rules and regulations regarding major permit modifications is not only a flagrant disregard for the DEP's own rules and regulations, but also constitutes a total disregard for the legislative intent of SB 288. Current rules and regulations require a major modification of a permit to be subject to public notification and a public comment period. There is also an

option for a public hearing. Our Authority endorses public participation as a healthy perpetuation of democracy. We find it curious that the DEP shuns public notification and comment. Furthermore, our Authority finds it reprehensible that the state agency that is supposed to protect the public would prefer to go to court rather than include notification to and comment from the very public they are required by law to protect.

Sincerely,

Martha Huffman
Vice-chair
Wetzel County
Solid Waste Authority

Copies: The Honorable Governor Gaston Caperton
The Honorable Senator Don Macnaughtan
The Honorable Senator Larry Wiedebusch
The Honorable Senator John Chernenko
The Honorable Senator David Grubb
The Honorable Delegate David Pethtel
Brooke County Solid Waste Authority
Larry Harless, Esquire

City Of New Martinsville
Police Department

Carl E. Kocher
Chief of Police

TO SERVE AND PROTECT

193 Main Street
New Martinsville, W.Va. 26155
Telephone: (304) 455-9100

Mayor Richard Snyder
Members of Council:

08-02-93

Re: Sludge Spill Rt. 2 & 07-13-93.

The New Martinsville Police Investigated a Sludge Spill on Route 2 at 5-Way [illegible] Street Extension.

The driver and load were not at the location when Police arrived.

Officer Dave Byers proceeded to the Wetzel County landfill where he located the truck and driver.

Citation was issued to Randy Rickard [illegible] of the vehicle was cited for [illegible] Road. [illegible] check for citation on [illegible].

Sample of sludge was taken and [illegible] Jamie Fenske, DEP
State of WV. (See Attached findings)

Spoke to Jamie [illegible] DEP and he advised analysis of material [illegible] a violation for hauling sludges for [illegible] the load was to be used for composting and at this particular time does not constitute a violation of [illegible].

Carl E. Kocher
Carl E. Kocher
Chief of Police
NMPD

538-0900

FILED
AUG 5 10 21 AM '93
OFFICE OF WEST VIRGINIA SECRETARY OF STATE

STRAIGHT AUG 05 '93 09:38 CITY OF NEW MART. (304)-455-3442 BILL OF LADING—SHORT FORM—UNIFORM—NOT NEGOTIABLE

BY TRUCK ☐ FREIGHT ☐

RECEIVED, subject to the classifications and lawfully filed tariffs in effect on the date of the issue of this Bill of Lading, the property described below in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated below which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of, said property over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the terms and conditions of the Uniform Domestic Straight Bill of Lading set forth (1) in Uniform Freight Classification in effect on the date hereof, if this is a rail or a rail-water shipment, or (2) in the applicable motor carrier classification or tariff if this is a motor carrier shipment.

Shipper hereby certifies that he is familiar with all the terms and conditions of the said bill of lading, set forth in the classification or tariff which governs the transportation of this shipment, and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

From **LEHIGH VALLEY RECYCLING**
COPLAY, PA 18037

At (Mail or street address of consignee—for purpose of notification only.)

DATE 7/12 19 93

SHIPPER'S NO. 51626

CARRIER ↓

CARRIER'S NO.

BY SAR TRUCKING, INC. STI000

3 CONSIGNEE AND DESTINATION
WETZEL COUNTY LANDFILL
RT 1, BOX 156-A
NEW MARTINSVILLE WV

ROUTE

DELIVERING CARRIER

CAR OR VEHICLE INITIALS & NO. VARIOUS TR61 TT610

NO. PACKAGES	HAZARDOUS MATERIALS	DESCRIPTION OF ARTICLES, SPECIAL MARKS AND EXCEPTIONS	*WEIGHT (SUBJECT TO CORR.)	CLASS OR RATE	✓
		COMPOST PRODUCT - OUTBND GROSS	79760		
		TARE	27620		
		DALLAS\NORTH\O.CTY NET	52080		
			26.04		

WETZEL COUNTY LANDFILL
Rt. 1 Box 156A
New Martinsville, WV 26155
(304) 455-3800

Kay S.

Subject to Section 7 of conditions of applicable bill of lading, if the shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement.

The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

Per _____ (Signature of Consignor)

If charges are to be prepaid, write or stamp here, "To be Prepaid."

Received $ _____ to apply in prepayment of the charges on the property described hereon.

Agent or Cashier

Per _____

(The signature here acknowledges only the amounts prepaid.)

Charges Advanced:

$ _____

SHIPPERS CERTIFICATION: This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. SIGNATURE _____ TITLE _____

* If the shipment moves between two ports by a carrier by water, the law requires that the bill of lading shall state whether it is "carrier's or shipper's weight."
† Shipper's imprint in lieu of stamp; not a part of Bill of Lading approved by the Interstate Commerce Commission.
Note — Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property.
The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding _____

C.O.D. SHIPMENT
C.O.D. Amt _____
Collection Fee _____
Total Charges _____

THIS SHIPMENT IS CORRECTLY DESCRIBED.

CORRECT WEIGHT IS _____ LBS.

† The fibre boxes used for this shipment conform to the specifications set forth in the box makers certificate thereon, and all other requirements of the Consolidated Freight Classification.

Per _____ Shipper

LEHIGH VALLEY RECYCLING
Lehigh & Walnut Street, R.D. #1, Coplay, PA 18037

Shipper, Per _____ Agent, Per _____

Permanent post office address of shipper

OPF-040

1

Spoke to Jamie Jenske - DEP

7-30-93- Results of analysis showed the material was only 13% solids a violation for hauling sludges for dumping; unfortunately the load was used for composting and at this particular time does not constitute a violation.

New Martinsville Police Department
Report of Investigation
747 2nd Street
New Martinsville, W. Va. 26155

1. CASE NO. M93-07-18

2. CODE SECTION	3. CRIME	4. CLASSIFICATION	5. DATE REPORTED
	Unsecure Load	Misd.	07-13-93

6. DATE AND TIME OFFENSE OCCURRED	7. LOCATION OF OCCURRENCE	8. TIME REPORTED
07-13-93 Before 7:00AM	WV ST RT 2, Parkway & Leap Street	0701hrs

9. VICTIM'S NAME LAST, FIRST, MIDDLE	10. RESIDENCE ADDRESS	11. RES. PHONE

12. RACE - SEX	13. AGE	14. D.O.B.	15. NAME OF BUSINESS - (IF OCCURRED AT BUSINESS PLACE)	16. BUS. PHONE

17. REPORTING PARTY (OTHER THAN VICTIM)	18. AGE	19. RACE - SEX	20. RESIDENCE

21. DESCRIBE PREMISES AND AREA

22. DESCRIBE HOW OFFENSE WAS COMMITTED

SUspect #1 was driving an 86 Ford Truck south on RT 2 that was pulling a trailer full of sludge south on RT 2. When the suspect stopped for the traffic signal the load shifted spilling sludge onto RT 2 . The suspect then drove to the Wetzel County Landfill and told the pepple there what had happened. They then sent a crew to clean up the spill.

23. MOTIVE

24. DESCRIBE WEAPON - INSTRUMENT - EQUIPMENT - TRICK DEVICE - OR FORCE USED

25. TYPE OF PROPERTY TAKEN -
N/A

26. ESTIMATED LOSS VALUE

27. VICTIM'S ACTIVITY - PRIOR TO/AND/OR DURING OFFENSE

28. SUSPECT NO. 1. LAST, FIRST, MIDDLE	29. RACE - SEX	30. AGE	31. HT	32. WT.	33. HAIR	34. EYES	35. S.S. NO. OR D.O.B.	36. ARRESTED
Sickles, Randy Wayne	W M	21	5-07	175	BRN	BRN	211-54-3215	YES ☒ NO ☐
37. SUSPECT NO. 2. LAST, FIRST MIDDLE	**38. RACE - SEX**	**39. AGE**	**40. HT**	**41. WT.**	**42. HAIR**	**43. EYES**	**44. S.S. NO. OR D.O.B.**	**45. ARRESTED**
								YES ☐ NO ☐

46. SUSPECT NO 1 ADDRESS	47. SUSPECT NO. 2 ADDRESS
RD 4 Box 91 Ebensburg, PA 15931	

48. REPORTING OFFICERS	49. TYPED BY	50. DATE AND TIME	51. REVIEWED BY	52. DATE
D. Byers	M. Durant	07-13-93 1115hrs	C. E. Locke	7-13-93

53. C. I. REPORT BY	56. COMMENTS BY INVESTIGATING OFFICERS
54. DATE	Phone # (814) 472-5278
55. CLEARED BY ☒ ARREST ☐ OTHER	Class A CDL #19-431-349
	Transport Insurance Co. Policy #010711-92

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
903 Methodist Building
11th & Chapline Streets
Wheeling, WV 26003

URGENT FAX

TO: CHIEF KOCHER

TELEPHONE: 455-9100

FROM: JAMIE FENSKE, WVDEP

TELEPHONE: 238-1075

RETURN FAX: (304) 234-0259

CONFIRMATION: (304) 234-0250

COMMENTS: 7-13-93 SLUDGE SPILL
I DO HAVE SOME ADDITIONAL INFO IN THE FORM OF FIELD NOTES AND OBSERVATIONS. CALL IF YOU HAVE QUESTIONS OR CONCERNS.

DATE: 7-29-93

# of PAGES (including cover): 2

State of West Virginia
Division of Environmental Protection
Environmental Enforcement
Incident/Investigation Report

REF# _____
County WETZEL
Basin OHIO

WRC ____ SWC X Spill X Fish Kill ____ By-Pass ____ Other ____
Received by JAMIE FENSKE Date 7-13-93 Time 0745 HRS
Caller DAVE ROGERS Representing CITY OF NEW MARTINSVILLE
Phone Number ____ Address ____
Description of Incident STP SLUDGE FROM SAR TRUCKING INC SPILLED PART LOAD ON ROUTE 2

Specific Location NEW MARTINSVILLE

Responsible Party SAR TRUCKING INC (1-800-598-0281)
Date/Time of Incident 7-13-93 @ 6:30 AM Stream N/A
Material/Quantity Spilled 500 TO 1000 GALLONS
Spill status: (X) Stopped (X) Cleanup in progress ( )
( ) Dead fish noted ( ) Wildlife Notified ( ) Law Enforcement Notified
Investigation findings RANDY SICKLES, TRUCK DRIVER, TIM WADE, STP DAVE BOYERS, NEW MARTINSVILLE POLICE, HENRY PARSONS, OES (WCS)

SPILL OCCURRED WHEN DRIVER ATTEMPTED TO STOP TOO FAST AND OVERTOPPING OCCURRED. WETZEL COUNTY LANDFILL (DESTINATION) CLEANED UP SPILL AND LIMED SPILL AREA. VFD HOSED DOWN AREA AFTER CLEANUP. SAMPLE COLLECTED AND TO BE ANALYZED FOR % SOLIDS. LOAD WAS STABILIZED AT THE LANDFILL. SLUDGE FROM LEHIGH VALLEY RECYCLING TRANSFER STATION, COPLAY PA, WHICH IS A MASCARO FACILITY. DRIVER LEFT SCENE OF THE SPILL? ANALYSIS FOUND TO BE < 13% SOLIDS - A VIOLATION

Action taken CLEAN UP INITIATED & COMPLETED, SAMPLE BEING ANALYZED FOR % SOLIDS

Samples taken YES
Photos taken YES
Relayed to ____ Date ____ Time ____
Investigated by Jamie Fenske Date 7-13-93 Time ____

White - District Yellow - Inspector

BROOKE COUNTY SOLID WASTE AUTHORITY

P.O. BOX 50
WELLSBURG, WV 26070

PHONE NO.(304)-737-0780 FAX NO.(304)-737-0781

June 23, 1993

Attn: Bill Rheinlander

Division of Environmental Protection
Office of Waste Management
1356 Hansford Street
Charleston,WV 25301

Dear Mr. Rheinlander:

Enclosed is a Hard Copy of the letter Faxed to you on Tuesday June 22,1993 at Approx. 2:45 P/M, Please see to it that whom ever you think should have a copy of the letter gets one.

Thank you for your cooperation in this matter.

Very truly yours,

By Silvio Paesani
Silvio Paesani, Chairman
Brooke County S.W.A.

cc:Ken Heckler W/Encl.
John M. Ranson W/Encl.
David Callaghan W/Encl.
Ann A. Spaner W/Encl.
Max Robertson W/Encl.
Richard Cooke W/Encl.
Clifton Browning W/Encl.

FILED

BROOKE COUNTY SOLID WASTE AUTHORITY
P.O. Box 50
Wellsburg, WV 26050

COMMENTS
PROPOSED RULE - TITLE 47, SERIES 38D
SEWAGE SLUDGE MANAGEMENT REGULATIONS

Senate Bill 288, W.Va. Code 20-5F-2b(e), makes sewage sludge subject to the same tipping and other fees levied by "this Chapter", being Chapter 20 of the Code, on the disposal of solid waste.

The proposed Regulation, 47-38D-6.3.3, would make sewage sludge only subject to the tipping and other fees levied by W.Va. Code 20-5F-5a(h)(1).

The statute requires that sewage sludge also be subject to the fee imposed by W.Va. Code 20-9-13 but the Regulation is silent and should, therefore, be expanded to include the 20-9-13 fees.

Dated the 21st day of June, 1993.

Brooke County Solid Waste Authority

By Silvio Paesani
Silvio Paesani, Chairman

The Senate of West Virginia
Charleston

JOHN G. CHERNENKO
SENATE MAJORITY WHIP
1601 PLEASANT AVENUE
WHEELING 26070

FILED
Aug 2 3 54 PM 1993
OFFICE OF WEST VIRGINIA
SECRETARY OF STATE

COMMITTEES:
ENERGY, INDUSTRY AND MINING
FINANCE
GOVERNMENT ORGANIZATION
HEALTH AND HUMAN RESOURCES
LABOR (CHAIRPERSON)
MILITARY

August 2, 1993

The Honorable Ken Hechler
Secretary of State
State Capitol Building
Charleston, WV 26505

Re: Senate Bill 288
Proposed Sewage Sludge Regulations

Dear Secretary Hechler:

I am writing with regard to the above matter as both a concerned citizen of Brooke County and a member of the Legislature. I have learned that the Division of Environmental Protection has proposed regulations concerning the recently enacted Senate Bill 288. This legislation sought to protect our State by regulating the disposal of sewage sludge. This bill was of special interest to the Northern Panhandle as Brooke and Wetzel Counties have apparently been designated as sewage sludge dump sites by landfill operators.

Unfortunately, an element at work within our own State government has seen fit to attempt to undermine this legislation through the development of the proposed regulations which have been submitted to your office. Bureaucrats within the Division of Environmental Protection have now submitted for approval administrative regulations which completely subvert each and every meaningful provision of Senate Bill 288 by either exempting operators from its provisions or interpreting these provisions so as to achieve the same goal.

This bill was a product of intense work by 134 duly elected representatives of the people of West Virginia. These legislators considered the present and future needs of our State and the will of our people in enacting this legislation. It was then ratified by Governor Caperton as it was signed into law.

If these regulations are approved by you, the end result is that the law which the entire Legislature worked to create

and which Governor Caperton endorsed, will be completely and permanently rendered meaningless by forces within our own government. Were they truly concernod with the best interests of the public, these persons at the Division would not have promulgated regulations desiqned intentionally and specifically to counteract the laws of this State. I can only conclude that their actions seek to serve some force other than the best interests of the public.

I respectfully request that you reject these regulations which have been proposed by the Division of Environmental Protection as they are contrary to West Virginia law. To do otherwise will be to permit this renegade element within the executive branch to operate unchecked and to subvert the will of the people of this State, their Legislature, and Governor.

Respectfully,

John G. Chernenko

DEPARTMENT OF COMMERCE, LABOR & ENVIRONMENTAL RESOURCES
DIVISION OF ENVIRONMENTAL PROTECTION
10 McJunkin Road
Nitro, WV 25143-2506

Gaston Caperton
Governor

John M. Ranson
Cabinet Secretary

David C. Callaghan
Director

Ann A. Spaner
Deputy Director

November 22, 1993

The Honorable Ken Hechler
Secretary of State
Capitol Complex, Suite 157-K
Charleston, WV 25305

RECEIVED
1993 NOV 23 AM 9 5
OFFICE OF
SECRETARY OF STATE

Dear Secretary Hechler: Re: Emergency Rule Decision (ERD23-93)

I received your decision dated November 16, 1993, regarding the sewage sludge management regulations filed by my agency. I was shocked and dismayed at the level of error and misinformation displayed in your decision. The decision is directed at the WRONG state agency! The Division of Environmental Protection (DEP), and NOT the Division of Natural Resources, (DNR), filed this rule and the similar emergency rule on sewage sludge management filed by DEP in July. The Office of Waste Management has been within the Division of Environmental Protection since July 1992 by operation of a Governor's Executive Order. The DEP was created in October 1991, two years ago. No less than nine (9) times throughout the body of this decision, the DEP is referred to as the DNR. The two agencies are separate and distinct and have nothing to do with one another on the issue of sewage sludge management.

The most vexing deficiency in your decision is that no reason is given for rejecting the rule. The numbered paragraphs 1-14 of your decision appear to be a meandering stream of discussion about what your statutory duties are with regard to emergency rulemaking. The errors in your letter are as follows:

Paragraph 1: We are not the Division of Natural Resources. The DEP has filed a revised emergency rule to comply with the statutory mandate of Senate Bill 288.

Paragraph 2: West Virginia Code Section is cited here as "29A-3-a" requiring the Secretary of State to review all emergency rules. This is, of course, an incorrect citation. Emergency rule regulation appears in Chapter 29A-3-15 of the Code. The requirements set forth in paragraph 2 appear to be those contained in §29A-3-15(a)(1). DEP has filed this emergency rule in complete compliance with that section. The agency has not exceeded the scope of its authority in promulgating this emergency rule. The Legislature declared that an emergency did exist justifying the promulgation of an emergency rule. See §20-5F-2b(b).

Paragraph 3: Again, the Secretary of State has cited an erroneous Code section. I believe the reference is to the section which outlines the disapproval of emergency rules by the Secretary of State, which appears at Code 29A-3-15a(b). The agency, DEP, reiterates its position that we have complied fully with requirements of this section.

Paragraph 4: Simply sets forth the statutory procedural requirements that appear in Code 29A-3-15.

Paragraph 5: Simply reiterates emergency rule filing procedures which have been complied with by the DEP in this instance. See paragraph 7 below.

Paragraph 6: Again, refers to the filing agency incorrectly as the DNR and notes that we filed the emergency rule with supporting documents with the Secretary of State on October 12, 1993 and with the Legislative Rulemaking Review Committee. This paragraph omits any mention of the fact that Senate Bill 288 required the DEP to file these rules "no later than 90 days from the effective date" of the article. The article was effective April 10, 1993, and the agency first filed the proposed emergency rule on July 8, 1993. As your office knows, due to numerous letters and comments, the agency withdrew the rule and addressed the concerns raised by you prior to refiling it on October 12, 1993.

Paragraph 7: We agree with the conclusion in this paragraph that the Secretary of State found that the DEP (not DNR) complied with procedural requirements.

Paragraph 8: Simply restates the exact language from SB 288 authorizing the agency, DEP, to promulgate this emergency rule, finds the conditions existing justify an emergency rule, and outlines twelve (12) specific requirements to be included in the rule. You should note the requirement in subsection (b)(12), that DEP include a fee to be paid by the producer or importer of sewage sludge sufficient to cover the cost of the sewage sludge management program. All wastewater treatment facilities in West Virginia are producers of sewage sludge. The fact that the law required DEP to assess a fee for land application of sludge through these regulations was clear from passage.

Paragraph 9: In a terse statement, the Secretary of State concludes that "DNR" (sic) read as DEP, "has exceeded its statutory authority in promulgating this emergency rule." I request further explanation. On what facts or documents do you base that conclusion? How or where in this rule has DEP exceeded any of the authorities granted in the statute?

Paragraphs 10-12: These paragraphs undertake a review of West Virginia Code 29A-3-15(g), which defines the nature of an emergency

rule. These provisions are inapplicable and irrelevant with regard to the sewage sludge management emergency regulation. Subsection 15(g), in our view, gives guidance to how the Secretary of State can determine whether an emergency exists IN THE ABSENCE OF clear legislative direction. However, because of the paragraph cited above, §20-5F-2b(b), the Legislature specifically found that this rule was required to be promulgated as an emergency.

Paragraph #13 is a complete contradiction. It is difficult to imagine how the Secretary of State could have made a determination that the rule doesn't qualify as an emergency when in stark and blaring contrast the Legislature has expressly found that "conditions warranting a rule to be promulgated as an emergency do exist..." The DEP is alleged thereby to have exceeded the scope of our statutory authority in carrying out the legislative mandate. Please explain how this is possible.

Paragraph 14: This final paragraph simply identifies your decision, notes its availability and again attributes the rule incorrectly to DNR.

Mr. Hechler, as you can see, the confusion and machinations surrounding this particular rule promulgation is epidemic. We are compelled to comply with the law as it is written. That is what we have done in filing and subsequently refiling the emergency rule. Likewise, you have certain statutory duties with regard to review and promulgation of emergency rules. I would hope that the errors and concerns pointed out in this letter will allow you to re-examine your decision to reject the emergency rule filing and allow the law to be followed to make the rule effective as an emergency rule, as the Legislature required.

In the upcoming legislative session the law can be changed or the rule can be changed. Prior to that time, I believe it is necessary for our two agencies of government to carry out our responsibilities lawfully.

I look forward to your reply.

Sincerely,

David C. Callaghan
Director

DCC/asb
cc: Delegate Brian A. Gallagher
Senator Joe Manchin, III
John Ranson
Renee Coe
Ann Spaner

KEN HECHLER
Secretary of State

MARY P. RATLIFF
Deputy Secretary of State

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Deputy Secretary of State

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Director, Corporations

(Plus all the volunteer help we can get)

FAX: (304) 558-0900

September 29, 1993

Shirley Mullett
Wetzel County Solid Waste Authority
200 North Street
Box 9
New Martinsville, WV 26155

Dear Shirley:

I received you letter requesting a copy of the refiled Sewage Sludge Management Regulations, Title 47, Series 38D. I am writing this letter to you at 3:30 p.m.

Despite what the letter dated September 20, 1993 from Richard Cooke said, this rule has not been refiled with this office either as an emergency rule or as a "revised" Agency Approved Rule.

I will keep your letter, and if these rules are refiled, I will notify you as soon as possible afterwards.

Please let me know if I can help in any other way.

Sincerely,

Judy Cooper

Judy Cooper, Director
Administrative Law Division

cc: Richard P. Cooke

WETZEL COUNTY SOLID WASTE AUTHORITY

200 North Street, Box 9, • New Martinsville, WV 26155 • Phone: (304) 455-5262

Administrative Law Division
Secretary of State
Capitol Bldg.
Charleston, WV 25305
Attention: Judy Cooper

September 27, 1993

Dear Ms. Cooper:

Enclosed please find a letter dated September 20, 1993 from Richard P. Cooke, Assistant Chief of the Solid Waste Management Section of the Office of Waste Management of the Division of Environmental Protection. In his letter, Mr. Cooke states that the proposed emegency regulations, Title 47 Series 38D "Sewage Sludge Management Regulations" have recently been resubmitted to the Secretary of State.

Under the Freedom of Information Act, could you please send our Authority a copy of the Title 47, Series 38D "Sewage Sludge Management Regulations" referred to in Mr. Cooke's letter that were resubmitted on or before September 20, 1993? Thank you for your anticipated co-operation in this matter.

Sincerely,

Shirley Mullett

Shirley Mullett
Coordinator
Wetzel County
Solid Waste Authority

DEPARTMENT OF COMMERCE, LABOR & ENVIRONMENTAL RESOURCES
DIVISION OF ENVIRONMENTAL PROTECTION
1356 Hansford Street
Charleston, WV 25301-1401

Gaston Caperton
Governor
John M. Ranson
Cabinet Secretary

David C. Callaghan
Director
Ann A. Spaner
Deputy Director

September 20, 1993

Ms. Shirley Mullett
Coordinator
Wetzel County Solid Waste Authority
200 North Street, Box 9
New Martinsville, West Virginia 26155

Dear Ms. Mullett:

This letter is in response to your written request dated September 15, 1993 and received by DEP/OWM on September 17, 1:49 pm 93, regarding the exact analytical procedure for the concept of "dry weight" as applied to sewage sludge.

As you may not be aware, the proposed emergency regulations, Title 47 Series 38D "Sewage Sludge Management Regulations", have recently been changed and resubmitted to the Secretary of State. The area of "wet" versus "dry" tons was changed in the resubmission.

Initially the agency attempted to assess the fee against actual tons (wet) but encountered significant opposition from the municipal facilities which would be forced to pay significant fees for land application. The revised fee for "dry" tons was an attempt to provide some relief to those facilities. In either event, the fee to be imposed is a land application fee, and is not intended to replace nor circumvent any fees which currently exist under solid waste laws. The agency requested clarification from the Attorney General on this issue and will now assess the fee on an actual per ton basis, not a dry ton basis.

If you have any other questions, please contact us.

With kindest regard,

Richard P. Cooke, Assistant Chief
Solid Waste Management Section
Office of Waste Management

RPC:gs

cc: G. Max Robertson, Chief, OWM
Bill Brannon, OWR
Clifton Browning, OWM

RESPONSIVENESS SUMMARY

COMMENTS GENERATED BY THE
PUBLICATION AND PUBLIC HEARING
FOR THE
DIVISION OF ENVIRONMENTAL PROTECTION'S
PROPOSED SEWAGE SLUDGE MANAGEMENT REGULATIONS
TITLE 47, SERIES 38D

On May 24, 1993, proposed Sewage Sludge Management Regulations were filed with the Secretary of State's Office. Subsequent to a thirty day review, a public hearing was held at the Office of Air Quality's Conference Room in Charleston, West Virginia. Attendees at the public hearing provided oral and written comments to the Division of Environmental Protection on the proposed regulations. Copies of the written comments, a transcript of the hearing and a list of attendees is attached.

Subsequent to the hearing, the Division of Environmental Protection reviewed the comments and made modifications to the proposed regulations which were deemed to be in keeping with the intent of Senate Bill 288 and within the authority of the agency. This document summarizes the comments, provides the agency's response to those comments and identifies changes made to the proposed regulations as a result.

Due to the number of written and oral comments, the agency has chosen to categorize the comments by the pertinent sections of the proposed regulations to which they refer, summarize the general intent of the specific comments, and respond accordingly. For example, many comments related to the **PERMITS REQUIRED** section. In the Responsiveness Summary the comments are summarized under the heading **"47-38D-4. PERMITS REQUIRED"**, followed by **"Comments"**, followed by **"Response"**.

The agency wishes to express its appreciation to the commentors for providing input to the regulatory process. It is hoped that the modifications made as a result of the many comments have resulted in an equitable, workable regulation that will respond to the Legislative mandate of establishing a statewide Sewage Sludge Management Program and be protective of the environment and the citizens of the State of West Virginia.

RESPONSIVENESS SUMMARY

FISCAL NOTE

COMMENTS - Several commentors noted that the proposed regulations were submitted with a fiscal note which indicated that the regulations would result in No Change, implying that there would be no economic impact to the agency, the citizens or the affected community as a result of the regulations. Many of the comments related to this issue were from West Virginia municipalities with Publicly Owned Treatment Works which have been implementing the agency's existing Sewage Sludge Management Program. In addition to the fees to be assessed for land application of sewage sludge contained in the proposed regulations, the commentors expressed concern about the design specifications required for sewage sludge processing facilities, specifically the liner requirements, which were felt to be excessive and cost prohibitive if applied to the state's POTW's. Other comments expressed concern that to effectively implement the provisions of any sludge management program, the agency must have adequate resources.

RESPONSE - The agency recognizes that the Fiscal Note does not accurately reflect the economic impact of the implementation of the proposed regulations. Fee requirements, which at the time of submittal were still being developed by the agency, do indeed represent an economic impact to the POTW's and the citizens served by those facilities. The agency has operated a sewage sludge management program at the Office of Water Resources for almost five years with insufficient funding and realizes that the provisions of the new law and these regulations represent a substantial economic impact. The design and operational requirements for sewage sludge processing facilities would also require a significant expenditure to achieve compliance on the part of the state's POTW's. However, with the exception of the fee requirements for land application, the agency felt at the time of submittal that the federal regulations, 40CFR, Part 503, which are currently in effect, already imposed an economic impact on the affected community which would not be changed substantially by the implementation of the West Virginia Sewage Sludge Management Regulations. Due to the comments received on the regulations and the agency's response, the land application fees have been revised and will represent much less of an economic impact than previously expected. The fees generated will be used to support the agency's implementation of the program. Finally, the liner requirements have been modified, see response to "47-38D-3.0 Standards for Use, Disposal and Processing of Sewage Sludge".

APPLICABILITY OF 40 CFR, PART 503

COMMENT - Many commentors questioned the "wholesale" incorporation of federal 503 regulations. Most felt that the intent of Senate Bill 288 went beyond the requirements of 503 and that to adopt the federal regulations, in total, would be contradictory and in noncompliance with the state law. In general, the specific concerns related to this comment involved 1) the intent of 288 to prohibit dedicated sewage sludge disposal sites, 2) background metal levels in recipient soils, and 3) contradictory reporting requirements. Some commentors pointed out that the legislation specifically intended to prevent West Virginia from becoming a sludge repository for the surrounding states who have recognized the inadequacies of 503 and have established more stringent rules than the federal regulations. Some commentors suggested the current proposed regulations be completely rewritten, using 503 regulations as a guide, to bring them into compliance with the intent of 288.

RESPONSE - Federal sewage sludge regulations, 40 CFR, Part 503, are currently in effect nationally. All producers and importers of sewage sludge are required to comply with the provisions of those regulations. The 503 regulations were developed over a period of at least 5 years with opportunity for public input on several occasions. A significant amount of scientific research went into the development of the loading rates, analytical testing requirements, etc.; research that the State of West Virginia cannot afford to duplicate. At this time, the federal government, specifically the U.S. Environmental Protection Agency, retains primacy for implementation of the 503 regulations for the states. The states have the opportunity to assume primacy if the federal government approves the state's primacy delegation request. The State of West Virginia is one of only a handful of states nationally which has expressed interest in assuming primacy for the federal program. Our interest is based on the fact that the existing state Sewage Sludge Management Program has been developed almost concurrently, and in concert, with many of the 503 criteria, specifically the land application components. In addition, the state recognizes that while it now has the authority to develop and manage sewage sludge regulations under state law, the federal regulations will also be applicable if the state does not have primacy for the program. The presence of two possibly conflicting authorities regulating the same community would be cumbersome at best. The EPA is currently working with the Division of Environmental Protection on preparation of a primacy delegation package which must be reflective of 503 regulations, at a minimum. As in any primacy situation, the state can be more restrictive than the federal law if it so chooses. It cannot, however, be less restrictive.

In response to the three primary concerns expressed by the commentors, listed above, the agency has modified the regulations to address those concerns. See responses to "47-38D-3.0 Standards for Use, Disposal and Processing of Sewage Sludge.", and "47-38D-5. General, Processing Facility, and Land Application Permit Requirements." With the modifications discussed in those responses and made in the regulations, the agency feels that the three primary concerns of the commentors have been accomodated to the extent that the assumption of primacy for the federal program is still a feasible option.

In regards to the issue of West Virginia becoming the repository for sludge in the eastern seaboard states, West Virginia, nor any state, may prohibit the import of sewage sludge. The attempts and subsequent inability of the state to prohibit out-of-state garbage should be evidence of that. The state can, however, manage and regulate the disposal, processing and land application of sewage sludge from whatever source to insure that the ultimate disposition is in keeping with protecting the environment and citizenry of the state. The reliance on the pertinent provisions of 40 CFR, Part 503, the addition of stricter criteria under Senate Bill 288 and the assumption of state primacy for the federal program should result in a protective management program.

47-38D-2.0 DEFINITIONS

COMMENTS - Many commentors expressed concern over several definitions which were either too restrictive or, conversely, did not go far enough. Several questioned the classes of sewage sludge processing facilities stating that they were contradictory to the existing definitions in solid waste law. Others questioned the interpretation of the definitions for "Commercial Solid Waste Facility" and "Source Separated Materials" and the applicability to publicly owned treatment works. "Pretreatment Publicly Owned Treatment Works" was cited as being unclear in regard to the remediation fee.

RESPONSE - In general, the agency response to the majority of the comments related to the definition section of the regulations is that the definitions included are statutory definitions, for the most part, and cannot be changed by the regulations. For example, the definitions cited above for "Commercial Solid Waste Facility" and "Source Separated Materials" are in Senate Bill 288. The concerns expressed by the commentors on those two specific definitions, however, can be answered by acknowledging that although the strict interpretation of both definitions does include POTW's, the legislation itself provided relief to POTW's with National Pollutant Discharge Elimination (NPDES) permits from the Division under Chapter 20, Article 5A. The acceptance, therefore, of domestic sewage sludge from non-POTW sources, such as septage haulers and small package plants, would not require the POTW to obtain a separate solid waste facility permit. For those definitions that were created for these regulations, and that were questioned by the commentors, the following explanations and modifications are offered.

"Class A facility" - This definition is included in the statute and is also included in the solid waste statute. The apparent intent of including it in Senate Bill 288 was to maintain control over the siting and volume limitations of the sewage sludge processing facility. As the modifications made in "47-38D-4.0" require sewage sludge processing facilities to adhere to all pertinent regulations of the solid waste law (including siting and limitations on volume), and the term itself is not used in the sewage sludge regulations elsewhere, this definition has been deleted.

"Class A Sewage Sludge Processing Facility" - This definition was created for the regulations but in light of the modifications to "47-38D-4.0" is no longer necessary and has been deleted.

"Class B Sewage Sludge Processing Facility" - Deleted.

"Class C Sewage Sludge Processing Facility" - Deleted.

"Pretreatment Publicly Owned Treatment Works" - To provide further clarification of the term "pretreatment" the definition has been modified. The agency's intent in distinguishing between sewage sludge generated at pretreatment facilities and nonpretreatment facilities was to address the intent of the legislation in regard to quality of the sludge. The agency considers sewage sludges generated at pretreatment POTW's to have the potential to be higher in metals, for example, because of the presence of industrial wastes in the waste stream. While it is true that pretreatment requirements presumably result in a "cleaner" effluent, the potential for the facility to have higher concentrations of industrial pollutants is greater than in those facilities which are not serving industrial users.

"Source Separated Organic Waste" - This definition was created by these regulations and has been amended to exclude pressure-treated wood waste.

"Stabilization" - This definition has been amended to reflect concerns expressed by commentors for the control pathogens, toxins and vectors.

47-38D-3.0. STANDARDS FOR USE, DISPOSAL AND PROCESSING OF SEWAGE SLUDGE

COMMENTS - Predominant among the comments received on this section was the liner requirements for sewage sludge processing facilities followed closely by concerns relative to the land application siting restrictions and location standards. The incorporation by reference of 40 CFR, Part 503, was also questioned by many commentors.

RESPONSE - As discussed earlier, the incorporation by reference of 40 CFR, Part 503 generated significant concern. The primary concerns were the failure to prohibit dedicated sewage sludge disposal sites, the lack of response to the background metal levels in recipient soils, and the contradictory reporting requirements of Senate Bill 288 versus 503. While the agency feels it is necessary to maintain the incorporation by reference provisions of 47-38D-3.1., it has amended that section to respond, in part, to the comments received. By excluding 503.10(b)(1) from the incorporation provision the agency can impose the same restrictions on all sewage sludge, i.e. monitoring, reporting etc. 503.10(b)(1) exempted "clean" sludge from many of the monitoring and reporting requirements. While this may prove to be a disincentive for producers to achieve "clean" sludge in their process, it will provide protection from potentially exceeding the maximum background metals levels in recipient soils. It also allows more control for the agency in the management of land application of sewage sludge. In regard to the maximum concentration of metals issue, section 3.2.2 has also been amended. In addition, 503.20 through 503.29 have been excluded. These sections referenced the dedicated disposal site issue. The agency feels that the exclusion of these sections and defining such facilities as landfills subject to the applicable requirements of Title 47, Series 38 should address the concerns expressed.

The contradictory reporting requirements have been addressed by the modification of section 5.1.1.b. See also response to "47-38D-5.0"

The siting restrictions and location standards, section 3.2, elicited many suggestions from commentors on improvements. The agency has been operating the West Virginia Sewage Sludge Management Program for over five years using the criteria included in the regulations without significant problems. The criteria were developed jointly with the West Virginia University Cooperative Extension Service which has access to technical expertise from across the world. The U.S. Environmental Protection Agency has also accepted the criteria as being

protective of the environment. Some of the suggestions provided, given the terrain of West Virginia, would have prohibited the land application of sewage sludge in the state. The agency did make the following modifications in response to comments:

3.2.1.b. - Added "streams" to list of surface waters.

3.2.1.h. - Added "unless the pH is adjusted to 6.2 or greater." Currently, the land application site must have lime or other acceptable amendments added to raise the pH to at least 6.2. It has been determined by the agency, through the West Virginia Sewage Sludge Program, that the pH must be at least 6.2 to prevent nitrate leaching.

3.2.1.k. - Changed the requirement for soil over bedrock from 20" to 6". Commentors noted that very few soils in West Virginia had a depth to bedrock or impervious pan at much less than 20" and that this would limit the land available for application. It was also noted that most land with at least 20" of soil over bedrock was in the flood plain.

3.2.2. - This section has been amended to add language that establishes the cumulative loading rates identified in 503 as the minimum for protecting the maximum soil concentrations in addition to requiring soil testing procedures developed by the agency. While the agency has yet to determine if adequate soil testing is available that will address the concerns expressed, it feels that this provision will allow the agency to require such testing when it is identified or developed.

3.2.4. - This new section was added to address the concerns expressed over storage of sewage sludge. Storage of sludge at sewage sludge processing facilities will be addressed by the permit requirements. Prolonged storage at the sewage sludge processing facility was a concern expressed by commentors which is addressed by an amendment to 3.3.1.a. Storage of sludge at land application sites, however, was not addressed specifically for situations which may require the applicant to store the material on-site until it is possible to land apply. Inclement weather, for example, may prohibit the application during winter months. A provision for storage for up to three months has therefore been added. Appropriate application equipment may not be available immediately upon delivery to the site, but should not require more than one week for such arrangements to be made. In-tank storage of septage has been provided for no more than three days.

3.2.5. - A provision prohibiting application at night has been added in response to comments.

3.3.1.a. - An amendment has been added regarding storage. See response to 3.2.4.

3.3.1.d. - Liner requirements. This provision elicited many comments, predominantly from the POTW's, which expressed concern over the cost of compliance. The agency has amended this section to reference the authorities of the Groundwater Protection Act, Chapter 20, Article 5M. The Act requires groundwater protection practices which are protective of the groundwater. Liners or other protection measures shall be required as per the regulations developed under that Act.

3.4.1. - Amended to delete reference to Solid Waste Management Regulations in keeping with the intent of 3.3.1.d. above.

3.6. - Amended to delete "other materials that have been approved by the chief prior to disposal". Added "prior" before written approval in last sentence. The agency agrees that there is a degree of uncertainty in the nature and potential quality of "other materials". It does, however, feel that alternative methods may be acceptable and reserves the ability to allow other options with prior written approval from the chief.

47-38D-4.0. PERMITS REQUIRED

COMMENTS - Several commentors expressed uncertainty as to the acceptability of providing for a modification to a solid waste permit for sewage sludge processing facilities located on an existing landfill (facility permitted by a solid waste permit). Comments related primarily to the type of modification to be allowed (major or minor). Other commentors questioned the applicability of the the permit requirement under Chapter 20, 5A to only POTW's and not to other regulated domestic or municipal treatment facilities. The coverage of the regional map delineating the "service area" was questioned. Storage of finished product at the sewage sludge processing facility was a point of concern. Public input into the siting of sewage sludge processing facilities and information relative to the land application sites was suggested.

RESPONSE - In response to the concerns expressed relative to the modification of a solid waste permit to provide for sewage sludge processing facilities, the agency has deleted section 4.1.3. Under these regulations, new sewage sludge processing facilities must obtain a separate permit, subject to the permit issuance procedures of Title 47, Series 38. Those requirements include all provisions which are currently applicable to landfills, i.e. Solid Waste Authority approvals, public input, bonding, etc., except for liner requirements (see modification to 3.3.1.d.). The question of applicability of these regulations to domestic or municipal treatment facilities, other than POTW's, is valid. While the Legislature did not specifically include these facilities in the language related to POTW's, it would seem appropriate to address sewage sludge generated by such facilities in the same manner. The agency intends to incorporate sewage sludge management modifications in all non-industrial NPDES permits.

Land Application Permit - While the legislation and 40 CFR, Part 503, specifically provide for land application, the agency did not include a permit requirement for land application in section 4.1. Although land application permit requirements are delineated under section 4.2.3., there is no provision to require such a permit in section 4.1. To avoid the necessity of requiring a POTW to obtain both a modification to its NPDES permit and a land application permit, the modification will incorporate those requirements delineated in section 4.2.3. For all other producers or importers land applying sewage sludge, a land application permit will be required. Included in the permit issuance procedures of both Titles 46, Series 2 and 47, Series 38 are opportunities for public input. Such procedures will address commentors concerns about having input into location of sewage sludge processing facilities as well as land application sites.

The requirement in 4.2.2.a.A. for a regional map of the entire service area of the proposed facility is taken from the solid waste regulations and is intended to provide information on the area from which the sewage sludge processing facility will be accepting sewage sludge for processing. While it should indicate the POTW's from which the sewage sludge is generated, it is not intended to require a map of collection systems for POTW's in other states. The map required by this section may cover a multi-state area.

Storage of sewage sludge at the land application site has been addressed, see response to 3.2.4. Storage of the finished product is addressed to some degree in 4.2.2.c.E. The sewage sludge processing facility is required to comply with the operational design requirements of section 3.3. These include provisions for the placement of sewage sludge, intermediate and final products in areas which are protective of groundwater impacts as per the requirements of the Groundwater Protection Act. The agency does agree that a time period should be identified which would prevent a sewage sludge processing facility from storing sewage sludge for an indeterminate time. Section 3.3.1.a. has been amended to reflect a one year storage period as suggested by commentors.

Other modifications made to the regulations include:

4.2.2. - Changed the first sentence to read "All applicants for permits for sewage sludge processing facilities". Clarification.

4.2.3.j. - Amended to clarify description of methods to be used for land application.

4.2.3.n. - Amended to remove the words "by the applicant". The applicant will be subject to the terms of the agreement in 4.2.3.d., as will the landowner. Responsibility for the maintenance of the pH for at least 5 years would more properly be the landowner's accepting the sewage sludge, however the agreement will determine responsibility. It is necessary to maintain the pH level to prevent metals and nitrate leaching.

47-38D-5.0. GENERAL, PROCESSING FACILITY, AND LAND APPLICATION PERMIT REQUIREMENTS

COMMENTS - Several commentors suggested that the sewage sludge regulations did not include enforcement provisions. One commentor pointed out that the Legislature had recently passed legislation, in effect, prohibiting incineration of solid waste. Since sewage sludge is defined as solid waste the commentor suggested that the agency extend that intent to these regulations. The general comments relating to contradictory reporting requirements discussed earlier in this summary related to provisions in the permit requirements section of the regulations and will be responded to as described below.

RESPONSE - Senate Bill 288 amended Chapter 20, Article 5F, Section 2. The enforcement provisions of Chapter 20, Article 5F, as well as those enforcement provisions of Chapter 20, Article 5A related to WV/NPDES permits and water quality standards violations are applicable to the Sewage Sludge Management Regulations. Additional enforcement authorities are not deemed necessary by the agency.

The comment related to incineration has merit. The agency agrees that the intent of the Legislature could be well served by eliminating the incineration provisions of the sewage sludge management regulations and has therefore deleted section 5.4. Those sewage sludge incineration facilities currently in existence will, however, be subject to the applicable provisions of 40 CFR, Part 503. By maintaining the incorporation provisions in section 3.1. the agency will provide the Office of Air Quality with the ability to modify the existing incineration permits as necessary to meet the requirements of 503.

The agency recognizes the reporting requirements of 503 are not adequate to address the intent of Senate Bill 288. The agency has therefore modified section 5.1.1.b. to require reporting of the analyses conducted on the sewage sludge. The reporting frequency shall be the same as the monitoring frequency of Appendix A.

Other modifications made as the result of comments include:

5.3. - Amended to change reference from solid waste facility permit to land application permit.

47-38D-6.0. FEE REQUIREMENTS

COMMENTS - Of all the provisions the Sewage Sludge Management Regulations, this section generated, by far, the most comments. Two primary concerns predominated among the comments received. First, almost all commentors expressed dissatisfaction with the assessment of fees against wet tons. Most felt that the assessment would be more equitable against dry tonnage. The second most prevalent comment related to the the absence of the bonding provision of Senate Bill 288. While most understood the agency's alternative to the bonding requirement, the remediation fee, some expressed concern that it did not adequately address the potential adverse impact of improper application of sewage sludge. Other comments pertinent to this section related to management and disposition of the fees collected, authority for collection of fees, and concern over a potential loophole in section 6.1. which could inhibit fee collection.

RESPONSE - In order to provide funding support for the implementation of the Sewage Sludge Management Regulations, the Legislature included a land application fee in Senate Bill 288. This fee "to be paid by the producer or importer" is to "be levied on the land application of sewage sludge, to be collected at a per ton rate, sufficient to cover the costs of the sewage sludge management program." The authority for collection of a land application fee is therefore well established. Further, the fees are to be deposited in the "water quality management fund", a special revenue fund established under Chapter 20, Article 5A, Section 6a. The Office of Water Resources currently uses this fund to cover the costs associated with the NPDES program. Management and accounting procedures associated with this fund are well established.

While not expressed in these regulations, permit fees are required for solid waste facilities under the authorities of the solid waste law and will be applicable to sewage sludge processing facilities and landfills. Solid waste permit fees will not, however, be applied to land application permits or NPDES permits. The bonding requirements for solid waste facilities also apply to sewage sludge processing facilities but not to land application or NPDES facilities. See modifications to regulations 4.1.5, 4.1.6., and 4.1.7.

Section 6.3.3. was amended to remove tipping fees from sewage sludge processing facilities and to remove the provision for deposit of fees collected in only the Solid Waste Enforcement Fund.

The agency acknowledges the comments related to the wet versus dry ton issue and has revised sections 6.3.1. and 6.3.2. to reflect assessment of the land application and remediation fees against dry tons. In explanation of the original intent to collect fees against wet tonnage, the agency reviewed land application statistics from previous years to estimate the potential amount of sewage sludge (in wet tons) which may be anticipated under these regulations. Those statistics included some land application from out-of-state sources but the majority was from in-state POTW's, resulting in a more accurate but fairly conservative estimate. It then developed an estimate of the resources it would need to implement the new regulations, as initially proposed. These calculations resulted in the per ton assessment fee included in the regulations. With modifications made as a result of the public comments and anticipation that the original estimates of imported sludge for land application were probably low in relation to what may eventually be realized, the agency agrees that the assessment should more properly be against dry tons but is concerned that the fee may need to be raised to reflect this very significant difference (roughly 80% less). Obviously, the change to dry tons will produce significantly less revenue than wet tons. The agency recognizes the impact the fee will have on the POTW's and will reevaluate its resource requirements in light of this reduction. If the fees generated do not adequately support the program, the agency shall revisit the fee assessment in the future.

While Senate Bill 288 provided authority for bonding of producers and importers of sewage sludge to cover the cost of future environmental remediation, it was determined by the agency that such a requirement would be unmanageable if the intent was to cover each individual land application site. Very few bonding requirements provide sufficient funds to effectively remediate detrimental impacts. It was therefore decided that the "... or similar instrument" clause included in the legislation may be a more feasible solution to the bonding requirement. There is a precedent for a remediation fee in the Groundwater Protection Act which requires collection of a fee to be used to remediate groundwater impacts. While Senate Bill 288 did not specifically include such a provision, it provided the intent, the mechanism and the fund in which to deposit it. Remediation fees will be deposited in the water quality management fund and accumulated until the need arises for their use. The agency will develop regulations in the near future for the use of the remediation fees, including management and accounting procedures to insure that the funds are used as intended. Those regulations will also include provisions regarding disposition of remediation funds and a cap on collections.

Use of the remediation fee was also intended to address the issue of assessing fees according to the quality of sewage sludge. The remediation fee is higher for sewage sludge generated at pretreatment publicly owned treatment works. Generally, such facilities have the potential to produce sludges with higher levels of contaminants that non-pretreatment facilities. For more detail on the agency's intent see response to section 47-38D-2.0. Definitions - "Pretreatment Publicly Owned Treatment Works".

Section 6.1. has been modified to reflect concerns expressed by commentors that the existing language could exempt permitees subject to other permit fees from paying the land application fees. While that point is moot for solid waste facilities, see modifications to section 4.1., it may be applicable to modifications of WV/NPDES permits. In response, the agency has modified this section to read "Any producer or importer of sewage sludge intended for land application shall be subject to...".

ATTENDANCE LIST
PUBLIC HEARING
JUNE 24, 1993

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Max Robertson:

I am going to just make a brief overview of the regulations before you. The purpose of these regulations are to implement a program for the efficient management of sewage sludge in the State of West Virginia. These regulations have been promulgated by order of the Legislature through Senate Bill 288 which was passed April 10, 1993.

These regulations establish requirements for obtaining permits for all facilities and activities which generate, process or dispose of sewage sludge. Included are requirements and standards for the use, disposal and processing of sewage sludge encompassing incorporation of 40 CFR Federal 503 citing restrictions and location standards for land application, facility design and operations, leachate management, storm water management, operating and maintenance manual for monitoring, sampling and analyzing sewage sludge and the finished compost product, record-keeping and reporting and, of course, assessment of fees for disposal, land application and environmental remediation. That's a brief summary.

Helen Burgess:

My name is Helen Burgess and I'm from Wetzel County. Six years ago in May, a man came to Charleston with his attorney from Pennsylvania. Pasquale Mascaro was his name and Bill Fox is his attorney. All of you in Charleston know him well. He's still coming here. He's still getting what he wants. We fought him six years about garbage and now it's sludge that we're fighting. Next year what is it going to be?

To put it mildly, I'm outraged what you're allowing here in Charleston. Nobody else is allowing it but you folks in Charleston to happen to our State of West Virginia. We're known all over the country as dumb hillbillies, people that don't care, people suffer from apathy and this is not true. We do care and we're not going to let you do it to our state.

This is an article that was sent to me from Charleston here. It was out of the Charleston Gazette, May 23, 1993, "Ex-Caperton Aide Rejects Waste Job". Does that tell you something? This Mascaro wanted him to go and use his, I guess, influence with the Public Service Commission. That tells me something. Something still stinks here. I've said it for six years and I'm going to keep on till I get to the bottom of it.

We're not going to allow him to do this. Have anyone of you gone to New York for all of this sludge that's coming to Wetzel

and Brooke County? The DEP director told him to come down here and bring it all in here without paying the state one penny and put it on the ground.

Have you ever read what's in sludge, what it causes? I've got it here and what it will cause, all the illnesses. The State of New York bothered. That's why it's coming to West Virginia. They think we don't care that we will suffer from hepatitis and all the diseases that comes from it. The State of Texas has come to the same conclusion what is in sludge. And we're not going to allow it. We are not going to allow it. I hope this message gets across.

I have already contacted the Justice Department. Let me read you the things here. The term sludge means solid waste, semi-solid or liquid waste generated from a municipal, commercial, industrial waste water treatment plant, water supply treatment plant. The term solid waste means any garbage, refuse, sludge from a waste treatment plant, water treatment plant or air pollution control facility and other discarded material resulting from industrial, commercial, mining and etc.

Let me read you another article. This came from Texas and it's a thorough explanation of it. This is from an assembly that introduced the bill in the State of New York and this is what it says, "Sludge means any solid, semi-solid, or liquid waste generated from a waste water treatment plant, water supply

treatment plant or air pollution control facility but does not include the treated (??) from a waste water treatment plant or the food processing waste generated from a food processing establishment. Septige means the contents of a septic tank, cesspool or other individual sewage treatment facility which receives domestic sewage waste. Sewage sludge means the accumulated semi-solids or solids resulting from treatment or waste waters from publicly or privately owned or operated sewage treatment plants." This is from New York. That's why they are sending it to West Virginia, folks. They don't want it dumped on their ground in New York. And, in fact, they're not going to because it's going to ruin their agriculture ground there.

I've got some more articles here that I would like to read to you about what diseases it causes. Domestic sewage is waste and waste water from humans or from household operations that are discharged to or otherwise enter treatment works. Sewage sludge is a solid, semi-solid or liquid residue removed during treatment. Sewage sludge shall not be applied to the land. If the application is sewage sludge, would restrict the flow of base water, would reduce the temporary water storage capacity flood plane or would pose a hazard to human health, wildlife or land or water resource because of sewage sludge in the water run-off from the flood base.

Wash-out of sewage sludge shall not pose a hazard to human health, wildlife or land or water resources. There is every

reason to assume that sewage sludge applied to frozen snow-covered or flood lands would readily be transported off the site with the first melt or rainfall into the river or stream.

And, folks, this time it's been dumped on the Blake Farm in Wetzel County and it was permitted by Charleston. That's who is letting them do this. Pathogenic diseases include cholera, ateric(??) fever, meningitis, carditis, central nervous system involvement, pneumonia, infectious hepatitis. This all comes out of sludge. The benefits of using sewage sludge to improve land productivity are substantial. However, if sewage sludge containing high levels of pathogenic organisms, viruses, bacteria or high concentrations of pollutants is improperly handled, the sludge could contaminate the soil, water, crops, livestock, fish and shell fish. Folks, this comes from New York. That's why they don't want it up there. Ms. Ballard, that's why it's coming here. Here to West Virginia. They don't want it there. We don't want it here either. We don't want to be their toilet and we're not going to let it be their toilet.

The major human health environment and aesthetic factors of concern in the land application of sewage sludge are related to pathogens, metals and persistent organic chemicals. That won't shut me up. One important limitation of the assessment of exposure through food is the projected effects estimated only for sewage sludge applied in a single year. I could go on and on. I could tell you what the EPA says about it.

In fact, I want to read just a little bit what the EPA says about it and then I want to read an open letter from my husband and I to you. I'll read this. It's an open letter to the citizens of West Virginia and their elected government officials at the local, state and federal level regarding out-of-state garbage and sludge. "Why is it that good, just, right and logic seems to always give way to greed, injustice, wrong and stupidity? The pure indignity of the matter begs for reasonable resolution. I'm going to take my garbage and dump it in your yard. No, you emphatically say. You can't do that. You're violating my property, my birthright, my ecology and my natural resources. You must dispose of your own garbage in your own way and you cannot and will not violate my land." Certainly a reasonable dumper would agree with the dumpee and, in fact, personal property law would most likely support the dumpee's position and enforce the requirement that the dumper dump his trash elsewhere. Makes sense, seems reasonable and the outcome described is supported the logic, justice and good common sense.

Why is it then that when we elevate this illustration to the state level it becomes okay for one state to dump it's garbage in another state? How can a citizen or a government official of West Virginia support the hills and valleys of this incredibly beautiful landscape being defiled by the trash and sludge of our sister state? Shame on you.

Of equal concern is the mentality of those in other states who think it's okay to dump one state's garbage in another state. Are the Poconos of Pennsylvania more pristine that the hills of West Virginia? Let's haul garbage to the Poconos, the (??), the Alleghenys, the Catskills. Let's defile western Maryland, southern New Jersey, the Berkshires of Massachusetts, the Pikes of New Hampshire and the Greens of Vermont. No, you say. You can't do that because you would violate the natural beauty. But come to West Virginia. Why is that? Interestingly, it is not the government of any locality or state that is sending garbage to West Virginia. No, it's the free enterprise that has turned West Virginia into the toilet bowl of the east.

The greedy free enterprise set and stupid West Virginia politicians create a marriage made in heaven for the greedy free enterprise set. The free enterprise set is greedy because all they are about is making money and very little of it is staying here. They charge municipalities and the congested northeast corridor exuberant fees to dispose of garbage than other wastes. Some of it is hazardous. There is more waste created than can be disposed of locally at great expense. The stringent ecological requirements and high tipping fees or they can haul the garbage and dump it elsewhere. Someplace say where the tipping fees are peanuts. And West Virginia's is peanuts.

The ecological consequences are of no concern and where I

get little or no resistance from government. And they're not getting resistance from you-all down here. Bingo! I'll dump my garbage in West Virginia. They welcome me, charge me very little and have no mechanism of surveillance or audit, and I know that's a fact because I surveilled them for almost six years, to monitor my compliance with any guidelines that might be in place.

Can you imagine how the mind of the free enterprise set must be bobbled at the thought? Imagine, paying Wetzel County, West Virginia, 50 cents per ton to fill it's landfill with garbage and sludge and other waste from other states. Just how stupid can the government of West Virginia be to allow such a indignity? If you're going to be the toilet for the northeast, at least have the dignity and business acumen to be an expensive toilet. Participate in the free enterprise system. Make money. Get your share. Be smart. Play the game. Match greed with greed.

Does anyone ever stop to think how the free enterprise set can afford to buy trucks, hire drivers, pay slick lawyers and donate significant sums of money to local charitable causes all in the name of dumping garbage in West Virginia instead of New York? There is a lot of money in garbage and the free enterprise set is growing rich at the expense of the people of West Virginia.

Wake up, West Virginians. Demand your share of the pie. Either get your share in an economic share or protect your

birthright, your ecology and your natural beauty. Do not allow yourselves to be had. And that's what we're being by those who care nothing about you or your state. Let every citizen be heard and let the message be loud and clear. We will not be fooled by the free enterprise set. Either our state gets rich from your stinking garbage or you haul it back from whence it comes. Thank you.

David Grubb:

Thank you very much. I always try to be very precise in my presentation. My name is David Grubb. May it please the division, I am an attorney licensed to practice law in West Virginia. I also serve as the Executive Director of the 20,000 member West Virginia Citizen Action Group and I'm also the junior senator from the 8th Senatorial District representing Kanawha County.

I would like to at the outset submit our written comments and as I do so, there are 13 pages of fairly involved comments and I would like to publicly thank our summer intern, actually a longer term intern, staff intern, Jed Priddy, for his work on those regulations. A great deal of research went into them. Both looking into the federal regulations, as well as the state statute, the state code and other states' handling of sewage sludge management provisions.

At the offset I would just like to state that I'm here to try to set the tone for what will be many comments that follow. There are some severe concerns about these proposed regulations. Concerns that generally fall into one or two major areas. The most important area I feel comes under the heading of to what extent these regulations actually carry out the intent of Senate Bill 288. And I'm concerned that in provision after provision, there are either direct conflicts or sufficient ambiguities that

need to be clarified and that is the substance of what most of our comments are directed toward.

I think one of our first concerns is the wholesale incorporation of the Federal 503 Regulations by reference into these proposed regulations. Specifically, we feel like it creates a number of problems because there is specific language that the Legislature placed in Senate Bill 288 that at times is in conflict with the regulations in 208. Either we would further them or we did something totally different then the Federal 503 Regulations. And the problem is that when the 503 Regulations are incorporated by reference it creates some kind of confusion about many of these provisions. And let me give you some examples.

One of the concerns is how we deal with dedicated sewage sludge disposal sites. In 288 we prescribe them. However, in the Federal 503 Regulations they are permitted. 288 also mandates, and I believe that Senator Macnaughtan will be dealing with this in much greater detail, mandates the maximum levels in land applied sewage sludge be compatible with background metals levels in the recipient soil. 503 explicitly ignores these kinds of background levels. 288 enumerates a long list of reporting requirements. A few of which are really present in the 503 Regulations.

So we think it's important that the division take the

comments that we have provided and that others will provide, go back and rewrite these regulations so that you look at 503 not as something to be incorporated by reference, but as a starting point. Use 503 but then make the changes to make sure that it is, in fact, consistent with the intent of the Legislature.

And let me underscore one point, too. As the Vice Chairman of Legislative Rule-Making Review, we got into some trouble this year. I'm not talking about the supreme court case. I'm talking about the timbering regulations in the timbering law. As you know, when we came to the point of passing that regulation package, it occurred to us that the rule that was proposed promulgated, came through Rule-Making Review, actually exceeded the scope of the statute. For that reason we ended up taking out that timbering language. I'm specifically referring to -- well, I'm sure you know the language I'm referring to, but the point is that we are as a committee going to be much more careful in the future in how we deal with proposed regulations, the extent to which they exceed the scope, the extent to which they are consistent with the Act. And if the language is inconsistent or if it exceeds the scope, we absolutely are not going to permit that regulation to go forward. We are going to require it either to be modified or we're going to reject it outright.

I believe that Senator Macnaughtan who also serves on the committee with me will concur on that opinion and we've talked to both the chairmen of the committee, both the house chairman and

the senate chairman, and they agree that we have to be very careful in what kinds of regulations we allow to go through the committee. So we're going to be very careful on that. And that's, in a nutshell, the major concern that we have is that these regulations exceed the scope or are in direct conflict.

I'd just like to say that one other concern we have in reading through the regulations, there's a lot of others, but one of the concerns we have is the dealing of the POTW's. If you look at the legislative history, it was fairly clear on both the house side and the senate side that we wanted to try to do everything we could to make sure that the POTW's were not damaged, harmed, hurt in any way by these regulations.

Unfortunately, the way the regulations came out we feel that there is some severe hardship created on the POTW's and we would encourage the division to revise the regulations to make sure that we do in fact treat the POTW's fairly. I think there's a way to do it within the rational scheme of the legislation that will allow us to let them do what they do well and not actually treat the problem, which the regulations and the law, I think, originally intended to address. Thank you very much.

Herb Rice:

Thank you. I have some comments here which I'm going to hand in. I'll just cover a couple of the high points. I have three points of general interest that I'd like to mention here. The first one is, which I'll read from my written comments, Senate Bill 288, now West Virginia Code Section 25F-2B, specifically instructs the director to promulgate rules to regulate "the efficient and orderly regulation of sewage sludge". I therefore object to the proposal inclusion of composting of mixed waste, for example, as proposed in Section 1.1.1 and all subsequent comments to that.

Furthermore, I suggest that the composting of mixed waste be expressly prohibited at least at this time. Mixed waste is too general a term and it's inclusion is sure to promote abuses by a type of unscrupulous operators we have all come to know.

My second general objection is I get the impression on reading this big volume of information that when it comes to disposing of sludge or compost of sludge, there is not enough differentiation made between composted sludge and unprocessed sludge. And I think the two are significantly different, for example, in pathogens and odor they create and things like that. To my reading of the regulations there is not enough discrimination between how the two are going to be handled.

I think the one is why sludge possibly requires more careful regulation properly composted sludge. And my comments here, I have attached a copy of an article from Citizen's Clearinghouse of Hazardous Waste. I guess you're going to get a lot of articles along this line reviewing some of the objections to using to composting a mixed solid waste. My biggest objection is what the senator just mentioned. I don't think there's many people in the state anymore that think that the solid waste management section, in particular of the now DEP, is really that much interested in the welfare of the citizens. I think they're more interested in the financial welfare of the landfill owners.

I live in Tyler County but our immediate concern in that area is the Wetzel County landfill. We've been fighting the city for six years now. For the first six months we thought the then DNR was going to be on our side and protect us from these outside interests that were intent at that time, but dumped 48,000 tons of outside trash in our little landfill. We now know that's not the case. We do not consider the solid waste section of the DEP to be interested in us as much as they are interested in the landfill owners. At least some landfill owners.

You people are the servants of the people. We worked hard to get this legislation passed and I resent very much that these rules are, to me, an obvious attempt to circumvent the regulations. You are not the czar in serena(??) of sludge who

are going to impose your wishes on the peasants. The peasants will wise up. You know what happened to the last czar in serena(??). But hopefully it won't be that violent this time.

But you people in these agencies that are supposed to enforce the regulations, we are the boss. You do what we want you to do. That's what you're hired to do. You don't have you're own little agenda and go off and do it. Thank you.

Senator Macnaughtan:

Since I only have three minutes I'd like to try to keep my comments brief, try not to reiterate too much what everyone else is already saying. I have given you a copy of four pages of material which deals with 3.2.2.2 of Title 47 Series 38D of the sewage sludge management regulations. And in those regulations it sort of glibly refers to the maximum cumulative rates in 503 and that's what should be applied to the soil and so on.

In my mind that was not satisfactory. So what I have done is given you an example of one procedure for determining how much metals are in the soil, how much metals are in the sludge and, therefore, how much sludge you can apply to the land before you exceed limits which have been set in the 503 Regulations. I think these are self-explanatory and so I'll just make a couple of comments on them to save time. The whole purpose of the intent of the law was to make the metals concentrations in the soil to serve as a record of previous applications of sludge plus the natural levels of these metals in the soil. Therefore, maintaining records of the application are not necessary any longer and it also makes a reference in that paragraph to 503.1.2E2 as being totally unnecessary.

Point number two. There really are no requirements set forth for the analysis of the soil for these methods and I think in these regulations this must be done to fulfill the intent of

the law. In other words, how many samples are required to be taken per 100 acres or 10 acres to characterize the soil?

Thirdly, since only limited knowledge and understanding the adverse effects of the metals listed in the soil are known, it is best if we're on the conservative side until more is known about their effects. And I would submit that the West Virginia Extension Services had a sludge program for a number of years and they can serve as a valuable resource for setting these levels based on scientific fact and experience rather than that what's given on Table 2 of the 503.13. Those levels are kind of high. Chromium 3,000 kilograms per hectare. Pennsylvania suggests only 68 kilograms per hectare as a maximum. Zinc and copper and nickel all might be trace nutrients for crops but in larger levels they are crop tart. They have a crop toxicity potential and the limits for those by our own people at the university are a good deal lower than what are given.

I would like to make one other comment on these. I would be very willing to help the DEP. Anyone on the DEP. I have a fax. I have a telephone. I can drive here. If anybody wants help setting these up or further explanations of these, I'd be very glad to help. A couple of other comments. I support Senator Grubb's comments on the Rule-Making Review Committee. We are tightening up that committee to make sure the rules are satisfied, the intent and fulfillment of the law.

One other comment. It is the intention of the legislation that was passed, Senate Bill 288, which I have right here, was the intention of that legislation that tipping fees be paid and tonnage recorded on all sludge deposited in solid waste facilities, not just in some or for some people.

Number two. Separate permitting should be done for all sewage sludge processing facilities, not just a simple modification of existing solid waste facilities permits without public purview and so on and so on and so on. I will say finally that these rules are in need of serious revision to fulfill the intent of Senate Bill 288. And if you would like, I will provide you-all with a copy of Senate Bill 288 so that you can read it. Take these rules and rewrite them from scratch and not just adopt 40 CFR 503 Regulations. Thank you very much.

Steve Hannah:

Thank you. My name is Steve Hannah, Executive Secretary of the West Virginia Farm Bureau. We have gone through section by section and I will not take the time to read those to you. I have some concerns about the technical part as far as the land application. Two big concerns. Realizing the bill says the amount of tonnage that can be applied to the land, we feel that that is too much and probably should be reduced to 3 ton maximum per year.

Two other items that are quite bothersome to us. One is the fees. All through the regulation you talk about dry tonnage until you get to the fees. It's kind of amazing it jumps the wet tons. In remediation, we could find nothing in the Act that was passed or in 25A-6A that authorizes such fees to be collected. Again, we would recommend that that be changed to dry tonnage.

There is no reference as to how the program would be handled, who would monitor the program. Like Senator Macnaughtan, we feel that the West Virginia University Extension Service has the best capability of knowing the soils, knowing the plant's long history of working with farmers in the educational field. We feel that they should be the head agency as far as working with the land application.

Probably you and DEP needs one person to monitor that and,

if necessary, to take legal actions for those who do not follow the process. Over the years we've been very concerned about the number of times that the sludge has been tested. We think that the schedule that has been put in these regulations will help that considerably. It's not very often, a matter of fact, I don't know if I've ever done it before, the farm bureau or I or the organization, has ever encouraged any bureaucracy to adopt regulations but this is probably a case where regulations need to be adopted so that assured that all application of sludge on land, particularly farm land, is done right, very carefully and monitored during the process. I'll not go through the details. I'll give those in writing. Thank you.

Robert Bricker:

Robert Bricker of Morgantown, West Virginia. I'm a graduate research assistant at West Virginia University. My comments are not to be construed as to reflect a position of the Division of Plant and Soil Sciences or the Extension Service or any other entity of the university.

I'll mention that in my research directly involves the application of sewage sludge to the land for beneficial use and I would have a technical knowledge of the contents of sewage sludge, the regulations concerning it and the options for disposing of it.

Mr. Reinlander, by necessity of appropriate management of sewage sludge is essential to maintaining sanitary conditions within and around West Virginia's communities. Like the waste water from which it is derived in the solid waste with which it is sometimes disposed, sewage sludge is a potential source of disease and has contents which may be environmentally harmful. Because of the lack of regulation and the stringent monitoring program, the Legislature has directed DEP to promulgate regs governing the safe disposal of sewage sludge within West Virginia's borders.

The regulations should deter abuses of our natural resources as well as provide direction for our communities. The

regulations should reflect the intent of 40 CFR 503 and the intent of West Virginia Legislature as it has directed. As I have reviewed promulgated regs, consider my comments as follows. Under the section concerning agronomic rate, you should include phosphorus in the definition of agronomic rate. The concern being to minimize the amount of phosphorous which runs off into surface waters. Many agricultural soils already have the amount of phosphorous required by the crop that is grown on them.

Include in the definition of sewer separated organic materials, newspapers and perhaps other papers such as shredded phone books. The primary fiber in newspaper is cellulose. It's a biomolecule paper that grades more readily than wood waste which is already included in that definition.

In paragraph 3.2.1.A of these promulgated regs, to delete the words "were known to be flooded on a regular basis", that is ambiguous. You might add in that section a paragraph saying, "Land that is frequently or occasionally flooded as defined by the soil survey staff, the soil conservation service." I believe that will meet the intent of that provision.

Also other provisions that should be included under section 4.2.3, provisions for periodic monitoring of ph and metals to 30 years time, information relative to percent solids by weight in the sludge, information relative to phosphorous content of the sludge.

Also included in the regs should be a definition of the sewage sludge products. The definition to include the substance derived by mixing the sludge with a bulking agent. My purpose for this is bulking agents may contain such compounds as persistent organics. The resulting mixed substance would be possibly toxic. Actually, there should be a dedicated fund that is a statewide revolving account for the improvement of waste water treatment, sludge management or storm water control. I find it is appropriate that fees are assessed on a wet ton basis as this would encourage publicly owned treatment works to improve the quality of their sludge by dewatering it.

The fee structure proposed in the regs concerning pretreatment and non-pretreatment publicly owned treatment works reflects a lack of understanding of the very nature of sewage sludges and the purpose of these regulations. As directed by Senate Bill 288, Section 25F-2B, paragraph B12, these regulations are to include a fee structure based on volume of materials handled in a contaminate level of the sludge. The primary need for sewage sludge management regulations is to limit and monitor the contaminants typically found in the sewage sludge. These regulations, as proposed, provide a framework for sewage sludge management. However, they are incomplete.

I recommend that these regulations be rejected and new regs be promulgated reflecting the intent of the Legislature. I might

add to this, as a soil scientist I would concur with Senator Macnaughtan's remarks concerning the appropriate analysis of background metals and soils and determination of the metals present. Thank you.

Jeff Boles:

Thank you. As a Recycling Director for the City of Charleston, I have just very few comments, so I'm going to direct my comments to two pertinent areas. The City of Charleston, after considerable research in this area prior to these regulations being promulgated, in fact, prior to the Legislature actually going into the issue on Senate Bill 288, had decided that composting of sewage sludge, yard waste and some low grade mixed paper waste was a viable option for reaching the 50% goals mandated by Senate Bill 18.

However, these regulations which seem to us to go much farther beyond the intent of the legislation have made that impossible. I speak particularly to 3.3.1D. The requirement for liners and a six inch slab of reinforced concrete on the entire permitted area of the compost area is economically unfeasible for anyone to consider. Of the over 200 municipalities in the United States that we've researched that are doing co-composting of sludge with other mixed waste and doing it successfully, none of them had to face this kind of economic hardship.

Considering the equipment that would also be required, frankly, it puts it beyond the pail for the City of Charleston to even consider doing any form of composting because without the sewage sludge, with the additional cost of disposing of it elsewhere, we could not afford to consider the equipment and the

preparation for any kind of a composting sight. And that's certainly a waste because I consider composting as one of the most exciting and most potentially beneficial recycling activities available to us.

With all the other materials that are considered recyclable, the inorganics, the metal, the paper or the glass, the plastics, still amount to only a fraction of the organic waste that are disposed of in the Charleston landfill. The wood construction of demolition wastes, other organic construction wastes, the yard waste, the food waste, all these things which are being composted elsewhere with sludge and being done successfully, amount to over 70% of what's going in the Charleston landfill now.

But these kinds of regulations make it economically unfeasible to even consider it at this point. The other part is the fees. The fees would make it impossible for the sanitary board to even begin to deal with this issue. So as they're written now, these regs seem to go much farther than the intent of the legislation itself which was hotly debated and make it impossible for us to consider what may be the most exciting and one of the most viable recycling methods possible for municipal solid waste. Thank you.

Delegate Pethtel:

Thank you very much. I am Dave Pethtel. I've been the delegate in Wetzel County for five years and tonight I want to speak to you just from a (tape over) and I can tell you pretty well is what the people in Wetzel County want and what they don't want. And I can honestly stand here and tell you that particularly within in the Solid Waste Division of the DEP, that the people in Wetzel County have no confidence at all. They view this agency pretty much as an agency that when the Legislature passes bills, passes legislation, then that is, you know, pretty much ignored.

And we can go all the way back to the beginning when out-of-state garbage started coming in and, also now with sewage sludge. And I certainly believe it was not the intent of the Legislature to grandfather in, or attempt to grandfather in, any solid waste facilities or also to exempt anyone from fees. And that's just two areas of concern, and I know that you're going to hear from other people in Wetzel County about some of the other concerns that they have, but I would certainly hope that this agency could go back and take another look at these rules and regulations and try to get them in compliance with the intent of the Legislature in Senate Bill 288. And I can promise you that if that's not done that we will revisit this issue once again during the next session of the Legislature. Thank you.

James Kotcon:

My name is James Kotcon. I'm speaking on behalf of the 1,200 members of the West Virginia Sierra Club. I have submitted several pages of detailed comments on these regulations but I'm going to step back just a second and speak to you instead about a few points of general philosophy and where I think these regs have failed.

The first is before you can get into the regs, you had a page on the fiscal impact of these regulations. That page is greatly untrue. Anytime you have regulations proposing fees you have a fiscal impact on the communities, on the effect of industries, on the people. Furthermore, the way these regulations are set up, the state has effectively acquired a fairly significant financial liability because by setting up the fee structure the way it has, without requiring the shirted bonds that are authorized under Senate Bill 288, it is clear, I think, that the state acquires any financial liability from any environmental disasters that are out there waiting to happen and I think that is an issue that you need to take a very close look at.

Second issue is the concern about incorporation by reference. I don't think that is even constitutional. It's very difficult for me as a citizen to know what is meant by some of those definitions. I think that if you are going to have

regulations, you ought to spell out what is meant by a pretreatment publicly owned treatment works versus a non-pretreatment publicly owned treatment works. I still don't know what the answer to that question is. I asked several people at West Virginia University. They don't know what the answer to that question is. And that is the basis on which you are regulating sewage sludge. The regulations need to be more clear than that and they ought to incorporate the specific definitions and the specific levels that you are regulating on.

And the third, and probably the most important, is what we're all here for. These regulations should distinguish between good sludge and bad sludge. Good sludge is the stuff that you can compost and you can mix it in your garden and you can grow good corn with it, and that's the stuff that West Virginia wants to produce. Bad sludge is the stuff that has lots of heavy metals and it's got pathogens and that is the stuff that needs to be regulated and that's the stuff that needs to have full restringent fees on it. These regulations don't make that distinction and until they do, the regulatory program won't meet West Virginia's needs.

I suggest that you need to start out distinguishing between good sludge and bad sludge based on all the criteria that the technical experts have and I think that you ought to encourage beneficial uses of good sludge and regulate the hell out of the bad sludge.

I suggest that the size of a disposal facility in these regulations is grossly out of proportion. You set up Class A sewage sludge disposal facilities as maximum 30,000 tons a month. The entire state of West Virginia, I don't believe, produces 30,000 tons a month. New York City produces 30,000 tons a month. These regulations should be geared toward what West Virginia needs, not for what New York City needs.

And so I'm going to suggest that you need to start out with a new premise. Figure out the difference between good sludge and bad sludge. Do this in an effort to promote the public welfare and environmental protection. I think if you had a problem in that your initial premise was to try and get a few large polluters under control and instead of focusing on environmental protection and promoting the general welfare, you came up with regulations that will legalize a few large polluters. Your premise should not be to legalize some large polluters, it should be to distinguish between good sludge and bad sludge.

And so I'd like you, Max and Ann, withdraw these regulations, go back to the drawing board and start over on them, please. Thank you.

Steve Larose:

Thank you. I'm the Mayor of Summersville and I'm here representing the City of Summersville and several other small cities in West Virginia who have sewage treatment plants.

Normally, I'd be here complaining about regulations and fees that Elijah is trying to put on me. I believe that the regulations need to be put into effect. Small cities need to have regulations on we're putting our sludge, how we're doing it and any other person who is producing sludge in West Virginia.

I want my state and my city to be the safest place we can live. We have a large lake up there and we don't want to put pollutants out to pollute that lake. We don't want anybody else to put pollutants out. There has been comments tonight, you know, I've been a politician, I wondered what a politician was, well, I learned tonight what a politician was and that we probably are unscrupulous. Well, I want to tell you that people here, the senators and delegates and these people, have worked very well with cities like Summersville.

We're trying to regulate an industry that needs regulated and each of us are trying very hard in our own way to protect you and your citizens and I wasn't going to say much but I put a little small letter in. Elijah already knew what I was going to complain about. But I think that someone needs to stand up and

say, "Hey, we're trying our best and we're not on the take, and we're not being here to hurt anyone in West Virginia. We're trying to protect West Virginians. Each and every one of you."

There's 230 some-odd cities and if these regulations go into effect, they'll protect those people in those cities. Now, they may not be the best regulations in the world. That's why each and every one of you should put some input in to fine tune that regulation. But to accuse each and everyone of us of being unscrupulous and corrupt is crazy because we give our time for what we make and put back into these small towns is ridiculous.

And we disagree a lot on a lot of things but, you know, for people to stand there and say that about them is ridiculous. The one thing that I've complained about, like we said earlier, the dry base is spoken about all through it. When you look at the (??) taxes on the flood base, the City of Summersville, that would be a 25% increase in the water/sewer rates of each customer and those of you who speak of taxing of more, what you're going to do is going to tax yourself. You're going to tax the cities of West Virginia and this fee should be taxed on a dry base.

So if you propose taxing, what you're going to do is you're going to tax yourself. People on fixed incomes in Summersville can't afford anymore taxes. We need to make sure that rate is set on a dry base. I have no problem with dry base because it won't be insignificant. But they need money to go out and do

what you-all want, to police the industry. So that's why I'm not opposed to a fee. I think it should be uniform throughout. Each city in West Virginia has different levels of sludge. You know we have liquid so, you know, we're probably the heaviest producers. I think Beckley, they are on liquid but, you know, other cities have 50%, 20% on a dry basis, so we need to look at that and I commend you on trying to take action to protect the people of West Virginia. And I hope you will look at what we have said about the wet and dry base and I thank you.

Sue McGuire:

I'm Sue McGuire from Ritchie County and I'm going to make my comments brief. I'm just going to read from my written comments. The proposed rule doesn't contain the necessary means for implementation of a comprehensive program for the regulation of sewage sludge mandated in West Virginia Code 20-5F-2B. There should be specific reference to enforcement of the rule of the state and on a county level.

On the fiscal note page under B.2, sewage sludge processing facilities will profit from inputting sludge. Under B.3-A, the intent of the law was not to make operations cost prohibitive for POTW's or West Virginia farmers. Under C, public health and safety concerns could have a great economic impact with the potential of pollutants being introduced into the environment.

On page 7, 3.2, the standards are not strict enough to discourage large quantities of sludge from coming into the state. Especially when other states have stricter standards than 40 CFR and 503. On page 16, 5.4, subpart E, "Incineration", 40 CFR and 503, I think it should be deleted. In West Virginia new solid waste facilities are prohibited from utilizing incineration technology.

On page 19 in the Appendix A, something should be added to provide a monitoring system from material en route to a

processing facility. Each truckload should be required to have a manifest showing location and time of travel. This will provide documentation of the material to help prevent contamination by illegal dumping of toxics into the sludge. Thank you.

Tom Degan:

My name is Tom Degan. I've generated quite a lengthy comment with quite a few specifics. I can't go into them here in this amount of time but I would like to hit on some of the major points.

I guess first off I'm concerned it does not appear to me that this regulation satisfies the intent of Senate Bill 288 or does 503. There are many places in 288 that would require us to be more stringent than 503 and the incorporation of 503 seems to run contrary to that intent. I find many, many areas where there are discrepancies between the intent and what this rule accomplishes. I'll leave most of that to my written comments.

However, I would like to point out in the definitions the classification of a Class A sewage sludge facility is grossly oversized. The sludge generation rate per person per year is much, much less than the garbage generation rate per year and to use that same sizing for sludge facilities as solid waste facilities ends up to an oversizing of probably about 5 times, even when you include your bulking agent that would be added.

I think that the facility size should be downsized something to the order of Class B being capped at 2,000 tons per month, Class A capped at 6,000 tons and to avoid confusion, I think the Class ABC has got to go. You'll have to have Class I, II or III

or something for a sewage sludge facility.

I also think that facilities that handle mixed solid waste with the sewage sludge should be given a completely separate status. As for the bonding, 288 required bonding. It doesn't appear anywhere in the rule. I think the remediation fee was an attempt to achieve the same end but I believe it leaves the DEP responsible for environmental remediation. To me that's unacceptable. The polluters should be the one responsible.

In the bill, the bonding was made optional. It was "may require bonding" and I think the intent behind that was not to require a bond of every single land application. If some realistic metals and pollutant levels were utilized, such as Senator Macnaughtan and others have proposed, and given the agronomic rate, I think a lot of land applications don't really pose the kind of threat that we would want to bond. But I think the bonding should be reserved for large applications of sludge, the applications that are allowed to go above the agronomic rates such as the 25 tons per acre on reclamation, land applications that involve sludges that were processed with mixed solid waste, steeper slopes.

I think that the bonding can be tailored and required of a land application project that was much more likely to present an environmental hazard or a health hazard. I was present at the Legislature and spent a lot of time on this bill and as far as I

could tell it was never the intent to be hard on the POTW's or rather I should say it was the intent to try and have a minimal impact on POTW's.

The liner requirements are unrealistic, unachievable. Especially considering a lot of the smaller facilities that we have. I mean some of the POTW's we have. If there was a spill there it would amount to a land application. I don't think a six inch slab of concrete with two feet of clay reach a collection and detection and six inch sub-bases appropriate or realistic. Thank you.

Martha Huffman:

My name is Martha Huffman. I thank you for allowing me to address you this evening. I'm speaking on behalf of the Wetzel County Solid Waste Authority. And in reviewing this document, the Authority found so many gross inconsistencies, not only between these rules and regulations and the intent of Senate Bill 288 but within the document itself, that it was difficult to determine whether the recommendation should be to change specific passages or to start from scratch.

We chose to offer specific comments as well as offer the strong suggestion that the writers of these rules and regulations go back to the drawing board and make the rule reflect the contents and the intent of Senate Bill 288. I'd like to start out by saying that the fiscal note for proposed rule where it states that there will be no fiscal change, as a result at this Solid Waste Center Agency Coordinating Committee meeting this was discussed at length. Mr. Cook explained that the reason why this was written this way was because everybody else did it that way.

But, in fact, there is a fiscal impact and I think that the fiscal note should reflect that. Just the fact that under the previous policy of the DEP that was adopted after the Office of Waste Management was transferred from the DNR, on one contract, the Nassau County contract that was coming to Brooke and Wetzel Counties, the State of West Virginia was losing one million

dollars in tipping fees alone because of the policies of the DEP. And it was costing the host county solid waste authorities $49,000 per year in lost fees. So to say that there is no fiscal impact is truly a false statement.

The second thing I would like to address is Section 4.1.3. The Wetzel County Solid Waste Authority has many major problems with this section. Not only as it applies to Wetzel County but the impact it will have upon the entire state. Quite candidly, the subsection creates wretched state policy. The permit issued to the Wetzel County landfill permits SW1021-92 under E Permit Conditions, Section 1 states, "This facility submitted the module AMPDES application. Incorporation of Module A into the solid waste facility permit is required and will constitute a major modification." I would like to also reiterate that under mega-modification there is supposed to be public notification and opportunity for public comment. That has not occurred yet and all related regulatory requirements must be met thereunder.

Yet 4.1.3 states that a sewage sludge processing facility modification, not major, modification will be obtained. Not might be, will be obtained, emphasis ours, as a part of the existing solid waste facility permit and shall include a sewage sludge management plant. They treat the sewage sludge processing facility as a minor modification. There are no provisions for public input, no requirement to such drastic change and land use would have to comply with the county or regional solid waste

authority citing plan, no requirement of county or regional solid waste authority approval.

Furthermore, the language "will be obtained" nearly implies a mandate that the DEP ground such processing and facility modification to any permitted solid waste facilities, be it a recycler, a transfer station or a landfill. Requirements for a permitted solid waste facility to receive a sewage sludge processing modification are less than stringent than those that are required for POTW's.

Under 25F-2B-12C, POTW's are required to receive a permit while permitted solid waste facilities are required by the proposed rules only obtain a minor modification. It is apparent to the Wetzel County Solid Waste Authority that any permitted solid waste facility seeking to process sewage sludge should obtain a permit as required for POTW's and that such a permit be subject to the provisions established within the local or regional solid waste authority citing plan.

The sewage sludge processing facilities are expressly or tentatively prohibited within the host counties plans or the proposed sewage sludge processing has not been designated as an acceptable area. The permitted facility must first obtain approval from the regional or county solid waste authority before the DEP can issue the sewage sludge processing permit.

In the same manner, POTW's are required to obtain an additional permit even though the volume of sewage and sludge remains constant. Permitted solid waste facilities will be seeking a permit for a new activity upon a preexisting site. They will still be bound by the tonnage limits and fees required in 25F-28-12 of parenthetically obtaining the sewage sludge processing permit for a permitted solid waste facility should be treated as a major modification to an existing facility and subject to all provisions within 3.1.8.

The other thing that we found noticeably lacking in these rules and regulations is you should have an entire new section, 47-38D-7 Enforcement. There are absolutely no consequences under this rule for noncompliance. Our Authority suggests language be adopted to issue citations for noncompliance and place the offending generator or importer on a compliance schedule to remediate the violation.

We further suggest that if the violator doesn't come into compliance within the time frame required, the fines be levied. We further suggest the language be included to authorize the director to revoke the permit of an importer or generator of sewage sludge that doesn't comply or repeatedly violates the provisions of Chapter 20 in these rules and regulations in regards to sewage sludge.

Language to spazz up the appeal process should also be

included in this section as well. If I can have a few minutes here to collect my thoughts, I'll be as quick as I can here. There was a section on the fees and there was a question of how the fees would be applied. I think that one of the things that needs to be looked at is that during the whole legislative process, one of the things that was constantly considered and discussed was what economic impact these rules have on the local POTW's.

And I think realistically there should be a land application fee for sludge management, but if you try and put an $8.25 a ton fee and it would be a wet ton fee particular, I think that's totally unreasonable. I believe, Mr. Cook, you mentioned today in the SWIC(??) meeting that the Tax Department had said that, "Well, this is just too cumbersome for us to sit there and figure out any kind of formulation of if something goes into a solid waste facility, is composted and then comes out." You referred to comments that were issued by the Tax Division. The Tax Division actually threw the ball back into the DEP's court and said that the DEP could, in fact, determine whether or not a realistic scale could come up and so I would seriously consider that you, instead of looking at wet tons and dry tons, look at actual weight. What goes across the scale? What does it weigh when it goes across the scale and what does it way when it comes out? Charge all applicable fees when it goes across the scale. When it comes out, weigh it. Whatever it weighs, deduct it from the monthly tonnage on that and refund the consumers that based

upon that month.

Also our Authority takes major and great exception to the incorporation of EPA 503 rule by reference. There are many places where 503 rule is in direct contradiction with the legislative intent of Senate Bill 288. I think that you need, and also is quite confusing, it's very difficult to look at the rules and regulations. I know that you guys are under the time and underneath a big gun and it was difficult to put up, throw all of this together. And Water Resource Division was looking at it and the Office of Waste Management was looking at it and it was a difficult task and I respect the work that you put into it.

But by the same token I think that you need to go back and specifically lift what definitions you want out of 503 and where they don't conform to West Virginia Code you should throw them out and you should replace them with language that does reflect the intent of Senate Bill 288. And that concludes my comments.

Agnes Mezzeska:

My name is Agnes Mezzeska and I am from Brooke County. If I were living in a housing development and I were to put compost on my garden, my neighbors would surely turn me in. Well, that is what I am here to do. I'm like a certain neighbor who is an official at the landfill. I live only 700 yards from the landfill. I look out my back window and there it is. Mounds of garbage covered with sludge. This isn't our sludge. Why should I have to put up with this?

I can't plan any activities. I don't know when they are going to spread the sludge. I don't know what the weather conditions are going to be, the wind directions. I have to have air conditioning in my home. It's nauseating. I came home one night. I could not eat supper because of the smell.

To the gentleman who said sludge is exciting, you're invited to my house for a picnic. I could see if it belonged to us but it doesn't. There's a computer game out that each state has a symbol. Guess what the symbol for West Virginia is. An outhouse. And that's what we're talking about tonight. Thank you.

Ms. July Trooper.
Since I didn't see this article until after I sent in my objections to the DEP regulations, I am sending this separately, to be included in your files
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years, according to studies by DRI/McGraw Hill and the National Association of Manufacturers. Most of them will be in the higher-paying manufacturing and professional services sectors. (It is ironic that the this job-threatening Btu tax proposal came while the administration was pushing for enactment of its job-stimulus package.)

the Senate Finance Committee acted wisely in wiping this tax from the president's deficit-reduction package. We must maintain pressure on our legislators in Washington to prevent this unfair tax from being considered again.

Rotruck, of Keyser, Mineral County, is president of the Association of Natural Resources Workers.

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Gazette 7-9-93

Sewage sludge policy may make us nation's septic tank

By Jedediah Purdy

Three months ago, the Legislature acted to protect the state from massive quantities of New York sewage sludge. Now a state agency has drafted regulations that threaten to undermine the intent of the Legislature and make West Virginia the nation's septic tank. These need only the approval of the secretary of state to become the law of the land.

Many of the Mountain State's recent environmental disputes have centered on the import of out-of-state waste, most of it from the East Coast. The latest of these exploded last winter, when state media got wind of two landfill operations in Brooke and Wetzel counties. At those sites, Pennsylvania businessman Pasquale Mascaro was accepting 108,000 tons per year of New York sewage sludge. Due to a loophole in West Virginia solid waste law, Mascaro was able to classify his sludge disposal as recycling, and so was exempted from various fees (amounting to over $1 million per year in lost state revenue), control by local government, and limits on the quantity of waste he could accept annually.

Angered, the Legislature acted decisively during the 1993 session to bring sewage sludge under state control. Both houses passed a strong bill, S.B. 288, creating a statewide sludge management program and establishing the framework for its regulatory structure. The coalition of local and state officials, environmentalists and concerned citizens that had supported the bill seemed to have won a major victory.

However, the battle wasn't, and isn't, over. A successful bill is only a blueprint for state policy. The details of regulation and enforcement, particularly for complex environmental issues, are provided by regulations drafted by state agencies in accordance with the language of newly established code. When the agencies follow the Legislature's blueprint faithfully, a coherent structure of policy results. When the blueprint is ignored, strange and horrible things can happen.

In this case, the Division of Environmental Protection, driven by a swift-approaching deadline, went its own way and drafted a set of regulations so different from S.B. 288 that the two cannot be said to reflect the same policy. The result is a regulatory Babel so fraught with omissions and contradictions that, if not thoroughly rewritten, it will hamstring any effort to control sludge-related activities in the state.

The inadequacies of the regulations lie chiefly in two elements. The first is their dependence on federal Series 503 sludge regulations, among the last documents produced by the Reagan-Bush Environmental Protection Agency, which fully reflect the lack of concern for the environment and public health that characterized those administrations. The DEP incorporates the great bulk of Series 503 into its own package, despite a Grand Canyon-sized rift of disparities between those regulations and the language of S.B. 288.

> The proposed regulations are profoundly, fundamentally flawed.

The second is the excessive "grandfathering" that pervades the regulations, which exempts current operations, e.g., the Brooke and Wetzel sites that originally ignited the controversy, from most regulatory requirements.

S.B. 288 further requires that the amount of heavy metals dumped on West Virginia soils as sludge components not be enough to drive the total metals levels of the soil above safe limits. The bill accomplishes this by stipulating that all contamination limits take into account the amounts of metals already present in the soil. These regulations allow for the possibility of the future calculation of such figures, but, despite the availability of similarly derived figures from several Canadian provinces, effectively ignore that requirement by taking their contamination ceilings directly from the Series 503 regulations. In contradiction to the language of S.B. 288, the series 503 figures explicitly exclude background soil contaminants from their calculations. The result is that our maximum legal levels of metals in sludge are consistently three to four times as high as those of New York, the source of most of our imported sludge.

S.B. 288 requires "that information relating to the disposal of sewage sludge be made available to affected communities." These regulations make no provision whatsoever for public notice or comment prior to most sludge disposal activity, including land application and the opening of a sludge processing operation within an existing solid waste facility. Simply put, this provision of S.B. 288 goes virtually unacknowledged.

Furthermore, there is great likelihood that the DEP will not have funds sufficient to operate even this loophole-ridden program. The regulations as originally conceived paid for enforcement through a levy on all producers and importers of sewage sludge. After a rash of complaints from operators who felt unduly burdened by this fee structure, the division altered the levy to make it applicable to "wet" rather than "dry" tons of sludge. As this material loses roughly 80 percent of its weight during the curing process, the DEP has thereby ensured that its program will operate at no better than one-fifth of its intended funding level.

In response to the same complaints, the division made the levy applicable only to sludge "intended for land application." Needless to say, intent is a subjective and slippery matter, especially in the hands of operators whose taxes vary according to where they claim their product is bound. It would not be surprising to find in a few years that much sludge not "intended for land application" had somehow wound up land-applied after completion of the fee process.

The pattern here is clear. The proposed regulations comply with neither state code nor the standards of intelligent waste management and exacerbate the crisis they ostensibly aim to solve. In a final insult to legislative intent, they do not adequately fund the program they establish. They are profoundly, fundamentally flawed.

The only way to implement the intent of the code and safeguard the health of West Virginians is to do away entirely with the proposed regulations and start anew. Although this proposal will be subject to review by a legislative committee next year, by then the grandfathering process will be complete and other significant damage may have been done. Therefore, the rewriting should begin immediately. I join citizens statewide in urging that the DEP return to the proverbial drawing board, this time paying close attention to the intent of the Legislature and keeping in mind its responsibility to the people of the West Virginia.

Purdy is a staff member of the West Virginia Citizen Action Group based in Charleston. This is an abridgement of a

Charleston Gazette

Pollutant levels in sewage sludge

§47-38D-3.2.2 provides that "No person or entity shall be allowed to apply sewage sludge to land in a manner that will result in exceeding the maximum soil concentration for all pollutants, including, but not limited to, arsenic, cadmium, chromium, copper, lead, mercury, molybdenum, nickel, selenium and zinc, to be determined based, at a minimum, upon cumulative loading rates of 40 CFR, 503.13(b)(2) and 503.12(e)(2) and soil testing requirements developed under these regulations."

The provision presented in §47-38D-3.2.2 is completely contrary to the intent and language of S.B. 288. West Virginia Code §20-5F-2b(b)(6) requires "That no person or entity be allowed to apply sewage sludge to land in a manner that will result in exceeding the maximum soil concentration for all pollutants . . ." I have read the 503 rule, and the loading rates in it are not tied to existing soil concentrations in any way. I have enclosed a table showing allowable concentrations for compost that Ontario and British Columbia have developed. When the Ontario concentrations, which are based on the average metals concentrations in rural soils, are examined, it becomes clear that the 503 numbers are not protective of existing soil conditions, nor do they implement the intent or language of §20-5F-2b(b)(6).

The Ontario numbers or the British Columbia numbers would satisfy the requirements of §20-5F-2b(b)(6) much more so than would the 503 numbers, and I recommend that they be used.

At the public hearing, Senator McNaughton, a Ph.D. chemist who sits on the board of a POTW, submitted written comments that also addressed this issue. He also offered to assist the DEP in developing this portion of the rule. The fact that the DEP did not take advantage of this resource, or consider the numbers from Ontario and British Columbia, would seem to indicate a lack of resolve to implement the intent of the legislation.

Permits required

1. A major concern in Section 4 of the 38D rule is the question of how to handle an existing solid waste facility that wishes to expand its operations to include sludge processing. The version of the rule that the public comment period and hearing were on had the following language:

"4.1.3. For those sewage sludge processing facilities which are located on or within a facility regulated by the division pursuant to a solid waste permit required under Chapter 20, Article 5F, a sewage sludge processing

facility modification will be obtained as a part of the existing solid waste permit and shall include a sewage sludge management plan."

Following is the comment on this issue that I submitted at the public hearing on June 23:

"The language in §47-38D-4.1.3 is almost word for word the same language that was in the bill drafted by the DEP when it was first introduced during the 1993 regular session. That language was intentionally dropped from both the House bill and the Senate bill because it was viewed as a vehicle to grandfather in commercial sludge processing operations that had not undergone the pre-siting and siting requirements of the West Virginia Code. The House and the Senate both passed resolutions in reaction to the massive amounts of sludge that were being processed by commercial operations that had not undergone the siting and public approval requirements of the West Virginia Code. The fact that this language has been put into this rule demonstrates a blatant disregard for the Legislature of the State of West Virginia.

The way that 4.1.3 is worded, a solid waste facility handling relatively "benign" portions of the waste stream, such as a materials recovery facility or a yard waste composting facility, could handle sewage sludge just by filing a management plan. There is not even a provision that the plan needs to be approved by anyone! It is clear that in such instances, a certificate of site approval should be obtained, a Certificate of Need should be obtained, the site should be in a zone authorized by the local authority's siting plan for the operation, the public should be notified and have the opportunity for comment and a hearing, and all other siting and permitting requirements provided for in the Code be should be met. If existing facilities are to process sewage sludge as a part of the existing solid waste permit, then it should be as a major modification which shall require submission of a new permit application subject to all the siting and permitting requirements of the West Virginia Code."

In response to the comments the the DEP received on this issue, the agency dropped the language in what was then 4.1.3. However, the DEP did not replace that language with anything. It would appear that the rule went from unacceptable language on the topic of existing facilities, to no language on the topic! How is the DEP going to handle this issue? How can the public submit informed comment on something that is not addressed in the rule? How are solid waste facilities that wish to process sewage sludge to proceed? If these types of procedures are not spelled out in the regulation, then when, where and how are they to be spelled out? All we are left with is the

language in 4.1.1. that states "No person may construct or operate a sewage sludge processing facility (including mixed waste composting facilities which utilize sewage sludge) or a commercial solid waste facility which processes or handles sewage sludge or materials derived from sewage sludge without first obtaining a solid waste facility permit; provided, That land upon which sewage sludge is applied is not a solid waste facility." This language is vague to the point of meaningless. One could assume that the permit modification section of the Solid Waste Management Regulations would apply, but sludge processing facilities were only just defined and classified as solid waste facilities this past session, and the Solid Waste Management Regulations do not address them. Once again, I submit my comment as follows: " A certificate of site approval should be obtained, a Certificate of Need should be obtained, the site should be in a zone authorized by the local authority's siting plan for the operation, the public should be notified and have the opportunity for comment and a hearing, and all other siting and permitting requirements provided for in the Code be should be met. If existing facilities are to process sewage sludge as a part of the existing solid waste permit, then it should be as a major modification which shall require submission of a new permit application subject to all the siting and permitting requirements of the West Virginia Code."

Section 4.1.3. of the proposed rule states that "For those publicly owned treatment works (POTW) which produce sewage sludge and are regulated by the division pursuant to an WV/NPDES permit required under Chapter 20, Article 5A, a sewage sludge processing facility modification will be obtained by the applicant as a part of the existing WV/NPDES permit and shall include a sewage sludge management plan."

2. The West Virginia Code, §20-5F-2b(c) states that "For those publicly owned treatment works (POTW) which produce sewage sludge and are regulated by the division pursuant to an WV/NPDES permit required under article five-a of this chapter, a sewage sludge processing permit shall be a part of the existing water control permit and shall include a sewage sludge management plan approved by the chief."

The provision that the sewage sludge management plan be approved by the chief should be in the rule.

Bonding

Senate Bill 288, in Section 2b(b)(5) provides "That the director may require a surety bond, deposit or similar instrument in an amount sufficient

to cover the costs of future environmental remediation from producers and importers of sewage sludge; ".

The DEP received numerous comments decrying the lack of any bonding in the rule. Following is the comment that I submitted on this subject:

"Bonding for the processing facilities is covered in Section 3.13 of the Title 47 Series 38 rule. However, bonding for land application projects is not addressed at all in this rule except perhaps through the mechanism of the environmental remediation fee mentioned in 6.3.1. This mechanism appears to have the effect of making the DEP responsible for the environmental remediation. That is unacceptable; the idea is to make the party responsible for the pollution responsible for the remediation, not the taxpayers.

The fact that §20-5F-2b(b)(5) uses the words "may require a surety bond" indicates that there is to be some flexibility in the requirement of the bond. It is understood that such bonding is difficult to get, and it was not the intent of the legislature to require it of operations that are not likely to result in environmental degradation. With pollutant concentrations that truly implement the intent of §20-5F-2b(b)(6), such as the ones I have submitted herein, and with the agronomic rate requirement in 2b(b)(7), I would think that most land applications of the type and size currently being performed by POTWs would not be required to post a bond. The type of operation requiring bonding would be one that is more likely to threaten ground or surface water, soil health and the public health and safety. Such an operation would have the following characteristics:

- *large applications of sludges,*
- *higher contaminant levels, such as British Columbia Concentration Codes 3 and 4, or Ontario's controlled-compost class for restricted use,*
- *involve applications above the agronomic rate, such as the rates up to 25 tons per acre per year that are allowed in the reclamation of surface mine land,*
- *involve sewage sludges that were processed with mixed solid waste,*
- *involve slopes between 6 and 15 percent*

The bonding language from Title 47 Series 38, section 3.13 could be used with some minimal changes:

Title 47, Series 38, section 3.13.2.a could read 'All bonds must be submitted under the requirements of these regulations on a form prepared and furnished by the director, must be made payable to the State of West Virginia, and must provide for continuous liability from the initiation of operations at the ~~facility~~ land application site for the full term of the ~~permit~~ operation and for up to ~~ten (10)~~ five (5) years after final ~~closure of the permit~~ operations have been concluded at the land application site. Any further time period necessary to achieve compliance with the requirements in the closure plan of the permit shall be considered an additional liability period.'

Title 47, Series 38, section 3.13.13. could be reworded to reflect the amounts required for land application sites. I suggest a minimum of $50,000 and an amount of from one thousand to four thousand dollars ($1,000 to $4,000) per acre at the discretion of the director."

The DEP's response to the bonding issue comments in it's responsiveness summary is without merit:

1. The DEP says that it ". . . determined . . . that such a requirement [bonding] would be unmanageable if the intent was to cover each individual land application site." The use of the word "may" in Section 2b(b)(5) clearly indicates that the legislature did not intend to give the DEP a hard and fast order to cover each individual land application site; the DEP was given the latitude to implement a manageable bonding program. However, the approach that the agency used, the remediation fee, imposes a fee on all sewage sludge intended for land application. Each individual land application site is required to pay regardless of the potential for environmental damage that it presents, thus reducing the incentive for producers and importers to design an environmentally sound program.

2. The agency goes on to say in the responsiveness summary that "Very few bonding requirements provide sufficient funds to effectively remediate detrimental impacts." The provision in S. B. 288 does not limit the DEP's ability to set up a bond program that will provide sufficient funds; on the contrary, it authorizes the agency to ". . . require a surety bond, deposit or similar instrument in an amount sufficient to cover the costs of future environmental remediation . . .". In any case, the approach that the agency took, the remediation fee, appears to make the DEP responsible for the environmental remediation, which is not acceptable.

3. The agency, in it's responsiveness summary, tries to justify it's use of the remediation fee by implying that the ". . . or similar instrument" clause

could be used to mean a remediation fee scheme such as the one in the Groundwater Protection Act (§20-5M-9). The "Groundwater Remediation Fund" created in the Groundwater Protection Act is not the outgrowth of some vague "or similar instrument" wording, but specifically named and created in section nine of the act which is five pages long. If the legislature had intended to create a similar remediation fund in S. B. 288, it would certainly have done so with as much specificity as it did in the Groundwater Protection Act.

The actual intent of the "or similar instrument" clause is to refer to the many other forms of financial assurance that are acceptable alternatives to surety bonds without having to name them all. When section 3.13.3 Form of Bond or Other Financial Assurance of the Title 47, Series 38 Solid Waste Management Regulations are read, it can be seen that the "similar instruments" are as follows:

"3.13.3.a. The director will accept the following types of bonds:

3.13.3.a.A. A surety bond;

3.13.3.a.B. A collateral Bond (including cash and securities);

3.13.3.a.C. An escrow account;

3.13.3.a.D. Letters of credit;

3.13.3.a.E. Performance bonding fund participation (as established by the director); and

3.13.3.a.F. A combination of these methods.

3.13.3.b. If collateral bonding is selected by the permittee only the following forms of collateral bonding will be allowed:

3.13.3.b.A. Cash deposit;

3.13.3.b.B. Collateral securities; and

3.13.3.b.C. Certificates:

3.13.3.b.C.(a) Bonds of the United States or its possessions;

3.13.3.b.C.(b) Bonds of the Federal Land Bank;

3.13.3.b.C.(c) Bonds of the Homeowners Loan Corporation;

3.13.3.b.C.(d) Full faith and General Obligation bonds of the State of West Virginia or other states and of any West Virginia county, district, or municipality, or of other states; and

3.13.3.b.C.(e) Certificates of deposit in a bank in this State in favor of the Department."

It is readily apparent that there is nothing in this list of similar instruments that would imply the creation of a remediation fund or the imposition of liability for environmental remediation upon the DEP.

Land application fee

1. Section 6.3.2 of the 38D rule has been amended to read:

"6.3.2. Producers and importers of sewage sludge or material derived from sewage sludge intended for land application shall be assessed a sewage sludge management program fee of $2.50 per dry ton."

My objections to this language are:

* West Virginia Code §20-5F-2b(b)(12) provides that the fee be imposed on ". . . the land application of sewage sludge. . .", not the intention of land application.

* West Virginia Code §20-5F-2b(b)(12) provides that ". . .The fee schedule shall vary according to the volume of materials handled and the contaminant level of the sewage sludge. . .". This proviso was crafted not only to encourage the production of a cleaner material, but to accommodate the smaller POTWs. This provision has been completely ignored in section 6.3.2 of the 38D rule. Not only is this in contradiction with the intent of the Code, it has been the source of much hue and cry from the POTWs who have prevailed in their request that the fee be imposed on "dry" tonnage. This has resulted in an 80% reduction in funding for the DEP, which says in the responsiveness summary that it ". . . will reevaluate its resource requirements in light of this reduction."

If the agency had implemented the intent of the legislature and established a fee structure that varied according to the volume and contaminant levels of the sewage sludge, it could have:

Levied the fee on the actual tonnage that crossed the scales, be it wet or dry,

Imposed a lesser fee on the POTWs (especially the smaller ones),

Imposed a stiffer fee on the large applications proposed by commercial facilities that are more likely to threaten the public health and safety,

Maintained an adequate funding level, and

Provided an incentive to produce a cleaner material.

By ignoring the legislative intent, the DEP has:

Committed itself to relying on guestimates and formulae to arrive at a "dry" ton figure instead of just weighing the material. (Twenty percent solids is considered "dry", yet the sludges generated by different procedures and facilities ranges from a liquid slurry to 50% solids or more.),

Slashed the funding of the program by 80%, which will have a serious impact on the effectiveness of the program,

Punished smaller publicly owned facilities by making them pay as much per ton as large commercial facilities, and

Removed the incentive to produce a cleaner material.

Once again, we see the DEP flying in the face of logic and the Legislature, only to weaken the program and its effectiveness as a regulatory agency.

2. In the responsiveness summary, the DEP states that "Section 6.3.3 was amended to remove tipping fees from sewage sludge processing facilities and to remove the provision for deposit of fees collected in only the Solid Waste Enforcement Fund."

The regulation of tipping fees at solid waste facilities is delegated to the PSC. In my comments to the DEP, I asked if the PSC had been consulted in

the promulgation of the rule. My question went unanswered, and I feel it is a valid one that should be answered.

Although the words "... and deposited in the Solid Waste Enforcement Fund ..." were stricken in section 6.3.3., the reference to Chapter 20, Article 5F, Section 5a.(h)(1) is to the Solid Waste Enforcement Fund only, so the contention in the responsiveness summary is not correct.

The language in West Virginia Code §20-5F-2b(e) states that "All sewage sludge placed in, or upon, or used by a solid waste facility .... be subject to the same tipping and other fees levied by this chapter..." The chapter referred to is Chapter Twenty and it levies more fees than the one referred to as Article 5F, Section 5a.(h)(1), as follows:

> Article 5F, Section 5a levies a solid waste assessment fee that is dedicated not only to the Solid Waste Enforcement Fund, but also to the Solid Waste Management Board Reserve Fund and the Solid Waste Reclamation and Environmental Response Fund.
>
> Article 5N, Section 4 levies a solid waste assessment fee that is dedicated to the county commission in which the landfill is located and the closure cost assistance fund.
>
> Article 11, Section 5a. levies a recycling assessment fee that is dedicated to the "Recycling Assistance Fund" and allocated to a grant program administered by the DNR, personal services and benefit expenses of conservation officers, the governor's office of community and industrial development, the solid waste reclamation and environmental response fund, and the hazardous waste emergency response fund.
>
> Article 11, Section 5b levies a solid and hazardous waste supplemental assessment fee that is dedicated to the hazardous waste emergency response fund.

The section should be amended to accurately reflect the code.

In conclusion, I would like to point out that the situation that caused the legislature to pass a bill and declare in that bill that an emergency existed, had the following components:

The DEP was allowing sewage sludge to be processed and placed in two commercial landfills without being counted as tonnage, and therefore the state was not getting any solid waste assessment fees.

The amount of sewage sludge that was being processed and placed in these facilities was considerable, over 9,000 tons per month, yet because the DEP allowed this sludge to escape being counted as tonnage, no permit modifications were initiated and the permitting scheme that the legislature and the public had worked on over the last several years had been bypassed. The requirements for Certificate of Need, pre-siting notice, certificate of site approval, the provisions of the local solid waste authority siting plans, public notice, public comment, public hearing, county commission approval, public referendum, were all by-passed.

The DEP justified these actions by claiming that the facilities were not disposing of sewage sludge but "recycling" it, and by referring to various recycling loopholes and exemptions in the code, claimed that the above mentioned activities were not subject to solid waste regulations.

The legislature reacted by passing Senate Bill 288, which specifically and intentionally closed the "recycling loopholes" pertaining to sewage sludge and composting, thereby requiring sewage sludge to be counted as solid waste and subject to solid waste assessment fees (except when land applied) Sewage sludge processing facilities were defined as solid waste facilities and thereby subject to the permitting and siting process that other solid waste facilities are subject to. The legislature declared that an emergency existed and directed the DEP to promulgate an emergency rule.

The DEP, in promulgating the initial rule to address this emergency, has only provided that sewage sludge be subject to a portion of one of four solid waste assessment fees, and has taken no steps in addressing how an existing solid waste facility that wishes to process sewage sludge is subject to the permitting and siting process. In fact, today in a phone conversation with the DEP office, Clifton Browning, after consulting with Dick Cooke, told me that the DEP was <u>not</u> going to re-open the permits of the two facilities whose operations brought about this emergency. It is clear that these regulations do not satisfy the intent of the legislature to deal with the emergency. On the contrary, if this rule is filed and approved as it is, the emergency will be institutionalized.

This concludes my comments on the failure of this rule to implement the intent of the Code of the State of West Virginia. I applaud your long standing concern for the people of West Virginia and appreciate your efforts in this matter. Thank you.

Sincerely,
Tom Degen

June 22, 1993
Tom Degen
HC 75 Box 324
Chloe, WV 25235

To: Bill Rheinlander
Office of Waste Management, DEP
1356 Hansford Street
Charleston, WV 25301

FILED
Jun 28 10 09 AM
OFFICE OF WEST VIRGINIA SECRETARY OF STATE

Enclosed are my comments on the Title 47 Series 38D Sewage Sludge Management Regulations:

Definitions

The definitions 2.8, 2.9, and 2.10 are confusing in that one cannot tell how they differ from the definitions of the corresponding solid waste facilities. Since sewage sludge is a solid waste, and since these definitions also include "mixed solid waste" within them, it is difficult, for example, to tell how 2.8 is different from 2.7.

Sewage sludge is generated at a much lower rate per person than is solid waste. There are approximately 250,000 wet tons per year, or 20,833 tons per month, of sewage sludge generated in West Virginia. 250,000 tons/yr divided by 1,800,000 people equals .14 tons per person per year. This equals 280 lbs/person/yr or 23 lbs/person/month or .78 lbs/person/day. When this figure is compared to the 4.82 lbs/person/day of solid waste that is generated, it becomes clear that to use the same sizing for sewage sludge facilities as for solid waste facilities results in an unrealistic oversizing of classes of sewage sludge facilities (by roughly six times). When enough capacity is added to that figure to maintain a 4:1 sludge to bulking agent ratio (by weight), the result is still an oversizing of about 5 times.

A sludge facility serving a population of 40,000 would be handling about 460 tons per month of sludge. If we round this up to 500 tons per month and figure in enough bulking agent to maintain a 4:1 sludge to bulking agent ratio by weight, a figure of 625 tons per month is arrived at for what might be called a Class C sludge processing facility. Similarly, the Class B facility would be more realistically capped at 2,000 tons per month, and the Class A facility would be more realistically capped at 6,000 tons per month.

I would recommend creating categories of sludge processing facilities that more accurately reflect the per person generation rate of sludge, and do not allow the inclusion of mixed solid waste in the operation. Different designations than the Class A, B, C, such as Class I, II and III would avoid confusion.

Those facilities handling mixed solid waste and sewage sludge should be given a separate status. This is probably already provided for in the landfill and mixed waste processing facility designations.

Storage

Storage is not defined or addressed adequately in these or the 503 regulations. There should be a time beyond which storage of sludge should be considered disposal. There should also be requirements for the storage of sewage sludge. This would vary according to a site's ability to handle the sewage sludge. It would seem reasonable that sewage sludge could not be stored directly on the ground at a land application site for as long as it could be stored at a processing facility equipped with a pad, or liner, or tanks, or a roofed area.

There should also be more strict storage requirements for unstabilized sludge. I offer the following: "Compost piles or windrows shall be constructed within one day following receipt of compostable material at the facility." Similar requirements could be promulgated for processes other than composting.

One year is long enough to be an absolute maximum storage time, and only for processed/stabilized sludge that is stored in such a manner that it is protected from rain and surface water, and that leachate from the sludge can be collected.

Septage should not be stored except within a tank, and then for only a short time such as overnight to two days.

Sludge should not be stored at a land application site beyond the end of the day that it arrives, unless some type of storage provisions are made such as a pad, liner, diversion ditches, and/or roof, or in a tank. In no event shall sludge be stored at an application site over one week, and in no event shall more sludge be stored on a site than is intended/allowed to be land applied.

Exemptions/variances

There are exemptions/variations throughout the rule, and they are too wide open. There should be some mechanism for the DEP to approve/deny/revoke them, and there should be provisions that the DEP give the rationale for granting exemptions and provisions for public notification and comment period when exemptions are applied for. In determining whether to grant a variance/exemption, it should be required that the DEP determine that no substantial health hazard is likely to occur. Also a provision that any variance granted will automatically expire after a predetermined time span, such as on December 31 of the calendar year in which it is granted. Following are some of my major specific concerns relative to exemptions/variances:

- 503.10(b)(1) says "The general requirements in §503.12 and the management practices in §503.14 do not apply when bulk sewage sludge is applied to the land if the bulk sewage sludge meets the pollutant concentrations in §503.13(b)(3), the Class A pathogen requirements in §503.32(a), and one of the vector attraction reduction requirements in §503.33(b)(1) through (b)(8)."

The basic idea is that "clean" sludge does not have to jump through the same hoops as "dirty" sludge. I find 503.10(b)(1) objectionable on several counts:

1. the pollutant concentrations in §503.13(b)(3) do not constitute "clean" sludge. West Virginia Code §20-5F-2(b)(6) requires "That no person or entity be allowed to apply sewage sludge to land in a manner that will result in exceeding the maximum soil concentration for all pollutants . . ." The 503 loading rates are not tied to existing soil concentrations in any way, which is contrary to the intent of S. B. 288. I have enclosed a table showing allowable concentrations for compost that Ontario and British Columbia have developed. When the Ontario concentrations, which are based on the average metals concentrations in rural soils, are examined, it becomes clear that the 503 numbers are not protective of existing soil conditions. Therefore, to base any exemptions on the pollutant concentrations in the 503 rule is misguided.

2. Regardless of which concentration numbers are used, the general requirements and sound management practices should be observed in all cases. Many of the informational requirements relative to reporting, labeling and notification are in these requirements. It is not possible to regulate a sludge program if applicators are not required to notify the permitting authority of their activities. While the management practices in 503.14 are

minimal, the idea that such basic practices as not applying sludge to floodplains, wetlands, on frozen ground, within certain distances of water, that practices such as requiring a label on sludge sold for land application, can be completely ignored without even receiving consideration from the permitting authority or the public, is unacceptable.

The exemption that 503.10(b)(1) provides is detrimental to the intent of S. B. 288 and the language should be stricken from any regulation that West Virginia promulgates concerning sewage sludge.

- 503.16(a)(2) authorizes the permitting authority to roll back the frequency of monitoring. This is based on the assumption that the facility would be receiving sludge from the same source(s) and there would emerge a pattern of consistency over a period of time. However, it would be helpful if this assumption was spelled out. Also, it should be stated that any time a facility receives sludge from a new source, the monitoring requirements would start anew.

- The 38D rule, in 3.3.1.c, allows for a facility to be constructed in the 100 year flood plain if ". . . provisions have been made to prevent the encroachment of flood waters upon the facility." It is not a good idea to site a solid waste facility in the 100 year flood plain, especially if it is one that handles mixed solid waste. Even if there are circumstances where it may be appropriate, there is no provision that the applicant petition for the variance or that the DEP has to evaluate the proposal, inspect the site, or that the DEP has the power to deny the variance. I recommend that the proviso be dropped.

Siting restrictions and location standards

Almost all these standards are inadequate when compared to other states' and are not protective of surface or groundwater or soil health. I submit the following:

Sewage sludge or septage must not be applied on snow, frozen or saturated ground, or during rainfall.

Land within 300 feet of surface water to include springs, ponds, wetlands, or other collection points for surface water.

Land within 1000 feet of drinking water supply wells or other personal water supply.

Land within 600 feet of an occupied dwelling when the owner's consent is obtained in writing, 1,000 feet when the owner's consent is not obtained.

Land that has tested and determined to have a pH of less than 6.5.

Land that has a slope greater than 15%. Land that has a slope greater than 6% but less than 15% may be approved for the surface application of sludge only when it can be shown that there is sufficient vegetation or vegetative residue to prevent ponding, runoff and other nuisances. The application equipment must be capable of uniformly applying the sludge on the slope to prevent ponding, runoff and other nuisances.

Land that has less than 36 inches of soil over bedrock or an impervious pan.

The restriction presented in §47-38D-3.2.1.1 is completely contrary to the intent and language of S.B. 288. West Virginia Code §20-5F-2(b)(6) requires "That no person or entity be allowed to apply sewage sludge to land in a manner that will result in exceeding the maximum soil concentration for all pollutants . . ." The 503 loading rates are not tied to existing soil concentrations in any way. I have enclosed a table showing allowable concentrations for compost that Ontario and British Columbia have developed. When the Ontario concentrations, which are based on the average metals concentrations in rural soils, are examined, it becomes clear that the 503 numbers are not protective of existing soil conditions, nor do they implement the intent or language of §20-5F-2(b)(6).

The Ontario numbers or the British Columbia numbers would satisfy the requirements of §20-5F-2(b)(6) much more so than would the 503 numbers, and I recommend that they be used.

POTW liner requirements

The liner requirements described in §47-38D-3.3.1.d. are inappropriate and prohibitive for the many small POTWs in the state. To have just this one liner requirement will force the smaller POTWs to use the services of a landfill or large commercial sludge processing facility. This will be expensive also, due to transportation costs and tipping and assessment fees, and erode the affected communities' self sufficiency.

By way of example, the Charleston POTW generates about 420 tons per month of sludge. This is one of the larger facilities in the state and is probably capable of complying with the proposed requirement. Most POTWs

in the state are considerably smaller. New Martinsville (pop. 6,000) generates 50 tons per month at 56% solids. Based on the New Martinsville figures, Grantsville (pop. 800) generates 6.5 tons per month at 56% solids. I don't know where to determine the cutoff point, but there has to be allowances made for small quantity generators, it is certainly not an uncommon feature in our state regulations. Such quantities as 6.5 tons per month certainly don't pose the environmental hazard that large quantities do. A spill at such a facility would be comparable to a land application. A reasonable liner for small POTWs would be concrete or asphalt over a clay or bentonite subbase. A 2 to 5% slope to a system of ditches for leachate collection. The requirement for 6 inches of reinforced concrete is only necessary to accommodate the concentrated weights that are encountered with unloading large trucks at commercial facilities. A small POTW processing its own sludge on site would not need the 6 inches of concrete for the processing area since there would not be large trucks delivering sludge. Perhaps a 6 inch pad for loading would be in order at some facilities that would require large trucks to haul the processed sludge away. Any such variances aimed at smaller facilities should prohibit the processing of mixed solid waste.

Applicability of permits

The language in §47-38D-4.1.3 is almost word for word the same language that was in the bill drafted by the DEP when it was first introduced during the 1993 regular session. That language was intentionally dropped from both the House bill and the Senate bill because it was viewed as a vehicle to grandfather in commercial sludge processing operations that had not undergone the pre-siting and siting requirements of the West Virginia Code. The House and the Senate both passed resolutions in reaction to the massive amounts of sludge that were being processed by commercial operations that had not undergone the siting and public approval requirements of the West Virginia Code. The fact that this language has been put into this rule demonstrates a blatant disregard for the Legislature of the State of West Virginia.

The way that 4.1.3 is worded, a solid waste facility handling relatively "benign" portions of the waste stream, such as a materials recovery facility or a yard waste composting facility, could handle sewage sludge just by filing a management plan. There is not even a provision that the plan needs to be approved by anyone! It is clear that in such instances, a certificate of site approval should be obtained, a Certificate of Need should be obtained, the site should be in a zone authorized by the local authority's siting plan for the operation, the public should be notified and have the opportunity for

comment and a hearing, and all other siting and permitting requirements provided for in the Code be should be met. If existing facilities are to process sewage sludge as a part of the existing solid waste permit, then it should be as a major modification which shall require submission of a new permit application subject to all the siting and permitting requirements of the West Virginia Code.

Bonding

Bonding for the processing facilities is covered in Section 3.13 of the Title 47 Series 38 rule. However, bonding for land application projects is not addressed at all in this rule except perhaps through the mechanism of the environmental remediation fee mentioned in 6.3.1. This mechanism appears to have the effect of making the DEP responsible for the environmental remediation. That is unacceptable; the idea is to make the party responsible for the pollution responsible for the remediation, not the taxpayers.

The fact that §20-5F-2b(b)(5) uses the words "may require a surety bond" indicates that there is to be some flexibility in the requirement of the bond. It is understood that such bonding is difficult to get, and it was not the intent of the legislature to require it of operations that are not likely to result in environmental degradation. With pollutant concentrations that truly implement the intent of §20-5F-2b(b)(6), such as the ones I have submitted herein, and with the agronomic rate requirement in 2b(b)(7), I would think that most land applications of the type and size currently being performed by POTWs would not be required to post a bond. The type of operation requiring bonding would be one that is more likely to threaten ground or surface water, soil health and the public health and safety. Such an operation would have the following characteristics:

* large applications of sludges,

* higher contaminant levels, such as British Columbia Concentration Codes 3 and 4, or Ontario's controlled-compost class for restricted use,

* involve applications above the agronomic rate, such as the rates up to 25 tons per acre per year that are allowed in the reclamation of surface mine land,

* involve sewage sludges that were processed with mixed solid waste,

* involve slopes between 6 and 15 percent

The bonding language from Title 47 Series 38, section 3.13 could be used with some minimal changes:

Title 47, Series 38, section 3.13.2.a could read "All bonds must be submitted under the requirements of these regulations on a form prepared and furnished by the director, must be made payable to the State of West Virginia, and must provide for continuous liability from the initiation of operations at the ~~facility~~ land application site for the full term of the ~~permit~~ operation and for up to ~~ten (10)~~ five (5) years after ~~final closure of the permit~~ operations have been concluded at the land application site. Any further time period necessary to achieve compliance with the requirements in the closure plan of the permit shall be considered an additional liability period."

Title 47, Series 38, section 3.13.13. could be reworded to reflect the amounts required for land application sites. I suggest a minimum of $50,000 and an amount of from one thousand to four thousand dollars ($1,000 to $4,000) per acre at the discretion of the director.

Fees

I have expressed my concerns over the remediation fee in the discussion of bonding, above. I feel the remediation fee as presented in §47-38D-6.3.1 should be eliminated in favor of the bonding that S. B. 288 contemplated.

The language in §47-38D-6.3.2 should be amended so that the fee is collected from the actual tons that are land applied.

§47-38D-6.3.3. places the fees collected from sewage sludge in the Solid Waste Enforcement Fund. The language in S. B. 288 states that "All sewage sludge . . . . be subject to the same tipping and other fees levied by this chapter. . ." There is no stipulation in the code that the solid waste assessment fees, the recycling assessment fee, and the solid and hazardous waste supplemental assessment fee all be deposited in the Solid Waste Enforcement Fund in the case of sewage sludge. It is clear that since sewage sludge is solid waste and subject to the "same .... fees" levied by chapter twenty on the disposal of solid waste, that these fees collected from sewage sludge be handled the same as the fees from other solid waste. The code is quite clear on how these fees are dedicated, and they are not all dedicated exclusively to the Solid Waste Enforcement Fund. I refer the reader to §20-5F-5a, §20-5N-4, §20-11-5a, and §20-11-5b. The way that §47-38D-6.3.3.3 is worded, funds are erroneously diverted from other programs. The section should be amended to accurately reflect the code.

This point aside, §47-38D-6.3.3.3 is still not clear. This section is where the intent of §20-5F-2b(e) must be implemented. That section of the code has been difficult to interpret since its drafting, but this rule does nothing to clarify how the DEP is going to implement it.

I was present at the legislature during the regular session and one of my primary focuses was the sludge bill. It was my perception that no party intended for Publicly Owned Treatment Plants (POTWs) to be considered and treated as solid waste facilities. The definition of Solid waste facility mentions "sewage sludge processing facilities", and "sewage sludge processing facilities" are defined as solid waste facilities, but a POTW is the generator of the sludge, not necessarily the processor. In the event that a POTW does process sludge, this is addressed in the definition of Composting facility by the language that states ". . . but does not include a facility for composting solid waste that is located at the site where the waste was generated." This language was put there for the express purpose of accommodating POTWs. Section 2b (c) further addresses this issue by allowing a POTW to have a sewage sludge processing permit as part of its NPDES permit and file a sludge management plan.

All sewage sludge received by a solid waste facility processing sewage sludge (except for POTWs processing on-site) should be subject to tipping and disposal assessment fees and be included in that facility's tonnage. At the time when sewage sludge that is intended for land application is actually land applied, then the facility could be credited for the disposal assessment fees. This should be less of a paperwork problem than waiting until a batch of sludge is processed and tests indicate that it is fit for land application before counting, or charging for, the sludge at all.

§20-5F-2b(12) provides that "The fee schedule shall vary according to the volume of materials handled and the contaminant level of the sewage sludge . . ." This proviso was crafted not only to encourage the production of a "clean" material, but to accommodate the smaller POTWs. This provision has been completely ignored in the 38D rule.

The material would still be included in the facility's tonnage, because in West Virginia a solid waste facility is defined according to how much solid waste it handles (see definition of Class A facility). Whether a sludge processing facility disposes of the product in a landfill, or markets all the finished product for land application, does not change the fact that the facility handled the tonnage that arrived at its gate.

As far as tipping fees are concerned, Section 2b (e) is confusing in that it seems to consider a tipping fee as something that is levied by Chapter Twenty of the Code. It is my understanding that a tipping fee is what the facility charges to meet its overhead and make a profit. If a sewage sludge processing facility has to charge a tipping fee in order to do business, it will be in big trouble if it has to refund that fee when the processed sludge is land applied. If the sludge processing facility is part of a landfill operation, then the facility should credit the customer for the portion of the fees that would have covered the placing of the sludge in a disposal cell. Or perhaps there could be a separate tipping fee for the processing of sewage sludge that would be charged when the material arrives at the facility, and the disposal tipping fee could be charged if and when the material is landfilled. In any case, the rates that a facility can charge are regulated by the PSC, and that is not provided for in Chapter Twenty. Has the PSC been consulted in the promulgation of this rule? If there is to be any regulation of tipping fees as a result of S. B. 288, it would seem that it would be the responsibility of the PSC.

Standards for application

The 38D rule has no operational standards for land application, which is a glaring deficiency. I propose the following:

1. Sludge shall not be held over-night or stockpiled at any site where application is planned. or . . . Sludge that is to be stored overnight at an application site shall be contained in a transfer-storage tank or day tank. In no event shall sludge be stored at an application site over one week.

2. Sludge must be incorporated into the soil as it is applied, or it may be applied onto recently plowed soil and be disced into the soil within twenty-four hours.

3. There shall be no application of sludge by spray irrigation except by special permit issued by the Chief showing that no substantial health hazard is likely to occur and unnecessary hardship will otherwise result.

4. There shall be no application of sludge except during the hours of daylight.

5. Entrances and exits to any field or tract of land on any site shall not be made through a roadside ditch.

6. All vehicles used for transporting sludge shall be so constructed and operated as to avoid spillage or discharge onto public roads. Any spillage which may occur on any roadway will be cleaned daily.

7. Haulers must maintain their vehicles so that there is not "track-on" to roadways, no spillage, and their appearance does not create a nuisance.

8. Public access to the land application site is prohibited for at least 12 months after the last application of sewage sludge or septage, and must be controlled during that period by the use of fences and gates, signs or posted signs. Dairy cattle must not graze for at least 12 months after the last application and other animals, excluding wild game, must not graze for at least two months after the last application.

9. Land application is permitted only when the beneficial value of the sewage sludge or septage as a supply of nutrients or as a soil conditioner can be demonstrated.

10. No sewage sludge may be disposed or applied so as to adversely affect the food chain, cause a health hazard, cause odors or allow vectors.

11. No crop for direct human consumption may be grown on sewage sludge or septage amended soil.

12. Tobacco may not be grown on sewage sludge or septage amended soil.

13. The DEP may revoke the applicator's permit for non-compliance or if a health hazard arises.

Miscellaneous

The incorporation of the Federal regulations 40 CFR part 503 is inappropriate and unwieldy for several reasons:

1. The part 503 rule was not supplied with the series 38D rule for public comment, so the public did not get a chance to really see what is being promulgated. There can be no effective comment on a rule that one has not seen.

2. S.B. 288 has many provisions that require the West Virginia rule to be more stringent than the federal rule. The incorporation of the 503 rule in full undermines the intent of the legislature.

3. The appropriate provisions of the 503 rule should be written into one regulation along with the 38D rule. This would avoid a lot of inconsistency and confusion as well as comply with the provisions of Title 153 Series 6 Standard Size and Format for Rules and Procedures for Publication of the State Register or Parts of the State Register.

§47-38D-4.1.4 defines surface disposal sites as "landfills" that must meet all requirements of Title 47, Series 38 applicable to landfills. This is fine as far as it goes, but in that case, the entire Subpart C of Part 503 should be deleted. Also, as a landfill, they should be subject not only to the Title 47 Series 38 rule, but all the relevant requirements of Chapters twenty and twenty-four.

§47-38D-4.1.2 leaves out the provision in §20-5F-2b(c) that the sewage sludge management plan be approved by the chief. This provision should be in the rule.

§47-38D-4.2.3.n. requires that soil pH be 6.2. This should be changed to 6.5. Every presentation I have heard concerning land application, whether it was given by proponents or opponents of the practice, has specified a pH of 6.5. New York and Pennsylvania both specify a pH of 6.5. That is the number we should use.

There should be language in the rule that exempts individual septic tank owners from the provisions of the rule.

There should be language in the rule that exempts farmers applying sludge in amounts below a specified level on their own farms from paying a fee and perhaps certain other provisions.

This rule and its concomitant incorporation of the 503 rule fails to implement the intent of S. B. 288 in so many ways, as I have noted in my comments, and is generally deficient in so many areas, that the DEP should withdraw this rule and promulgate one that will truly implement the intent of the legislature. With all due respect, I submit that with reference to the land application program, the Office of Waste Management does not have sufficient knowledge to promulgate rules or administer a program. Yet the Chief of the Office of Waste Management seems to have primacy over the program. The West Virginia Sewage Sludge Program: Use and Disposal of Municipal Wastewater Sludge, while it needs strengthening and funding, is a better foundation for a land application rule than is the 503 rule. The knowledge and expertise of the Office of Water Resources, the Office of Air Quality, WVU, the PSC, soil scientists, the Department of Agriculture, the

Solid Waste Management Board, the environmental community as well as representatives of the general public should be utilized in drafting a set of regulations that will truly provide for the efficient and necessary regulation of sewage sludge in West Virginia. If this rule is filed as it is, it will not protect us from the emergency that the legislature has declared, rather it will exacerbate the emergency.

This concludes my comments on the Series 47 Title 38D and the Federal regulation 40 CFR part 503 regulations.

Sincerely,

Tom Degen, member
Solid Waste Interagency
Coordinating Committee and
Composting Regulations Review Team

cc: Senator David Grubb
Delegate Brian Gallagher
Senator Don McNaughton
Ken Hechler, Secretary of State
Norm Steenstra, environmental coordinator, Citizens Action Group

TABLE 2: Metals and PCB Concentrations for MSW Compost in Ontario, British Columbia

	CONCENTRATION (mg/kg dry mass)				
	ONTARIO	BRITISH COLUMBIA CODE			
		# 1	# 2	#3	# 4
ARSENIC	≤ 10	≤ 13	> 13-30	> 30-50	> 50
CADMIUM	≤ 3	≤ 2.6	>2.6-10	> 10-20	> 20
CHROMIUM	≤ 50	≤ 210	>210-500	>500-800	>800
COBALT	≤ 25	≤ 26	> 26-100	>100-300	>300
COPPER	≤ 100	≤ 100	>100-300	>250-500	>500
LEAD	≤ 150	≤ 150	>150-500	>500-1000	>1000
MERCURY	≤ 0.15	≤ 0.83	>0.83-5	> 5-10	> 10
MOLYBDENUM	≤ 2	≤ 7	> 7-20	> 20-40	> 40
NICKEL	≤ 60	≤ 50	> 50-200	>200-500	>500
SELENIUM	≤ 2	≤ 2.6	>2.6-6	> 6-10	> 10
ZINC	≤ 500	≤ 315	>315-800	>800-1500	>1500
PCB	≤ 0.5	--	--	--	--

The maximum allowable metals concentrations for Ontario are based on the average metals concentrations in rural soils which are adjusted for desirable micronutrients. For example, the allowable zinc concentration was increased from 220 to 500 ppm because most soils are zinc deficient. At the moment Ontario has only the one class of MSW compost which can be used on an unrestricted basis; however, a controlled-compost class for restricted use is being considered. Some allowable metals concentrations for this class were increased as follows: arsenic becomes 20 ppm, cadmium 4, copper 100, lead 500, mercury 0.5, and molybdenum 3 (MOE, 1991).

British Columbia has proposed the use of the six classifications of MSW compost listed in Table 3 along with the use restrictions outlined in Table 4. Definitions of mature, semi-mature and fresh compost are provided in the British Columbia guidelines. Maximum acceptable cumulative limits of heavy metals applied to soils within a 45 year period were also established. If any one of the metal concentrations is exceeded, the compost falls in the next lower classification.

TABLE 3: Summary of British Columbia Compost Quality Classifications.

COMPOST TYPE	SS	A	B	C	D	E
METAL CONCENTRATION CODE	1	1	1 OR 2	1, 2 OR 3	1, 2 OR 3	4
FEEDSTOCK	SS	MSW	MSW	MSW	YW SS MSW	MSW
MATURITY	Mature, Semi-mature	Mature	Mature, Semi-mature	Mature, Semi-mature	Fresh	N/A
FOREIGN MATTER	$\leq$ 1%	$\leq$ 1%	$\leq$ 2%	$\leq$ 10%	$\leq$ 10%	N/A
WATER CONTENT	$\leq$ 50%	$\leq$ 50%	$\leq$ 50%	$\leq$ 50%	N/A	N/A

MSW: Municipal Solid Waste; SS: Source Separated Waste; YW: Yard Waste.

TABLE 4: Summary of British Columbia Compost Use Restrictions by Classification.

CLASSIFICATION	RESTRICTIONS
SS and A	Unrestricted Distribution
B	Non-Food Applications: parks, forested lands, forest and horticultural nursery industry
C	Non-Food Applications: parks, forested lands, forest and horticultural nursery industry
D	Land Reclamation Projects with Limited Potential for Public Contact
E	Disposed of in Landfill

PART 503 NUMERICAL CRITERIA FOR LAND APPLICATION

ELEMENT	CUMULATIVE LOAD (kg/ha)	APL (Clean Sludge) (mg/kg)	APLR (kg/ha/yr)
Arsenic	41	41	2.0
Cadmium	39	39	1.9
Chromium	3,000	1,200	150
Copper	1,500	1,500	75
Lead	300	300	15
Mercury	17	17	0.85
Molybdenum	18	18	0.90
Nickel	420	420	21
Selenium	100	36	5.0
Zinc	2,800	2,800	140

APL - Annual Pollutant Load
APLR - Annual Pollutant Loading Rate

FILED

6-24-1993

Secretary of State Ken Hechler
State Capitol Complex
Charleston, WV 25305

Dear Secretary Hechler:

My colleagues and I have spent the past several weeks examining the state's newly promulgated Series 38D regulations, prepared pursuant to SB 288, the sewage sludge regulation bill passed during this year's regular legislative session. During this time, we have grown increasingly alarmed at the degree to which the proposed regulations fail to comply with the policy guidelines established by SB 288.

The disparity between these regulations and the new state law is such that we feel to obligated to request that you consider exercising your power, as granted by West Virginia Code, to refuse to approve emergency regulations or parts thereof.

We thank you for your time and consideration.

Sincerely,

Jedediah S. Purdy

Jed Purdy.

WEST VIRGINIA-CITIZEN ACTION GROUP
1324 VIRGINIA STREET, EAST • CHARLESTON, WEST VIRGINIA 25301 • 304-346-5891

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1. Our first concern is that the DEP incorporates into the Series 38D regulations, wholesale and by reference, the federal Series 40, Part 503 regulations. While this EPA document does provide certain language that might be usefully synthesized with state-promulgated regulations to produce a comprehensive regulatory package, the union of 503 with the 38D draft regulations produces a package rife with contradiction and noncompliance with code. As described in greater detail below, SB 288 proscribes dedicated sewage sludge disposal sites, while the 503 regulations permit them; 288 mandates that maximum levels in land-applied sewage sludge be compatible with background metals levels in the recipient soil, whereas the 503 regulations explicitly ignore background levels; 288 enumerates an impressive list of reporting requirements, few of which are present in the 503 reporting section. These egregious examples serve only to highlight a few of the many contradictory points that demonstrate the 503 regulations, when taken indiscriminately, to be incompatible with state policy.

2. SB 288 (now state code), 20-5F-2b (e), provides that, "...no land within a solid waste facility, but outside a landfill disposal cell, be allowed to accept the permanent application of so much sewage sludge as to exceed the agronomic rate or fifteen dry tons per acre per year, whichever is less:". This language is intended to proscribe so-called "dedicated sites", on which large quantities of sludge are land-applied within a solid waste facility, but outside of the facility's landfill cell. This practice, governed by environmental protection requirements less stringent than those that apply to landfilling, results in both an overload of soil with metals and nitrogen and the transmission of these substances to ground and surface water.

In contrast, WV regulatory code, 47-38D-3.2.3, reads, "No land, except a solid waste facility, shall be allowed to accept or store so much sewage sludge as to exceed the agronomic rate or a rate of fifteen dry tons per year, whichever is less..." Furthermore, the fully incorporated federal regulations, 503.23(b)(1), explicitly allow dedicated sites within such facilities by the following language: "At the time of permit application, the owner/operator of a surface disposal site may request site-specific pollutant limits in accordance with 503.23(b)(2) for an active sewage sludge unit without a liner and leachate collection system . . . when the permitting authority determines that site-specific pollutant limits are appropriate for the active sewage sludge units." In combination, these regulations encourage precisely the practice which the legislature intended to end by the passage of SB 288.

3. SB 288, 20-5F-2b (b) (6) mandates that the regulations at issue require, "That no person or entity be allowed to apply sewage sludge to land in a manner that will result in exceeding the maximum soil concentration for all pollutants, including, but not limited to, arsenic, cadmium, chromium, copper, lead, mercury, molybdenum, nickel, selenium and zinc...." The intent of this language is to safeguard soil quality by ensuring that calculations of the maximum acceptable quantities of pollutants that may be land-applied without exceeding safe limits of cumulative soil pollutant contents incorporate the background levels of those pollutants in the soil. The legislature meant thereby to control the total concentration of pollutants in any soil to which sewage sludge is applied, rather than merely the quantities added to pre-existing levels..

47-38D-3.2.2., addresses this issue through incorporation of the federal 40 CFR Part 503 regulations, stating simply that, "No person or entity shall be allowed to apply sewage sludge to land in a manner that will result in exceeding the maximum soil concentration for all pollutants, including, but not limited to, arsenic, cadmium, chromium, copper, lead, mercury, molybdenum, nickel, selenium and zinc, to be determined upon cumulative loading rates of 40 CFR, 503.13(b)(2) and 503.12(e)(2).

By incorporation of the 40 CFR Part 503 regulations, the DEP includes the following language, from 503.12(e)(1)(ii): "If bulk sewage sludge subject to the cumulative pollutant loading rates in 503.13(b)(2) has not been applied to the site since [insert 120 days after the effective date of this part], the cumulative amount for each pollutant listed in Table 2 of 503.13 may be applied to the site in accordance with 503.13(a)(2)(i)." This language, in combination with the absence of any reference to background levels elsewhere in 40 CFR Part 503, assumes the background levels of all pollutants to be zero. Thus, the regulations control not the total pollutant concentration of the soil, but only the total quantity of pollutants applied to the soil after these regulations take effect. This effect diverges radically from legislative intent.

4. SB 288, 20-5F-2b(e) declares that, "All sewage sludge placed in, or upon, or used by a solid waste facility or processed or handled, pursuant to a permit issued by the division of environmental protection, shall be subject to the same tipping and other levied by this chapter on the disposal of solid waste and shall be included in said facility's total tonnage...." After revision by a subsequent proviso, this language still clearly requires that all sewage sludge land-applied or landfilled within a solid waste facility be subject to solid waste tipping fees.

Similarly, SB 288, levies fees on the production and import of sewage sludge as follows. "20-5F-2b(b)(12) That a fee, to be paid by the producer or importer, be levied and imposed on the land application of sewage sludge, to be collected at a per ton rate, sufficient to cover the costs of the sewage sludge management program."

The Series 38 regulations are clearly intended to reflect these intentions, but are crafted in such a way as to make their effect uncertain. According to 47-38D-6.1, which precedes the enumeration of the above-mandated fees, "Any person required to obtain a solid waste facility permit, pursuant to these regulations, shall be subject to non-refundable fees, as described herein, which shall be used to cover the costs of future environmental remediation."

By altering the criteria by which the fees are applied from "a permit issued by the division of environmental protection" and "by the producer or importer . . . on the land application of sewage sludge" to "a solid waste facility permit . . . pursuant to these regulations", the authors seem to have inadvertently opened a significant loophole. 47-38D-4.1.3, in the portion of the regulations dealing with permit requirements, reads, "For those sewage sludge processing facilities which are located on or within a facility regulated by the division pursuant to a solid waste permit required under Chapter 20, Article 5F, a sewage sludge processing facility modification will be obtained by the applicant as a part of the existing solid waste permit and shall include a sewage sludge management plan."

Almost identically, state regulation 47-38D-4.1.2 reads, "For those publicly owned treatment works (POTW) which produce sewage sludge and are regulated by the division pursuant to an WV/NPDES permit required under Chapter 20, Article 5A, a sewage sludge processing facility modification will be obtained by the applicant as a part of the existing WV/NPDES permit and shall include a sewage sludge management plan."

As neither of these facilities' permits is not replaced as a result of 38D's new language, but simply modified (In fact, POTW's do not even hold solid waste facility permits), neither is therefore "issued pursuant to these regulations".

This seemingly arcane point might well prove the source of many headaches if POTW's and landfill operators with extant permits were to read into it an exemption from assessment fees and defend their interpretation in court.

5. SB 288, 20-5F-2b(b)(8), mandates that the resultant regulations ensure, "That information relating to the disposal of sewage sludge is available to affected communities." Although they contain requirements that tonnage and pollutant contents be reported to local solid waste authorities, neither the Part 503 nor the Series 38D regulations make any reference to the dissemination of information to the public.

We offer the following suggestion to bring the Series 38 regulations into keeping with SB 288: require that public notice be given locally and a comment period established prior to the commencement of any land application of sewage sludge or sewage sludge composting program; if the response (in the form of comments) demonstrates considerable public interest, hold a minimum of one public hearing on the project. This mechanism would allow informed public input in the presence of genuine interest, but would not unduly burden the DEP and/or applicators by requiring extensive educational or opinion-gathering efforts in areas where public interest in such projects is small or nonexistent.

6. SB 288, 20-5F-2b(b)(1), stipulates, "That entities either producing sewage sludge within the state or importing sewage sludge into the state are required to report to the division the following:

(i) The specific source of the sewage sludge

(ii) The amount of sewage sludge actually generated or imported

(iii) The content of heavy metals, pathogens, toxins or vectors present in the sewage sludge; and

(iv) Each location that the sewage sludge is stored, land applied or otherwise disposed of; the amount so stored, land applied or otherwise disposed of; and the capacity of that location to accept sewage sludge.

The state regulations repeat these data categories in 47-38-4.2.1 and 4.2.2, 5.1.1, and 5.2.2. but as information mandated only to appear in permit applications or be provided for in newly issued permits. The only reporting requirements that would affect existing sludge processing facilities appear in Series 40 503.27 and 503.28, and read as follows. "(a) When sewage sludge is placed on an active sludge unit: (1) The person who prepares the sewage sludge shall develop the following information and shall retain the information for five years.

(i) The concentration of each pollutant listed in table 1 of 503.23 in the sewage sludge when the pollutant concentrations in table 1 of 503.23 are met.

(ii) The following certification statement: `I certify, under penalty of law, that the pathogen requirements in [insert 503.32 (a), 503.32 (b), 503.32(b)(3), or 503.32(b)(4) when one of those requirements is met] and the vector attraction reduction requirements in [insert one of the vector attraction reduction requirements in 503.33(b)(1) through 503.33(b)(8) when one of those requirements is met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine the [pathogen requirements and vector attraction reduction requirements if appropriate] have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.'

(iii) A description of how the pathogen requirements in 503.32(a), 503.32(b)(3), or 503.32(b)(4) are met when one of those requirements is met.

(iv) A description of how one of the vector attraction reduction requirements in 503.33(b)(1) through 503.33(b)(8) is met.

(2)

The owner operator of the surface disposal site shall develop the following information and shall retain that information for five years.

(i) The concentration of each pollutant listed in Table 2 of 503.23 in the sewage sludge when the pollutant concentrations in Table 2 of 503.23 are met or when site-specific pollutant limits in 503.23(b) are met.

(ii) The following certification statement:

`I certify, under penalty of law, that the management practices in 503.24 and the vector attraction reduction requirement in [insert one of the requirements in 503.33(b)(9) through 503.33(b)(11) if one of those requirements is met] have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the management practices [and the vector attraction reduction requirements if appropriate] have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.'

(iii) A description of how the management practices in 503.24 are met.

(iv) A description of how the vector attraction reduction requirements in 503.33(b)(9) through 503.33(b)(11) are met if one of those requirements is met. . . .

503.28 Reporting

(a) Class I sewage sludge facilities . . . shall submit the information in 503.27(a) to the permitting authority on [insert the month and day from the date of publication of this part] of each year."

This language ignores completely the mandates of SB 288, 20-5F-2b(b)(1)(i), (ii), and (iv). Furthermore, it fails to satisfy fully the requirement of 20-5F-2b(b)(1)(iii), as the pollutants listed in Table 2 of 503.23 are only arsenic, chromium, and nickel. This list is far from an exhaustive enumeration of heavy metals, among which SB 288, 20-5F-2b(b)(6) includes both the above and cadmium, copper, lead, mercury, molybdenum, selenium, and zinc. Furthermore , this list fails utterly to comply with 20-5F-2b(b)(1)(iii)'s dictate that the quantity on pathogens, toxins, and vectors in the sludge be reported. In short, the regulations make virtually no effort at meeting the reporting requirements contained within SB 288.

The dangers of these omissions are fairly obvious. Without knowledge of the source of sewage sludge, the DEP cannot contact officials in the sludge's state of origin to ascertain the production processes and corroborate quality assessments of the sludge. Absent reporting of the total tonnage of sludge imported, the division cannot ensure that assessment and land application fees are paid commensurate to the quantity of sludge actually brought into the state. Lacking descriptions of the specific location of sludge within a facility, DEP cannot adequately enforce storage guidelines or confirm that use of illegal dedicated sites is not taking place. Finally, without data detailing the pollutant, toxin, pathogen, and vector contents of imported sewage sludge, the division simply cannot safeguard soil quality or public health.

22 July 1993

Administrative Law Division
Office of the Secretary of State
Suite 157-K
Capitol Building
Charleston WV 25305

Having attended only last week in Braxton County yet another public hearing on the Meadows landfill and its proposed takeover and expansion by New Jersey garbage haulers, I can only view with alarm the role the DEP has assumed. Watching the stoical, frozen faces of the men as they sit through these charades of public input, we must wonder to whose drummer they march. People in Braxton County and over the state have said emphatically, over and over, and in every way they know that they do not want further exploitation of our land by opportunistic--and worse--entrepreneurs of the waste business.

So why is the press continuing?

We cannot help but wonder that support for their machinations continues to flow from the regulatory agencies and men reputedly close to the Governor. I understand that your office must approve or disapprove the proposed regulations for SB 288. By rejecting these proposed regulations and opening the way for regulations more in line with the wishes of the people and the intent of the legislature, your office can influence substantially a more acceptable public policy.

I would like to think that that is what will happen.

Sincerely,
Mary S. Black
Box 18
Stouts Mills WV 26439

FILED
Jul 27 9 15 AM '93
OFFICE OF WEST VIRGINIA SECRETARY OF STATE

Mr. and Mrs. Carl G. Rucker
Rt. 2, Box 238
New Martinsville, W.Va.
26155

7-16-93

FILED
JUL 19 9 33 AM '93
OFFICE OF WEST VIRGINIA SECRETARY OF STATE

Dear Ms. Cooper:

My husband and I do not feel that the "Sewage Sludge Management Regulations," meet the intent of the Legislature. They are clearly in violation of present state law and 'Grandfather in' everything for existing and future facilities, which is very upsetting.

We live 1½ miles from the Wetzel County Landfill and have been fighting the ever increasing influx of garbage, and now sludge, that have been seeping into our beautiful state and our own backyard, so to speak, for many years and the above mentioned Regulations are just another slap in the face.

Just this week a load of sludge was being hauled to the Wetzel County Landfill, via Pennsylvania, and while in route dumped its precious cargo onto W.Va. 2, closing it for 4 hours. The stench, as reported by many, was intolerable. I, for one, would rate it right up there with the stench emanating from our State Capitol!

In closing, Pat Mascara and his bunch are all alike and care about one thing, and one thing only - how they can make more money at the expense of other peoples health and well-being. They do not care if a truckload of sewage is dumped in New Martinsville or anywhere else for that matter, as long as they don't live there and have to breath it.

Sincerely,

(Bethany A. Rucker)

See back for sludge loads

WETZEL COUNTY LANDFILL

07/13/93
PAGE 1

DAILY ACTIVITY JOURNAL REPORT FOR
07/13/93
CUSTOMER: ALL WASTE STREAM: ALL

CUSTOMER	TRUCK	TRAILER	COUNTY	WASTE	TONS
SISTERVILLE, CITY OF	RE01		5	02 RESIDENTIAL WASTE	5.42
.W.S., INC. OF WV	FE28		6	01 COMMERCIAL WASTE	7.85
OLID WASTE SERVICES INC	TR01		113	02 RESIDENTIAL WASTE	16.89
OLID WASTE SERVICES INC	R001	OT30	128	03 INDUSTRIAL WASTE	15.46
OLID WASTE SERVICES INC	R002	OT30	128	03 INDUSTRIAL WASTE	11.26
.W.S., INC. OF WV	R056	OT30	5	03 INDUSTRIAL WASTE	6.75
.W.S., INC. OF WV	R085	OT30	3	06 ASBESTOS WASTE	8.26
ENKINS CONTRACTING #1	PU01		6	02 RESIDENTIAL WASTE	0.84
ENKINS CONTRACTING #3	RE03		6	02 RESIDENTIAL WASTE	4.30
.W.S., INC. OF WV	RE59		6	02 RESIDENTIAL WASTE	13.52
.W.S., INC. OF WV	R038	OT30	128	03 INDUSTRIAL WASTE	3.42
ISCELLANEOUS - INSHED	PU01		6	02 RESIDENTIAL WASTE	1.85
UCKEYE BUILDERS	TR01		128	04 DISPOSABLE DEMOLITI	0.62
OLID WASTE SERVICES INC	R001	OT30	128	03 INDUSTRIAL WASTE	6.90
.W.S., INC. OF WV	R085	OT30	3	03 INDUSTRIAL WASTE	14.00
ISCELLANEOUS - INSHED	PU02		5	02 RESIDENTIAL WASTE	0.40
OLID WASTE SERVICES INC	TR130	TT7538	110	02 RESIDENTIAL WASTE	23.56
OLID WASTE SERVICES INC	TR130	TT7557	110	02 RESIDENTIAL WASTE	23.71
.W.S., INC. OF WV	R079	OT30	5	02 RESIDENTIAL WASTE	1.45
.W.S., INC. OF WV	FE28		5	01 COMMERCIAL WASTE	5.35
.W.S., INC. OF WV	R038	OT30	128	03 INDUSTRIAL WASTE	5.02
.W.S., INC. OF WV	RE01		5	02 RESIDENTIAL WASTE	4.82
ISCELLANEOUS - INSHED	PU03		5	02 RESIDENTIAL WASTE	0.58
OLID WASTE SERVICES INC	TR130	TT7994	110	02 RESIDENTIAL WASTE	23.24
OLID WASTE SERVICES INC	R001	OT40	128	03 INDUSTRIAL WASTE	2.34
.W.S., INC. OF WV	R085	OT30	3	03 INDUSTRIAL WASTE	20.57
OLID WASTE SERVICES INC	TR130	TT7506	110	02 RESIDENTIAL WASTE	24.18
OY SANITATION SERVICE	TR01		6	02 RESIDENTIAL WASTE	2.54
.W.S., INC. OF WV	R079	OT30	5	03 INDUSTRIAL WASTE	2.53
.W.S., INC. OF WV	RE48		3	02 RESIDENTIAL WASTE	11.55
ISCELLANEOUS - INSHED	PU04		6	02 RESIDENTIAL WASTE	2.04
CINTIRE CARTAGE	RE02		128	02 RESIDENTIAL WASTE	8.75
OLID WASTE SERVICES INC	TR130	TT7961	110	02 RESIDENTIAL WASTE	24.96
.W.S., INC. OF WV	RE48		6	02 RESIDENTIAL WASTE	1.10
CINTIRE CARTAGE	RE01		128	02 RESIDENTIAL WASTE	7.58
	TRANSACTIONS:	35			313.61

7/13/93

Customer SWS

Truck # DT108 Mixed Compost Materials

110 Lehigh ~~Valley~~ County PA

GW 81540 lbs

Tare 34900

Net ~~44~~ 46640 lbs = 23.32 tons

C.O.D. 000

signed J Rutenz

7/13

Truck DT5 Mixed Compost Materials

110 Lehigh Co.

GW 79,340

Tare 33,100

Net 46,240 = 23.12 tons

C.O.D. 0.00

R Rudender

7/13

Truck D28 Mixed Compost Materials

Gross 81,120

Tare 34,720

46,400 = 23.20

7/13

Truck # D102 GW 78040

Lehigh Co. Tare 31,400

Net 46,640 = 23.32 Mixed Compost Materials

7/13

Truck DT104. GW 75,980

Tare 29,280

Net 46,700 Mixed Compost ~~or~~ materials

23.35

7/13 DT22 GW 78160

32380

45,780 = 22.89 Tons Mixed Compost Materials

7/13/93 DT26 GW 79,180

110 Lehigh Tare 32,360 = 23.41 Mixed Compost Material

Net 46,820

WETZEL COUNTY SOLID WASTE AUTHORITY

200 North Street, Box 9, • New Martinsville, WV 26155 • Phone: (304) 455-5262

July 13, 1993

Customer SWS
Truck # DT108 — Mixed Compost Materials
110 Lehigh County, PA

Gross WEight	81540 lbs	
Tare	34900 lbs	
Net	46640 lbs	= 23.32 tons

July 13, 1993

Truck # DT5
110 Lehigh Co. — Mixed Compost Material

Gross Weight	79340 lbs	
Tare	33100 lbs	
Net	46240 lbs	= 23.12 tons

July 13, 1993

Truck # D28 — Mixed Compost Material

Gross Weight	81120 lbs	
Tare	34720 lbs	
Net	46400 lbs	= 23.20 tons

July 13, 1993

Truck # D102 — Mixed Compost Materials

Gross Weight	78040 lbs	
Tare	31400 lbs	
Net	46640 lbs	= 23.32 tons

July 13, 1993

Truck #104 — Mixed Compost Materials

Gross Weight	75980 lbs	
Tare	29280 lbs	= 23.35 tons
Net	46700 lbs	

July 13, 1993

Truck #DV22 — Mixed Compost Materials

Gross Weight	78160 lbs	
Tare	32380 lbs	
Net	45780 lbs	= 22.89 tons

July 13, 1993

Truck # DV26 — Mixed Compost Materials

Gross Weight	79180 lbs	
Tare	32360 lbs	
Net	46820 lbs	= 23.41

100% RECYCLED PAPER

WETZEL COUNTY SOLID WASTE AUTHORITY
200 North Street, Box 9, • New Martinsville, WV 26155 • Phone: (304) 455-5262

Division of Environmental Protection
Office of Water Resources
1201 Greenbrier St.
Charleston, WV 25311
Attention: Clifton Browning

July 8, 1993

Dear Mr. Browning:

This letter is to verify our conversation this afternoon regarding the Title 47, Series 38D regulations for sewage sludge. I specifically asked you why there were no requirements spelled out for pre-existing facilities that wish to process or are currently processing sewage sludge to modify their permits. You stated that it was the official position of the Division of Environmental Protection that any site currently processing sewage sludge would be exempt from receiving any permit modifications.

When I asked if this meant there would be no opportunity for public notification or input, you stated that this was the case. I respectfully submit to you that the way the current emergency rules and regulations are written they not only perpetuate the emergency they were supposed to eliminate, they also create a loop hole that will allow any type of facility that obtains a solid waste facility permit from the Division of Environmental Protection for recycling, transfer stations, composting facilities or whatever to be exempt from any permit modifcations as well.

During our conversation, I vigorously objected to the DEP's position. Your response was that the DEP's official position was firm and they invited anyone who disagreed with their position to take them to court. The purpose of this letter is to establish for the record the true position of the Division of Environmental Protection.

Furthermore, the purpose of this letter is to clarify the position of the Wetzel County Solid Waste Authority. For the record, the Wetzel County Solid Waste Authority is of the opinion that the DEP's position on exempting any facility that holds a solid waste facility permit and is now or will in the future process sewage sludge from the provisions within the existing rules and regulations regarding major permit modifications is not only a flagrant disregard for the DEP's own rules and regulations, but also constitutes a total disregard for the legislative intent of SB 288. Current rules and regulations require a major modification of a permit to be subject to public notification and a public comment period. There is also an

option for a public hearing. Our Authority endorses public participation as a healthy perpetuation of democracy. We find it curious that the DEP shuns public notification and comment. Furthermore, our Authority finds it reprehensible that the state agency that is supposed to protect the public would prefer to go to court rather than include notification to and comment from the very public they are required by law to protect.

Sincerely,

Martha Huffman
Vice-chair
Wetzel County
Solid Waste Authority

Copies: The Honorable Governor Gaston Caperton
The Honorable Senator Don Macnaughtan
The Honorable Senator Larry Wiedebusch
The Honorable Senator John Chernenko
The Honorable Senator David Grubb
The Honorable Delegate David Pethtel
Brooke County Solid Waste Authority
Larry Harless, Esquire

City Of New Martinsville
Police Department

Carl E. Kocher
Chief of Police

TO SERVE AND PROTECT

193 Main Street
New Martinsville, W.Va. 26155
Telephone: (304) 455-9100

Mayor Richard Snyder
Members of Council:

08-02-93

Re: Sludge Spill Rt. 2 & 07-13-93.

The New Martinsville Police Investigated a Sludge Spill on Route 2 at 5-Way [illegible] Street Extension.

The driver and load were not at the location when Police arrived.

Officer Dave Byers proceeded to the Wetzel County landfill where he located the truck and driver.

Citation was issued to Randy Rickard [illegible] of the vehicle was cited for [illegible] Road. [illegible] check for citation on [illegible].

Sample of sludge was taken and [illegible] Jamie Fenske, DEP
State of WV. (See Attached findings)

Spoke to Jamie [illegible] DEP and he advised analysis of material [illegible] a violation for hauling sludges for [illegible] the load was to be used for composting and at this particular time does not constitute a violation of [illegible].

Carl E. Kocher
Carl E. Kocher
Chief of Police
NMPD

538-0900

FILED
AUG 5 10 21 AM '93
OFFICE OF WEST VIRGINIA SECRETARY OF STATE

STRAIGHT AUG 05 '93 09:38 CITY OF NEW MART. (304)-455-3442 BILL OF LADING—SHORT FORM—UNIFORM—NOT NEGOTIABLE

BY TRUCK ☐ FREIGHT ☐

RECEIVED, subject to the classifications and lawfully filed tariffs in effect on the date of the issue of this Bill of Lading, the property described below in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated below which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of, said property over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the terms and conditions of the Uniform Domestic Straight Bill of Lading set forth (1) in Uniform Freight Classification in effect on the date hereof, if this is a rail or a rail-water shipment, or (2) in the applicable motor carrier classification or tariff if this is a motor carrier shipment.

Shipper hereby certifies that he is familiar with all the terms and conditions of the said bill of lading, set forth in the classification or tariff which governs the transportation of this shipment, and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

From **LEHIGH VALLEY RECYCLING**
COPLAY, PA 18037

At (Mail or street address of consignee—for purpose of notification only.)

DATE 7/12 19 93

SHIPPER'S NO. 51626

CARRIER ↓

CARRIER'S NO.

BY SAR TRUCKING, INC. STI000

3 CONSIGNEE AND DESTINATION
WETZEL COUNTY LANDFILL
RT 1, BOX 156-A
NEW MARTINSVILLE WV

ROUTE

DELIVERING CARRIER

CAR OR VEHICLE INITIALS & NO. VARIOUS TR61 TT610

NO. PACKAGES	HAZARDOUS MATERIALS	DESCRIPTION OF ARTICLES, SPECIAL MARKS AND EXCEPTIONS	*WEIGHT (SUBJECT TO CORR.)	CLASS OR RATE	✓
		COMPOST PRODUCT - OUTBND GROSS	79760		
		TARE	27620		
		DALLAS\NORTH\O.CTY NET	52080		
			26.04		

WETZEL COUNTY LANDFILL
Rt. 1 Box 156A
New Martinsville, WV 26155
(304) 455-3800

Kay S.

Subject to Section 7 of conditions of applicable bill of lading, if the shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement.

The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

Per _____ (Signature of Consignor)

If charges are to be prepaid, write or stamp here, "To be Prepaid."

Received $ _____ to apply in prepayment of the charges on the property described hereon.

Agent or Cashier

Per _____

(The signature here acknowledges only the amounts prepaid.)

Charges Advanced:

$ _____

SHIPPERS CERTIFICATION: This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. SIGNATURE _____ TITLE _____

* If the shipment moves between two ports by a carrier by water, the law requires that the bill of lading shall state whether it is "carrier's or shipper's weight."
† Shipper's imprint in lieu of stamp; not a part of Bill of Lading approved by the Interstate Commerce Commission.
Note — Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property.
The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding _____

C.O.D. SHIPMENT
C.O.D. Amt _____
Collection Fee _____
Total Charges _____

THIS SHIPMENT IS CORRECTLY DESCRIBED.

CORRECT WEIGHT IS _____ LBS.

† The fibre boxes used for this shipment conform to the specifications set forth in the box makers certificate thereon, and all other requirements of the Consolidated Freight Classification.

Per _____ Shipper

LEHIGH VALLEY RECYCLING
Lehigh & Walnut Street, R.D. #1, Coplay, PA 18037

Shipper, Per _____ Agent, Per _____

Permanent post office address of shipper

OPF-040

1

Spoke to Jamie Jenske - DEP

7-30-93- Results of analysis showed the material was only 13% solids a violation for hauling sludges for dumping; unfortunately the load was used for composting and at this particular time does not constitute a violation.

New Martinsville Police Department
Report of Investigation
747 2nd Street
New Martinsville, W. Va. 26155

1. CASE NO. M93-07-18

2. CODE SECTION	3. CRIME	4. CLASSIFICATION	5. DATE REPORTED
	Unsecure Load	Misd.	07-13-93

6. DATE AND TIME OFFENSE OCCURRED	7. LOCATION OF OCCURRENCE	8. TIME REPORTED
07-13-93 Before 7:00AM	WV ST RT 2, Parkway & Leap Street	0701hrs

9. VICTIM'S NAME LAST, FIRST, MIDDLE	10. RESIDENCE ADDRESS	11. RES. PHONE

12. RACE - SEX	13. AGE	14. D.O.B.	15. NAME OF BUSINESS - (IF OCCURRED AT BUSINESS PLACE)	16. BUS. PHONE

17. REPORTING PARTY (OTHER THAN VICTIM)	18. AGE	19. RACE - SEX	20. RESIDENCE

21. DESCRIBE PREMISES AND AREA

22. DESCRIBE HOW OFFENSE WAS COMMITTED

SUspect #1 was driving an 86 Ford Truck south on RT 2 that was pulling a trailer full of sludge south on RT 2. When the suspect stopped for the traffic signal the load shifted spilling sludge onto RT 2 . The suspect then drove to the Wetzel County Landfill and told the pepple there what had happened. They then sent a crew to clean up the spill.

23. MOTIVE

24. DESCRIBE WEAPON - INSTRUMENT - EQUIPMENT - TRICK DEVICE - OR FORCE USED

25. TYPE OF PROPERTY TAKEN -
N/A

26. ESTIMATED LOSS VALUE

27. VICTIM'S ACTIVITY - PRIOR TO/AND/OR DURING OFFENSE

28. SUSPECT NO. 1. LAST, FIRST, MIDDLE	29. RACE - SEX	30. AGE	31. HT	32. WT.	33. HAIR	34. EYES	35. S.S. NO. OR D.O.B.	36. ARRESTED
Sickles, Randy Wayne	W M	21	5-07	175	BRN	BRN	211-54-3215	YES ☒ NO ☐
37. SUSPECT NO. 2. LAST, FIRST MIDDLE	**38. RACE - SEX**	**39. AGE**	**40. HT**	**41. WT.**	**42. HAIR**	**43. EYES**	**44. S.S. NO. OR D.O.B.**	**45. ARRESTED**
								YES ☐ NO ☐

46. SUSPECT NO 1 ADDRESS	47. SUSPECT NO. 2 ADDRESS
RD 4 Box 91 Ebensburg, PA 15931	

48. REPORTING OFFICERS	49. TYPED BY	50. DATE AND TIME	51. REVIEWED BY	52. DATE
D. Byers	M. Durant	07-13-93 1115hrs	C. E. Locke	7-13-93

53. C. I. REPORT BY	56. COMMENTS BY INVESTIGATING OFFICERS
54. DATE	Phone # (814) 472-5278
55. CLEARED BY ☒ ARREST ☐ OTHER	Class A CDL #19-431-349
	Transport Insurance Co. Policy #010711-92

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
903 Methodist Building
11th & Chapline Streets
Wheeling, WV 26003

URGENT FAX

TO: CHIEF KOCHER

TELEPHONE: 455-9100

FROM: JAMIE FENSKE, WVDEP

TELEPHONE: 238-1075

RETURN FAX: (304) 234-0259

CONFIRMATION: (304) 234-0250

COMMENTS: 7-13-93 SLUDGE SPILL
I DO HAVE SOME ADDITIONAL INFO IN THE FORM OF FIELD NOTES AND OBSERVATIONS. CALL IF YOU HAVE QUESTIONS OR CONCERNS.

DATE: 7-29-93

# of PAGES (including cover): 2

State of West Virginia
Division of Environmental Protection
Environmental Enforcement
Incident/Investigation Report

REF# _____
County WETZEL
Basin OHIO

WRC ____ SWC X Spill X Fish Kill ____ By-Pass ____ Other ____
Received by JAMIE FENSKE Date 7-13-93 Time 0745 HRS
Caller DAVE ROGERS Representing CITY OF NEW MARTINSVILLE
Phone Number ____ Address ____
Description of Incident STP SLUDGE FROM SAR TRUCKING INC SPILLED PART LOAD ON ROUTE 2

Specific Location NEW MARTINSVILLE

Responsible Party SAR TRUCKING INC (1-800-598-0281)
Date/Time of Incident 7-13-93 @ 6:30 AM Stream N/A
Material/Quantity Spilled 500 TO 1000 GALLONS
Spill status: (X) Stopped (X) Cleanup in progress ( )
( ) Dead fish noted ( ) Wildlife Notified ( ) Law Enforcement Notified
Investigation findings RANDY SICKLES, TRUCK DRIVER, TIM WADE, STP DAVE BOYERS, NEW MARTINSVILLE POLICE, HENRY PARSONS, OES (WCS)

SPILL OCCURRED WHEN DRIVER ATTEMPTED TO STOP TOO FAST AND OVERTOPPING OCCURRED. WETZEL COUNTY LANDFILL (DESTINATION) CLEANED UP SPILL AND LIMED SPILL AREA. VFD HOSED DOWN AREA AFTER CLEANUP. SAMPLE COLLECTED AND TO BE ANALYZED FOR % SOLIDS. LOAD WAS STABILIZED AT THE LANDFILL. SLUDGE FROM LEHIGH VALLEY RECYCLING TRANSFER STATION, COPLAY PA, WHICH IS A MASCARO FACILITY. DRIVER LEFT SCENE OF THE SPILL? ANALYSIS FOUND TO BE < 13% SOLIDS - A VIOLATION

Action taken CLEAN UP INITIATED & COMPLETED, SAMPLE BEING ANALYZED FOR % SOLIDS

Samples taken YES
Photos taken YES
Relayed to ____ Date ____ Time ____
Investigated by Jamie Fenske Date 7-13-93 Time ____

White - District Yellow - Inspector

BROOKE COUNTY SOLID WASTE AUTHORITY

P.O. BOX 50
WELLSBURG, WV 26070

PHONE NO.(304)-737-0780 FAX NO.(304)-737-0781

June 23, 1993

Attn: Bill Rheinlander

Division of Environmental Protection
Office of Waste Management
1356 Hansford Street
Charleston,WV 25301

Dear Mr. Rheinlander:

Enclosed is a Hard Copy of the letter Faxed to you on Tuesday June 22,1993 at Approx. 2:45 P/M, Please see to it that whom ever you think should have a copy of the letter gets one.

Thank you for your cooperation in this matter.

Very truly yours,

By Silvio Paesani
Silvio Paesani, Chairman
Brooke County S.W.A.

cc:Ken Heckler W/Encl.
John M. Ranson W/Encl.
David Callaghan W/Encl.
Ann A. Spaner W/Encl.
Max Robertson W/Encl.
Richard Cooke W/Encl.
Clifton Browning W/Encl.

FILED

BROOKE COUNTY SOLID WASTE AUTHORITY
P.O. Box 50
Wellsburg, WV 26050

COMMENTS
PROPOSED RULE - TITLE 47, SERIES 38D
SEWAGE SLUDGE MANAGEMENT REGULATIONS

Senate Bill 288, W.Va. Code 20-5F-2b(e), makes sewage sludge subject to the same tipping and other fees levied by "this Chapter", being Chapter 20 of the Code, on the disposal of solid waste.

The proposed Regulation, 47-38D-6.3.3, would make sewage sludge only subject to the tipping and other fees levied by W.Va. Code 20-5F-5a(h)(1).

The statute requires that sewage sludge also be subject to the fee imposed by W.Va. Code 20-9-13 but the Regulation is silent and should, therefore, be expanded to include the 20-9-13 fees.

Dated the 21st day of June, 1993.

Brooke County Solid Waste Authority

By Silvio Paesani
Silvio Paesani, Chairman

The Senate of West Virginia
Charleston

JOHN G. CHERNENKO
SENATE MAJORITY WHIP
1601 PLEASANT AVENUE
WHEELING 26070

FILED
Aug 2 3 54 PM 1993
OFFICE OF WEST VIRGINIA
SECRETARY OF STATE

COMMITTEES:
ENERGY, INDUSTRY AND MINING
FINANCE
GOVERNMENT ORGANIZATION
HEALTH AND HUMAN RESOURCES
LABOR (CHAIRPERSON)
MILITARY

August 2, 1993

The Honorable Ken Hechler
Secretary of State
State Capitol Building
Charleston, WV 26505

Re: Senate Bill 288
Proposed Sewage Sludge Regulations

Dear Secretary Hechler:

I am writing with regard to the above matter as both a concerned citizen of Brooke County and a member of the Legislature. I have learned that the Division of Environmental Protection has proposed regulations concerning the recently enacted Senate Bill 288. This legislation sought to protect our State by regulating the disposal of sewage sludge. This bill was of special interest to the Northern Panhandle as Brooke and Wetzel Counties have apparently been designated as sewage sludge dump sites by landfill operators.

Unfortunately, an element at work within our own State government has seen fit to attempt to undermine this legislation through the development of the proposed regulations which have been submitted to your office. Bureaucrats within the Division of Environmental Protection have now submitted for approval administrative regulations which completely subvert each and every meaningful provision of Senate Bill 288 by either exempting operators from its provisions or interpreting these provisions so as to achieve the same goal.

This bill was a product of intense work by 134 duly elected representatives of the people of West Virginia. These legislators considered the present and future needs of our State and the will of our people in enacting this legislation. It was then ratified by Governor Caperton as it was signed into law.

If these regulations are approved by you, the end result is that the law which the entire Legislature worked to create

and which Governor Caperton endorsed, will be completely and permanently rendered meaningless by forces within our own government. Were they truly concernod with the best interests of the public, these persons at the Division would not have promulgated regulations desiqned intentionally and specifically to counteract the laws of this State. I can only conclude that their actions seek to serve some force other than the best interests of the public.

I respectfully request that you reject these regulations which have been proposed by the Division of Environmental Protection as they are contrary to West Virginia law. To do otherwise will be to permit this renegade element within the executive branch to operate unchecked and to subvert the will of the people of this State, their Legislature, and Governor.

Respectfully,

John G. Chernenko

DEPARTMENT OF COMMERCE, LABOR & ENVIRONMENTAL RESOURCES
DIVISION OF ENVIRONMENTAL PROTECTION
10 McJunkin Road
Nitro, WV 25143-2506

Gaston Caperton
Governor

John M. Ranson
Cabinet Secretary

David C. Callaghan
Director

Ann A. Spaner
Deputy Director

November 22, 1993

The Honorable Ken Hechler
Secretary of State
Capitol Complex, Suite 157-K
Charleston, WV 25305

RECEIVED
1993 NOV 23 AM 9 5
OFFICE OF
SECRETARY OF STATE

Dear Secretary Hechler: Re: Emergency Rule Decision (ERD23-93)

I received your decision dated November 16, 1993, regarding the sewage sludge management regulations filed by my agency. I was shocked and dismayed at the level of error and misinformation displayed in your decision. The decision is directed at the WRONG state agency! The Division of Environmental Protection (DEP), and NOT the Division of Natural Resources, (DNR), filed this rule and the similar emergency rule on sewage sludge management filed by DEP in July. The Office of Waste Management has been within the Division of Environmental Protection since July 1992 by operation of a Governor's Executive Order. The DEP was created in October 1991, two years ago. No less than nine (9) times throughout the body of this decision, the DEP is referred to as the DNR. The two agencies are separate and distinct and have nothing to do with one another on the issue of sewage sludge management.

The most vexing deficiency in your decision is that no reason is given for rejecting the rule. The numbered paragraphs 1-14 of your decision appear to be a meandering stream of discussion about what your statutory duties are with regard to emergency rulemaking. The errors in your letter are as follows:

Paragraph 1: We are not the Division of Natural Resources. The DEP has filed a revised emergency rule to comply with the statutory mandate of Senate Bill 288.

Paragraph 2: West Virginia Code Section is cited here as "29A-3-a" requiring the Secretary of State to review all emergency rules. This is, of course, an incorrect citation. Emergency rule regulation appears in Chapter 29A-3-15 of the Code. The requirements set forth in paragraph 2 appear to be those contained in §29A-3-15(a)(1). DEP has filed this emergency rule in complete compliance with that section. The agency has not exceeded the scope of its authority in promulgating this emergency rule. The Legislature declared that an emergency did exist justifying the promulgation of an emergency rule. See §20-5F-2b(b).

Paragraph 3: Again, the Secretary of State has cited an erroneous Code section. I believe the reference is to the section which outlines the disapproval of emergency rules by the Secretary of State, which appears at Code 29A-3-15a(b). The agency, DEP, reiterates its position that we have complied fully with requirements of this section.

Paragraph 4: Simply sets forth the statutory procedural requirements that appear in Code 29A-3-15.

Paragraph 5: Simply reiterates emergency rule filing procedures which have been complied with by the DEP in this instance. See paragraph 7 below.

Paragraph 6: Again, refers to the filing agency incorrectly as the DNR and notes that we filed the emergency rule with supporting documents with the Secretary of State on October 12, 1993 and with the Legislative Rulemaking Review Committee. This paragraph omits any mention of the fact that Senate Bill 288 required the DEP to file these rules "no later than 90 days from the effective date" of the article. The article was effective April 10, 1993, and the agency first filed the proposed emergency rule on July 8, 1993. As your office knows, due to numerous letters and comments, the agency withdrew the rule and addressed the concerns raised by you prior to refiling it on October 12, 1993.

Paragraph 7: We agree with the conclusion in this paragraph that the Secretary of State found that the DEP (not DNR) complied with procedural requirements.

Paragraph 8: Simply restates the exact language from SB 288 authorizing the agency, DEP, to promulgate this emergency rule, finds the conditions existing justify an emergency rule, and outlines twelve (12) specific requirements to be included in the rule. You should note the requirement in subsection (b)(12), that DEP include a fee to be paid by the producer or importer of sewage sludge sufficient to cover the cost of the sewage sludge management program. All wastewater treatment facilities in West Virginia are producers of sewage sludge. The fact that the law required DEP to assess a fee for land application of sludge through these regulations was clear from passage.

Paragraph 9: In a terse statement, the Secretary of State concludes that "DNR" (sic) read as DEP, "has exceeded its statutory authority in promulgating this emergency rule." I request further explanation. On what facts or documents do you base that conclusion? How or where in this rule has DEP exceeded any of the authorities granted in the statute?

Paragraphs 10-12: These paragraphs undertake a review of West Virginia Code 29A-3-15(g), which defines the nature of an emergency

rule. These provisions are inapplicable and irrelevant with regard to the sewage sludge management emergency regulation. Subsection 15(g), in our view, gives guidance to how the Secretary of State can determine whether an emergency exists IN THE ABSENCE OF clear legislative direction. However, because of the paragraph cited above, §20-5F-2b(b), the Legislature specifically found that this rule was required to be promulgated as an emergency.

Paragraph #13 is a complete contradiction. It is difficult to imagine how the Secretary of State could have made a determination that the rule doesn't qualify as an emergency when in stark and blaring contrast the Legislature has expressly found that "conditions warranting a rule to be promulgated as an emergency do exist..." The DEP is alleged thereby to have exceeded the scope of our statutory authority in carrying out the legislative mandate. Please explain how this is possible.

Paragraph 14: This final paragraph simply identifies your decision, notes its availability and again attributes the rule incorrectly to DNR.

Mr. Hechler, as you can see, the confusion and machinations surrounding this particular rule promulgation is epidemic. We are compelled to comply with the law as it is written. That is what we have done in filing and subsequently refiling the emergency rule. Likewise, you have certain statutory duties with regard to review and promulgation of emergency rules. I would hope that the errors and concerns pointed out in this letter will allow you to re-examine your decision to reject the emergency rule filing and allow the law to be followed to make the rule effective as an emergency rule, as the Legislature required.

In the upcoming legislative session the law can be changed or the rule can be changed. Prior to that time, I believe it is necessary for our two agencies of government to carry out our responsibilities lawfully.

I look forward to your reply.

Sincerely,

David C. Callaghan
Director

DCC/asb
cc: Delegate Brian A. Gallagher
Senator Joe Manchin, III
John Ranson
Renee Coe
Ann Spaner

KEN HECHLER
Secretary of State

MARY P. RATLIFF
Deputy Secretary of State

A. RENEE COE
Deputy Secretary of State

CATHERINE FREROTTE
Executive Assistant

Telephone: (304) 558-6000
Corporations: (304) 558-8000

STATE OF WEST VIRGINIA

SECRETARY OF STATE

Building 1, Suite 157-K
1900 Kanawha Blvd., East
Charleston, WV 25305-0770

WILLIAM H. HARRINGTON
Chief of Staff

JUDY COOPER
Director, Administrative Law

DONALD R. WILKES
Director, Corporations

(Plus all the volunteer help we can get)

FAX: (304) 558-0900

September 29, 1993

Shirley Mullett
Wetzel County Solid Waste Authority
200 North Street
Box 9
New Martinsville, WV 26155

Dear Shirley:

I received you letter requesting a copy of the refiled Sewage Sludge Management Regulations, Title 47, Series 38D. I am writing this letter to you at 3:30 p.m.

Despite what the letter dated September 20, 1993 from Richard Cooke said, this rule has not been refiled with this office either as an emergency rule or as a "revised" Agency Approved Rule.

I will keep your letter, and if these rules are refiled, I will notify you as soon as possible afterwards.

Please let me know if I can help in any other way.

Sincerely,

Judy Cooper

Judy Cooper, Director
Administrative Law Division

cc: Richard P. Cooke

WETZEL COUNTY SOLID WASTE AUTHORITY

200 North Street, Box 9, • New Martinsville, WV 26155 • Phone: (304) 455-5262

Administrative Law Division
Secretary of State
Capitol Bldg.
Charleston, WV 25305
Attention: Judy Cooper

September 27, 1993

Dear Ms. Cooper:

Enclosed please find a letter dated September 20, 1993 from Richard P. Cooke, Assistant Chief of the Solid Waste Management Section of the Office of Waste Management of the Division of Environmental Protection. In his letter, Mr. Cooke states that the proposed emegency regulations, Title 47 Series 38D "Sewage Sludge Management Regulations" have recently been resubmitted to the Secretary of State.

Under the Freedom of Information Act, could you please send our Authority a copy of the Title 47, Series 38D "Sewage Sludge Management Regulations" referred to in Mr. Cooke's letter that were resubmitted on or before September 20, 1993? Thank you for your anticipated co-operation in this matter.

Sincerely,

Shirley Mullett

Shirley Mullett
Coordinator
Wetzel County
Solid Waste Authority

DEPARTMENT OF COMMERCE, LABOR & ENVIRONMENTAL RESOURCES
DIVISION OF ENVIRONMENTAL PROTECTION
1356 Hansford Street
Charleston, WV 25301-1401

Gaston Caperton
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September 20, 1993

Ms. Shirley Mullett
Coordinator
Wetzel County Solid Waste Authority
200 North Street, Box 9
New Martinsville, West Virginia 26155

Dear Ms. Mullett:

This letter is in response to your written request dated September 15, 1993 and received by DEP/OWM on September 17, 1:49 pm 93, regarding the exact analytical procedure for the concept of "dry weight" as applied to sewage sludge.

As you may not be aware, the proposed emergency regulations, Title 47 Series 38D "Sewage Sludge Management Regulations", have recently been changed and resubmitted to the Secretary of State. The area of "wet" versus "dry" tons was changed in the resubmission.

Initially the agency attempted to assess the fee against actual tons (wet) but encountered significant opposition from the municipal facilities which would be forced to pay significant fees for land application. The revised fee for "dry" tons was an attempt to provide some relief to those facilities. In either event, the fee to be imposed is a land application fee, and is not intended to replace nor circumvent any fees which currently exist under solid waste laws. The agency requested clarification from the Attorney General on this issue and will now assess the fee on an actual per ton basis, not a dry ton basis.

If you have any other questions, please contact us.

With kindest regard,

Richard P. Cooke, Assistant Chief
Solid Waste Management Section
Office of Waste Management

RPC:gs

cc: G. Max Robertson, Chief, OWM
Bill Brannon, OWR
Clifton Browning, OWM

RESPONSIVENESS SUMMARY

COMMENTS GENERATED BY THE
PUBLICATION AND PUBLIC HEARING
FOR THE
DIVISION OF ENVIRONMENTAL PROTECTION'S
PROPOSED SEWAGE SLUDGE MANAGEMENT REGULATIONS
TITLE 47, SERIES 38D

On May 24, 1993, proposed Sewage Sludge Management Regulations were filed with the Secretary of State's Office. Subsequent to a thirty day review, a public hearing was held at the Office of Air Quality's Conference Room in Charleston, West Virginia. Attendees at the public hearing provided oral and written comments to the Division of Environmental Protection on the proposed regulations. Copies of the written comments, a transcript of the hearing and a list of attendees is attached.

Subsequent to the hearing, the Division of Environmental Protection reviewed the comments and made modifications to the proposed regulations which were deemed to be in keeping with the intent of Senate Bill 288 and within the authority of the agency. This document summarizes the comments, provides the agency's response to those comments and identifies changes made to the proposed regulations as a result.

Due to the number of written and oral comments, the agency has chosen to categorize the comments by the pertinent sections of the proposed regulations to which they refer, summarize the general intent of the specific comments, and respond accordingly. For example, many comments related to the **PERMITS REQUIRED** section. In the Responsiveness Summary the comments are summarized under the heading **"47-38D-4. PERMITS REQUIRED"**, followed by **"Comments"**, followed by **"Response"**.

The agency wishes to express its appreciation to the commentors for providing input to the regulatory process. It is hoped that the modifications made as a result of the many comments have resulted in an equitable, workable regulation that will respond to the Legislative mandate of establishing a statewide Sewage Sludge Management Program and be protective of the environment and the citizens of the State of West Virginia.

RESPONSIVENESS SUMMARY

FISCAL NOTE

COMMENTS - Several commentors noted that the proposed regulations were submitted with a fiscal note which indicated that the regulations would result in No Change, implying that there would be no economic impact to the agency, the citizens or the affected community as a result of the regulations. Many of the comments related to this issue were from West Virginia municipalities with Publicly Owned Treatment Works which have been implementing the agency's existing Sewage Sludge Management Program. In addition to the fees to be assessed for land application of sewage sludge contained in the proposed regulations, the commentors expressed concern about the design specifications required for sewage sludge processing facilities, specifically the liner requirements, which were felt to be excessive and cost prohibitive if applied to the state's POTW's. Other comments expressed concern that to effectively implement the provisions of any sludge management program, the agency must have adequate resources.

RESPONSE - The agency recognizes that the Fiscal Note does not accurately reflect the economic impact of the implementation of the proposed regulations. Fee requirements, which at the time of submittal were still being developed by the agency, do indeed represent an economic impact to the POTW's and the citizens served by those facilities. The agency has operated a sewage sludge management program at the Office of Water Resources for almost five years with insufficient funding and realizes that the provisions of the new law and these regulations represent a substantial economic impact. The design and operational requirements for sewage sludge processing facilities would also require a significant expenditure to achieve compliance on the part of the state's POTW's. However, with the exception of the fee requirements for land application, the agency felt at the time of submittal that the federal regulations, 40CFR, Part 503, which are currently in effect, already imposed an economic impact on the affected community which would not be changed substantially by the implementation of the West Virginia Sewage Sludge Management Regulations. Due to the comments received on the regulations and the agency's response, the land application fees have been revised and will represent much less of an economic impact than previously expected. The fees generated will be used to support the agency's implementation of the program. Finally, the liner requirements have been modified, see response to "47-38D-3.0 Standards for Use, Disposal and Processing of Sewage Sludge".

APPLICABILITY OF 40 CFR, PART 503

COMMENT - Many commentors questioned the "wholesale" incorporation of federal 503 regulations. Most felt that the intent of Senate Bill 288 went beyond the requirements of 503 and that to adopt the federal regulations, in total, would be contradictory and in noncompliance with the state law. In general, the specific concerns related to this comment involved 1) the intent of 288 to prohibit dedicated sewage sludge disposal sites, 2) background metal levels in recipient soils, and 3) contradictory reporting requirements. Some commentors pointed out that the legislation specifically intended to prevent West Virginia from becoming a sludge repository for the surrounding states who have recognized the inadequacies of 503 and have established more stringent rules than the federal regulations. Some commentors suggested the current proposed regulations be completely rewritten, using 503 regulations as a guide, to bring them into compliance with the intent of 288.

RESPONSE - Federal sewage sludge regulations, 40 CFR, Part 503, are currently in effect nationally. All producers and importers of sewage sludge are required to comply with the provisions of those regulations. The 503 regulations were developed over a period of at least 5 years with opportunity for public input on several occasions. A significant amount of scientific research went into the development of the loading rates, analytical testing requirements, etc.; research that the State of West Virginia cannot afford to duplicate. At this time, the federal government, specifically the U.S. Environmental Protection Agency, retains primacy for implementation of the 503 regulations for the states. The states have the opportunity to assume primacy if the federal government approves the state's primacy delegation request. The State of West Virginia is one of only a handful of states nationally which has expressed interest in assuming primacy for the federal program. Our interest is based on the fact that the existing state Sewage Sludge Management Program has been developed almost concurrently, and in concert, with many of the 503 criteria, specifically the land application components. In addition, the state recognizes that while it now has the authority to develop and manage sewage sludge regulations under state law, the federal regulations will also be applicable if the state does not have primacy for the program. The presence of two possibly conflicting authorities regulating the same community would be cumbersome at best. The EPA is currently working with the Division of Environmental Protection on preparation of a primacy delegation package which must be reflective of 503 regulations, at a minimum. As in any primacy situation, the state can be more restrictive than the federal law if it so chooses. It cannot, however, be less restrictive.

In response to the three primary concerns expressed by the commentors, listed above, the agency has modified the regulations to address those concerns. See responses to "47-38D-3.0 Standards for Use, Disposal and Processing of Sewage Sludge.", and "47-38D-5. General, Processing Facility, and Land Application Permit Requirements." With the modifications discussed in those responses and made in the regulations, the agency feels that the three primary concerns of the commentors have been accomodated to the extent that the assumption of primacy for the federal program is still a feasible option.

In regards to the issue of West Virginia becoming the repository for sludge in the eastern seaboard states, West Virginia, nor any state, may prohibit the import of sewage sludge. The attempts and subsequent inability of the state to prohibit out-of-state garbage should be evidence of that. The state can, however, manage and regulate the disposal, processing and land application of sewage sludge from whatever source to insure that the ultimate disposition is in keeping with protecting the environment and citizenry of the state. The reliance on the pertinent provisions of 40 CFR, Part 503, the addition of stricter criteria under Senate Bill 288 and the assumption of state primacy for the federal program should result in a protective management program.

47-38D-2.0 DEFINITIONS

COMMENTS - Many commentors expressed concern over several definitions which were either too restrictive or, conversely, did not go far enough. Several questioned the classes of sewage sludge processing facilities stating that they were contradictory to the existing definitions in solid waste law. Others questioned the interpretation of the definitions for "Commercial Solid Waste Facility" and "Source Separated Materials" and the applicability to publicly owned treatment works. "Pretreatment Publicly Owned Treatment Works" was cited as being unclear in regard to the remediation fee.

RESPONSE - In general, the agency response to the majority of the comments related to the definition section of the regulations is that the definitions included are statutory definitions, for the most part, and cannot be changed by the regulations. For example, the definitions cited above for "Commercial Solid Waste Facility" and "Source Separated Materials" are in Senate Bill 288. The concerns expressed by the commentors on those two specific definitions, however, can be answered by acknowledging that although the strict interpretation of both definitions does include POTW's, the legislation itself provided relief to POTW's with National Pollutant Discharge Elimination (NPDES) permits from the Division under Chapter 20, Article 5A. The acceptance, therefore, of domestic sewage sludge from non-POTW sources, such as septage haulers and small package plants, would not require the POTW to obtain a separate solid waste facility permit. For those definitions that were created for these regulations, and that were questioned by the commentors, the following explanations and modifications are offered.

"Class A facility" - This definition is included in the statute and is also included in the solid waste statute. The apparent intent of including it in Senate Bill 288 was to maintain control over the siting and volume limitations of the sewage sludge processing facility. As the modifications made in "47-38D-4.0" require sewage sludge processing facilities to adhere to all pertinent regulations of the solid waste law (including siting and limitations on volume), and the term itself is not used in the sewage sludge regulations elsewhere, this definition has been deleted.

"Class A Sewage Sludge Processing Facility" - This definition was created for the regulations but in light of the modifications to "47-38D-4.0" is no longer necessary and has been deleted.

"Class B Sewage Sludge Processing Facility" - Deleted.

"Class C Sewage Sludge Processing Facility" - Deleted.

"Pretreatment Publicly Owned Treatment Works" - To provide further clarification of the term "pretreatment" the definition has been modified. The agency's intent in distinguishing between sewage sludge generated at pretreatment facilities and nonpretreatment facilities was to address the intent of the legislation in regard to quality of the sludge. The agency considers sewage sludges generated at pretreatment POTW's to have the potential to be higher in metals, for example, because of the presence of industrial wastes in the waste stream. While it is true that pretreatment requirements presumably result in a "cleaner" effluent, the potential for the facility to have higher concentrations of industrial pollutants is greater than in those facilities which are not serving industrial users.

"Source Separated Organic Waste" - This definition was created by these regulations and has been amended to exclude pressure-treated wood waste.

"Stabilization" - This definition has been amended to reflect concerns expressed by commentors for the control pathogens, toxins and vectors.

47-38D-3.0. STANDARDS FOR USE, DISPOSAL AND PROCESSING OF SEWAGE SLUDGE

COMMENTS - Predominant among the comments received on this section was the liner requirements for sewage sludge processing facilities followed closely by concerns relative to the land application siting restrictions and location standards. The incorporation by reference of 40 CFR, Part 503, was also questioned by many commentors.

RESPONSE - As discussed earlier, the incorporation by reference of 40 CFR, Part 503 generated significant concern. The primary concerns were the failure to prohibit dedicated sewage sludge disposal sites, the lack of response to the background metal levels in recipient soils, and the contradictory reporting requirements of Senate Bill 288 versus 503. While the agency feels it is necessary to maintain the incorporation by reference provisions of 47-38D-3.1., it has amended that section to respond, in part, to the comments received. By excluding 503.10(b)(1) from the incorporation provision the agency can impose the same restrictions on all sewage sludge, i.e. monitoring, reporting etc. 503.10(b)(1) exempted "clean" sludge from many of the monitoring and reporting requirements. While this may prove to be a disincentive for producers to achieve "clean" sludge in their process, it will provide protection from potentially exceeding the maximum background metals levels in recipient soils. It also allows more control for the agency in the management of land application of sewage sludge. In regard to the maximum concentration of metals issue, section 3.2.2 has also been amended. In addition, 503.20 through 503.29 have been excluded. These sections referenced the dedicated disposal site issue. The agency feels that the exclusion of these sections and defining such facilities as landfills subject to the applicable requirements of Title 47, Series 38 should address the concerns expressed.

The contradictory reporting requirements have been addressed by the modification of section 5.1.1.b. See also response to "47-38D-5.0"

The siting restrictions and location standards, section 3.2, elicited many suggestions from commentors on improvements. The agency has been operating the West Virginia Sewage Sludge Management Program for over five years using the criteria included in the regulations without significant problems. The criteria were developed jointly with the West Virginia University Cooperative Extension Service which has access to technical expertise from across the world. The U.S. Environmental Protection Agency has also accepted the criteria as being

protective of the environment. Some of the suggestions provided, given the terrain of West Virginia, would have prohibited the land application of sewage sludge in the state. The agency did make the following modifications in response to comments:

3.2.1.b. - Added "streams" to list of surface waters.

3.2.1.h. - Added "unless the pH is adjusted to 6.2 or greater." Currently, the land application site must have lime or other acceptable amendments added to raise the pH to at least 6.2. It has been determined by the agency, through the West Virginia Sewage Sludge Program, that the pH must be at least 6.2 to prevent nitrate leaching.

3.2.1.k. - Changed the requirement for soil over bedrock from 20" to 6". Commentors noted that very few soils in West Virginia had a depth to bedrock or impervious pan at much less than 20" and that this would limit the land available for application. It was also noted that most land with at least 20" of soil over bedrock was in the flood plain.

3.2.2. - This section has been amended to add language that establishes the cumulative loading rates identified in 503 as the minimum for protecting the maximum soil concentrations in addition to requiring soil testing procedures developed by the agency. While the agency has yet to determine if adequate soil testing is available that will address the concerns expressed, it feels that this provision will allow the agency to require such testing when it is identified or developed.

3.2.4. - This new section was added to address the concerns expressed over storage of sewage sludge. Storage of sludge at sewage sludge processing facilities will be addressed by the permit requirements. Prolonged storage at the sewage sludge processing facility was a concern expressed by commentors which is addressed by an amendment to 3.3.1.a. Storage of sludge at land application sites, however, was not addressed specifically for situations which may require the applicant to store the material on-site until it is possible to land apply. Inclement weather, for example, may prohibit the application during winter months. A provision for storage for up to three months has therefore been added. Appropriate application equipment may not be available immediately upon delivery to the site, but should not require more than one week for such arrangements to be made. In-tank storage of septage has been provided for no more than three days.

3.2.5. - A provision prohibiting application at night has been added in response to comments.

3.3.1.a. - An amendment has been added regarding storage. See response to 3.2.4.

3.3.1.d. - Liner requirements. This provision elicited many comments, predominantly from the POTW's, which expressed concern over the cost of compliance. The agency has amended this section to reference the authorities of the Groundwater Protection Act, Chapter 20, Article 5M. The Act requires groundwater protection practices which are protective of the groundwater. Liners or other protection measures shall be required as per the regulations developed under that Act.

3.4.1. - Amended to delete reference to Solid Waste Management Regulations in keeping with the intent of 3.3.1.d. above.

3.6. - Amended to delete "other materials that have been approved by the chief prior to disposal". Added "prior" before written approval in last sentence. The agency agrees that there is a degree of uncertainty in the nature and potential quality of "other materials". It does, however, feel that alternative methods may be acceptable and reserves the ability to allow other options with prior written approval from the chief.

47-38D-4.0. PERMITS REQUIRED

COMMENTS - Several commentors expressed uncertainty as to the acceptability of providing for a modification to a solid waste permit for sewage sludge processing facilities located on an existing landfill (facility permitted by a solid waste permit). Comments related primarily to the type of modification to be allowed (major or minor). Other commentors questioned the applicability of the the permit requirement under Chapter 20, 5A to only POTW's and not to other regulated domestic or municipal treatment facilities. The coverage of the regional map delineating the "service area" was questioned. Storage of finished product at the sewage sludge processing facility was a point of concern. Public input into the siting of sewage sludge processing facilities and information relative to the land application sites was suggested.

RESPONSE - In response to the concerns expressed relative to the modification of a solid waste permit to provide for sewage sludge processing facilities, the agency has deleted section 4.1.3. Under these regulations, new sewage sludge processing facilities must obtain a separate permit, subject to the permit issuance procedures of Title 47, Series 38. Those requirements include all provisions which are currently applicable to landfills, i.e. Solid Waste Authority approvals, public input, bonding, etc., except for liner requirements (see modification to 3.3.1.d.). The question of applicability of these regulations to domestic or municipal treatment facilities, other than POTW's, is valid. While the Legislature did not specifically include these facilities in the language related to POTW's, it would seem appropriate to address sewage sludge generated by such facilities in the same manner. The agency intends to incorporate sewage sludge management modifications in all non-industrial NPDES permits.

Land Application Permit - While the legislation and 40 CFR, Part 503, specifically provide for land application, the agency did not include a permit requirement for land application in section 4.1. Although land application permit requirements are delineated under section 4.2.3., there is no provision to require such a permit in section 4.1. To avoid the necessity of requiring a POTW to obtain both a modification to its NPDES permit and a land application permit, the modification will incorporate those requirements delineated in section 4.2.3. For all other producers or importers land applying sewage sludge, a land application permit will be required. Included in the permit issuance procedures of both Titles 46, Series 2 and 47, Series 38 are opportunities for public input. Such procedures will address commentors concerns about having input into location of sewage sludge processing facilities as well as land application sites.

The requirement in 4.2.2.a.A. for a regional map of the entire service area of the proposed facility is taken from the solid waste regulations and is intended to provide information on the area from which the sewage sludge processing facility will be accepting sewage sludge for processing. While it should indicate the POTW's from which the sewage sludge is generated, it is not intended to require a map of collection systems for POTW's in other states. The map required by this section may cover a multi-state area.

Storage of sewage sludge at the land application site has been addressed, see response to 3.2.4. Storage of the finished product is addressed to some degree in 4.2.2.c.E. The sewage sludge processing facility is required to comply with the operational design requirements of section 3.3. These include provisions for the placement of sewage sludge, intermediate and final products in areas which are protective of groundwater impacts as per the requirements of the Groundwater Protection Act. The agency does agree that a time period should be identified which would prevent a sewage sludge processing facility from storing sewage sludge for an indeterminate time. Section 3.3.1.a. has been amended to reflect a one year storage period as suggested by commentors.

Other modifications made to the regulations include:

4.2.2. - Changed the first sentence to read "All applicants for permits for sewage sludge processing facilities". Clarification.

4.2.3.j. - Amended to clarify description of methods to be used for land application.

4.2.3.n. - Amended to remove the words "by the applicant". The applicant will be subject to the terms of the agreement in 4.2.3.d., as will the landowner. Responsibility for the maintenance of the pH for at least 5 years would more properly be the landowner's accepting the sewage sludge, however the agreement will determine responsibility. It is necessary to maintain the pH level to prevent metals and nitrate leaching.

47-38D-5.0. GENERAL, PROCESSING FACILITY, AND LAND APPLICATION PERMIT REQUIREMENTS

COMMENTS - Several commentors suggested that the sewage sludge regulations did not include enforcement provisions. One commentor pointed out that the Legislature had recently passed legislation, in effect, prohibiting incineration of solid waste. Since sewage sludge is defined as solid waste the commentor suggested that the agency extend that intent to these regulations. The general comments relating to contradictory reporting requirements discussed earlier in this summary related to provisions in the permit requirements section of the regulations and will be responded to as described below.

RESPONSE - Senate Bill 288 amended Chapter 20, Article 5F, Section 2. The enforcement provisions of Chapter 20, Article 5F, as well as those enforcement provisions of Chapter 20, Article 5A related to WV/NPDES permits and water quality standards violations are applicable to the Sewage Sludge Management Regulations. Additional enforcement authorities are not deemed necessary by the agency.

The comment related to incineration has merit. The agency agrees that the intent of the Legislature could be well served by eliminating the incineration provisions of the sewage sludge management regulations and has therefore deleted section 5.4. Those sewage sludge incineration facilities currently in existence will, however, be subject to the applicable provisions of 40 CFR, Part 503. By maintaining the incorporation provisions in section 3.1. the agency will provide the Office of Air Quality with the ability to modify the existing incineration permits as necessary to meet the requirements of 503.

The agency recognizes the reporting requirements of 503 are not adequate to address the intent of Senate Bill 288. The agency has therefore modified section 5.1.1.b. to require reporting of the analyses conducted on the sewage sludge. The reporting frequency shall be the same as the monitoring frequency of Appendix A.

Other modifications made as the result of comments include:

5.3. - Amended to change reference from solid waste facility permit to land application permit.

47-38D-6.0. FEE REQUIREMENTS

COMMENTS - Of all the provisions the Sewage Sludge Management Regulations, this section generated, by far, the most comments. Two primary concerns predominated among the comments received. First, almost all commentors expressed dissatisfaction with the assessment of fees against wet tons. Most felt that the assessment would be more equitable against dry tonnage. The second most prevalent comment related to the the absence of the bonding provision of Senate Bill 288. While most understood the agency's alternative to the bonding requirement, the remediation fee, some expressed concern that it did not adequately address the potential adverse impact of improper application of sewage sludge. Other comments pertinent to this section related to management and disposition of the fees collected, authority for collection of fees, and concern over a potential loophole in section 6.1. which could inhibit fee collection.

RESPONSE - In order to provide funding support for the implementation of the Sewage Sludge Management Regulations, the Legislature included a land application fee in Senate Bill 288. This fee "to be paid by the producer or importer" is to "be levied on the land application of sewage sludge, to be collected at a per ton rate, sufficient to cover the costs of the sewage sludge management program." The authority for collection of a land application fee is therefore well established. Further, the fees are to be deposited in the "water quality management fund", a special revenue fund established under Chapter 20, Article 5A, Section 6a. The Office of Water Resources currently uses this fund to cover the costs associated with the NPDES program. Management and accounting procedures associated with this fund are well established.

While not expressed in these regulations, permit fees are required for solid waste facilities under the authorities of the solid waste law and will be applicable to sewage sludge processing facilities and landfills. Solid waste permit fees will not, however, be applied to land application permits or NPDES permits. The bonding requirements for solid waste facilities also apply to sewage sludge processing facilities but not to land application or NPDES facilities. See modifications to regulations 4.1.5, 4.1.6., and 4.1.7.

Section 6.3.3. was amended to remove tipping fees from sewage sludge processing facilities and to remove the provision for deposit of fees collected in only the Solid Waste Enforcement Fund.

The agency acknowledges the comments related to the wet versus dry ton issue and has revised sections 6.3.1. and 6.3.2. to reflect assessment of the land application and remediation fees against dry tons. In explanation of the original intent to collect fees against wet tonnage, the agency reviewed land application statistics from previous years to estimate the potential amount of sewage sludge (in wet tons) which may be anticipated under these regulations. Those statistics included some land application from out-of-state sources but the majority was from in-state POTW's, resulting in a more accurate but fairly conservative estimate. It then developed an estimate of the resources it would need to implement the new regulations, as initially proposed. These calculations resulted in the per ton assessment fee included in the regulations. With modifications made as a result of the public comments and anticipation that the original estimates of imported sludge for land application were probably low in relation to what may eventually be realized, the agency agrees that the assessment should more properly be against dry tons but is concerned that the fee may need to be raised to reflect this very significant difference (roughly 80% less). Obviously, the change to dry tons will produce significantly less revenue than wet tons. The agency recognizes the impact the fee will have on the POTW's and will reevaluate its resource requirements in light of this reduction. If the fees generated do not adequately support the program, the agency shall revisit the fee assessment in the future.

While Senate Bill 288 provided authority for bonding of producers and importers of sewage sludge to cover the cost of future environmental remediation, it was determined by the agency that such a requirement would be unmanageable if the intent was to cover each individual land application site. Very few bonding requirements provide sufficient funds to effectively remediate detrimental impacts. It was therefore decided that the "... or similar instrument" clause included in the legislation may be a more feasible solution to the bonding requirement. There is a precedent for a remediation fee in the Groundwater Protection Act which requires collection of a fee to be used to remediate groundwater impacts. While Senate Bill 288 did not specifically include such a provision, it provided the intent, the mechanism and the fund in which to deposit it. Remediation fees will be deposited in the water quality management fund and accumulated until the need arises for their use. The agency will develop regulations in the near future for the use of the remediation fees, including management and accounting procedures to insure that the funds are used as intended. Those regulations will also include provisions regarding disposition of remediation funds and a cap on collections.

Use of the remediation fee was also intended to address the issue of assessing fees according to the quality of sewage sludge. The remediation fee is higher for sewage sludge generated at pretreatment publicly owned treatment works. Generally, such facilities have the potential to produce sludges with higher levels of contaminants that non-pretreatment facilities. For more detail on the agency's intent see response to section 47-38D-2.0. Definitions - "Pretreatment Publicly Owned Treatment Works".

Section 6.1. has been modified to reflect concerns expressed by commentors that the existing language could exempt permitees subject to other permit fees from paying the land application fees. While that point is moot for solid waste facilities, see modifications to section 4.1., it may be applicable to modifications of WV/NPDES permits. In response, the agency has modified this section to read "Any producer or importer of sewage sludge intended for land application shall be subject to...".

ATTENDANCE LIST
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JUNE 24, 1993

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Max Robertson:

I am going to just make a brief overview of the regulations before you. The purpose of these regulations are to implement a program for the efficient management of sewage sludge in the State of West Virginia. These regulations have been promulgated by order of the Legislature through Senate Bill 288 which was passed April 10, 1993.

These regulations establish requirements for obtaining permits for all facilities and activities which generate, process or dispose of sewage sludge. Included are requirements and standards for the use, disposal and processing of sewage sludge encompassing incorporation of 40 CFR Federal 503 citing restrictions and location standards for land application, facility design and operations, leachate management, storm water management, operating and maintenance manual for monitoring, sampling and analyzing sewage sludge and the finished compost product, record-keeping and reporting and, of course, assessment of fees for disposal, land application and environmental remediation. That's a brief summary.

Helen Burgess:

My name is Helen Burgess and I'm from Wetzel County. Six years ago in May, a man came to Charleston with his attorney from Pennsylvania. Pasquale Mascaro was his name and Bill Fox is his attorney. All of you in Charleston know him well. He's still coming here. He's still getting what he wants. We fought him six years about garbage and now it's sludge that we're fighting. Next year what is it going to be?

To put it mildly, I'm outraged what you're allowing here in Charleston. Nobody else is allowing it but you folks in Charleston to happen to our State of West Virginia. We're known all over the country as dumb hillbillies, people that don't care, people suffer from apathy and this is not true. We do care and we're not going to let you do it to our state.

This is an article that was sent to me from Charleston here. It was out of the Charleston Gazette, May 23, 1993, "Ex-Caperton Aide Rejects Waste Job". Does that tell you something? This Mascaro wanted him to go and use his, I guess, influence with the Public Service Commission. That tells me something. Something still stinks here. I've said it for six years and I'm going to keep on till I get to the bottom of it.

We're not going to allow him to do this. Have anyone of you gone to New York for all of this sludge that's coming to Wetzel

and Brooke County? The DEP director told him to come down here and bring it all in here without paying the state one penny and put it on the ground.

Have you ever read what's in sludge, what it causes? I've got it here and what it will cause, all the illnesses. The State of New York bothered. That's why it's coming to West Virginia. They think we don't care that we will suffer from hepatitis and all the diseases that comes from it. The State of Texas has come to the same conclusion what is in sludge. And we're not going to allow it. We are not going to allow it. I hope this message gets across.

I have already contacted the Justice Department. Let me read you the things here. The term sludge means solid waste, semi-solid or liquid waste generated from a municipal, commercial, industrial waste water treatment plant, water supply treatment plant. The term solid waste means any garbage, refuse, sludge from a waste treatment plant, water treatment plant or air pollution control facility and other discarded material resulting from industrial, commercial, mining and etc.

Let me read you another article. This came from Texas and it's a thorough explanation of it. This is from an assembly that introduced the bill in the State of New York and this is what it says, "Sludge means any solid, semi-solid, or liquid waste generated from a waste water treatment plant, water supply

treatment plant or air pollution control facility but does not include the treated (??) from a waste water treatment plant or the food processing waste generated from a food processing establishment. Septige means the contents of a septic tank, cesspool or other individual sewage treatment facility which receives domestic sewage waste. Sewage sludge means the accumulated semi-solids or solids resulting from treatment or waste waters from publicly or privately owned or operated sewage treatment plants." This is from New York. That's why they are sending it to West Virginia, folks. They don't want it dumped on their ground in New York. And, in fact, they're not going to because it's going to ruin their agriculture ground there.

I've got some more articles here that I would like to read to you about what diseases it causes. Domestic sewage is waste and waste water from humans or from household operations that are discharged to or otherwise enter treatment works. Sewage sludge is a solid, semi-solid or liquid residue removed during treatment. Sewage sludge shall not be applied to the land. If the application is sewage sludge, would restrict the flow of base water, would reduce the temporary water storage capacity flood plane or would pose a hazard to human health, wildlife or land or water resource because of sewage sludge in the water run-off from the flood base.

Wash-out of sewage sludge shall not pose a hazard to human health, wildlife or land or water resources. There is every

reason to assume that sewage sludge applied to frozen snow-covered or flood lands would readily be transported off the site with the first melt or rainfall into the river or stream.

And, folks, this time it's been dumped on the Blake Farm in Wetzel County and it was permitted by Charleston. That's who is letting them do this. Pathogenic diseases include cholera, ateric(??) fever, meningitis, carditis, central nervous system involvement, pneumonia, infectious hepatitis. This all comes out of sludge. The benefits of using sewage sludge to improve land productivity are substantial. However, if sewage sludge containing high levels of pathogenic organisms, viruses, bacteria or high concentrations of pollutants is improperly handled, the sludge could contaminate the soil, water, crops, livestock, fish and shell fish. Folks, this comes from New York. That's why they don't want it up there. Ms. Ballard, that's why it's coming here. Here to West Virginia. They don't want it there. We don't want it here either. We don't want to be their toilet and we're not going to let it be their toilet.

The major human health environment and aesthetic factors of concern in the land application of sewage sludge are related to pathogens, metals and persistent organic chemicals. That won't shut me up. One important limitation of the assessment of exposure through food is the projected effects estimated only for sewage sludge applied in a single year. I could go on and on. I could tell you what the EPA says about it.

In fact, I want to read just a little bit what the EPA says about it and then I want to read an open letter from my husband and I to you. I'll read this. It's an open letter to the citizens of West Virginia and their elected government officials at the local, state and federal level regarding out-of-state garbage and sludge. "Why is it that good, just, right and logic seems to always give way to greed, injustice, wrong and stupidity? The pure indignity of the matter begs for reasonable resolution. I'm going to take my garbage and dump it in your yard. No, you emphatically say. You can't do that. You're violating my property, my birthright, my ecology and my natural resources. You must dispose of your own garbage in your own way and you cannot and will not violate my land." Certainly a reasonable dumper would agree with the dumpee and, in fact, personal property law would most likely support the dumpee's position and enforce the requirement that the dumper dump his trash elsewhere. Makes sense, seems reasonable and the outcome described is supported the logic, justice and good common sense.

Why is it then that when we elevate this illustration to the state level it becomes okay for one state to dump it's garbage in another state? How can a citizen or a government official of West Virginia support the hills and valleys of this incredibly beautiful landscape being defiled by the trash and sludge of our sister state? Shame on you.

Of equal concern is the mentality of those in other states who think it's okay to dump one state's garbage in another state. Are the Poconos of Pennsylvania more pristine that the hills of West Virginia? Let's haul garbage to the Poconos, the (??), the Alleghenys, the Catskills. Let's defile western Maryland, southern New Jersey, the Berkshires of Massachusetts, the Pikes of New Hampshire and the Greens of Vermont. No, you say. You can't do that because you would violate the natural beauty. But come to West Virginia. Why is that? Interestingly, it is not the government of any locality or state that is sending garbage to West Virginia. No, it's the free enterprise that has turned West Virginia into the toilet bowl of the east.

The greedy free enterprise set and stupid West Virginia politicians create a marriage made in heaven for the greedy free enterprise set. The free enterprise set is greedy because all they are about is making money and very little of it is staying here. They charge municipalities and the congested northeast corridor exuberant fees to dispose of garbage than other wastes. Some of it is hazardous. There is more waste created than can be disposed of locally at great expense. The stringent ecological requirements and high tipping fees or they can haul the garbage and dump it elsewhere. Someplace say where the tipping fees are peanuts. And West Virginia's is peanuts.

The ecological consequences are of no concern and where I

get little or no resistance from government. And they're not getting resistance from you-all down here. Bingo! I'll dump my garbage in West Virginia. They welcome me, charge me very little and have no mechanism of surveillance or audit, and I know that's a fact because I surveilled them for almost six years, to monitor my compliance with any guidelines that might be in place.

Can you imagine how the mind of the free enterprise set must be bobbled at the thought? Imagine, paying Wetzel County, West Virginia, 50 cents per ton to fill it's landfill with garbage and sludge and other waste from other states. Just how stupid can the government of West Virginia be to allow such a indignity? If you're going to be the toilet for the northeast, at least have the dignity and business acumen to be an expensive toilet. Participate in the free enterprise system. Make money. Get your share. Be smart. Play the game. Match greed with greed.

Does anyone ever stop to think how the free enterprise set can afford to buy trucks, hire drivers, pay slick lawyers and donate significant sums of money to local charitable causes all in the name of dumping garbage in West Virginia instead of New York? There is a lot of money in garbage and the free enterprise set is growing rich at the expense of the people of West Virginia.

Wake up, West Virginians. Demand your share of the pie. Either get your share in an economic share or protect your

birthright, your ecology and your natural beauty. Do not allow yourselves to be had. And that's what we're being by those who care nothing about you or your state. Let every citizen be heard and let the message be loud and clear. We will not be fooled by the free enterprise set. Either our state gets rich from your stinking garbage or you haul it back from whence it comes. Thank you.

David Grubb:

Thank you very much. I always try to be very precise in my presentation. My name is David Grubb. May it please the division, I am an attorney licensed to practice law in West Virginia. I also serve as the Executive Director of the 20,000 member West Virginia Citizen Action Group and I'm also the junior senator from the 8th Senatorial District representing Kanawha County.

I would like to at the outset submit our written comments and as I do so, there are 13 pages of fairly involved comments and I would like to publicly thank our summer intern, actually a longer term intern, staff intern, Jed Priddy, for his work on those regulations. A great deal of research went into them. Both looking into the federal regulations, as well as the state statute, the state code and other states' handling of sewage sludge management provisions.

At the offset I would just like to state that I'm here to try to set the tone for what will be many comments that follow. There are some severe concerns about these proposed regulations. Concerns that generally fall into one or two major areas. The most important area I feel comes under the heading of to what extent these regulations actually carry out the intent of Senate Bill 288. And I'm concerned that in provision after provision, there are either direct conflicts or sufficient ambiguities that

need to be clarified and that is the substance of what most of our comments are directed toward.

I think one of our first concerns is the wholesale incorporation of the Federal 503 Regulations by reference into these proposed regulations. Specifically, we feel like it creates a number of problems because there is specific language that the Legislature placed in Senate Bill 288 that at times is in conflict with the regulations in 208. Either we would further them or we did something totally different then the Federal 503 Regulations. And the problem is that when the 503 Regulations are incorporated by reference it creates some kind of confusion about many of these provisions. And let me give you some examples.

One of the concerns is how we deal with dedicated sewage sludge disposal sites. In 288 we prescribe them. However, in the Federal 503 Regulations they are permitted. 288 also mandates, and I believe that Senator Macnaughtan will be dealing with this in much greater detail, mandates the maximum levels in land applied sewage sludge be compatible with background metals levels in the recipient soil. 503 explicitly ignores these kinds of background levels. 288 enumerates a long list of reporting requirements. A few of which are really present in the 503 Regulations.

So we think it's important that the division take the

comments that we have provided and that others will provide, go back and rewrite these regulations so that you look at 503 not as something to be incorporated by reference, but as a starting point. Use 503 but then make the changes to make sure that it is, in fact, consistent with the intent of the Legislature.

And let me underscore one point, too. As the Vice Chairman of Legislative Rule-Making Review, we got into some trouble this year. I'm not talking about the supreme court case. I'm talking about the timbering regulations in the timbering law. As you know, when we came to the point of passing that regulation package, it occurred to us that the rule that was proposed promulgated, came through Rule-Making Review, actually exceeded the scope of the statute. For that reason we ended up taking out that timbering language. I'm specifically referring to -- well, I'm sure you know the language I'm referring to, but the point is that we are as a committee going to be much more careful in the future in how we deal with proposed regulations, the extent to which they exceed the scope, the extent to which they are consistent with the Act. And if the language is inconsistent or if it exceeds the scope, we absolutely are not going to permit that regulation to go forward. We are going to require it either to be modified or we're going to reject it outright.

I believe that Senator Macnaughtan who also serves on the committee with me will concur on that opinion and we've talked to both the chairmen of the committee, both the house chairman and

the senate chairman, and they agree that we have to be very careful in what kinds of regulations we allow to go through the committee. So we're going to be very careful on that. And that's, in a nutshell, the major concern that we have is that these regulations exceed the scope or are in direct conflict.

I'd just like to say that one other concern we have in reading through the regulations, there's a lot of others, but one of the concerns we have is the dealing of the POTW's. If you look at the legislative history, it was fairly clear on both the house side and the senate side that we wanted to try to do everything we could to make sure that the POTW's were not damaged, harmed, hurt in any way by these regulations.

Unfortunately, the way the regulations came out we feel that there is some severe hardship created on the POTW's and we would encourage the division to revise the regulations to make sure that we do in fact treat the POTW's fairly. I think there's a way to do it within the rational scheme of the legislation that will allow us to let them do what they do well and not actually treat the problem, which the regulations and the law, I think, originally intended to address. Thank you very much.

Herb Rice:

Thank you. I have some comments here which I'm going to hand in. I'll just cover a couple of the high points. I have three points of general interest that I'd like to mention here. The first one is, which I'll read from my written comments, Senate Bill 288, now West Virginia Code Section 25F-2B, specifically instructs the director to promulgate rules to regulate "the efficient and orderly regulation of sewage sludge". I therefore object to the proposal inclusion of composting of mixed waste, for example, as proposed in Section 1.1.1 and all subsequent comments to that.

Furthermore, I suggest that the composting of mixed waste be expressly prohibited at least at this time. Mixed waste is too general a term and it's inclusion is sure to promote abuses by a type of unscrupulous operators we have all come to know.

My second general objection is I get the impression on reading this big volume of information that when it comes to disposing of sludge or compost of sludge, there is not enough differentiation made between composted sludge and unprocessed sludge. And I think the two are significantly different, for example, in pathogens and odor they create and things like that. To my reading of the regulations there is not enough discrimination between how the two are going to be handled.

I think the one is why sludge possibly requires more careful regulation properly composted sludge. And my comments here, I have attached a copy of an article from Citizen's Clearinghouse of Hazardous Waste. I guess you're going to get a lot of articles along this line reviewing some of the objections to using to composting a mixed solid waste. My biggest objection is what the senator just mentioned. I don't think there's many people in the state anymore that think that the solid waste management section, in particular of the now DEP, is really that much interested in the welfare of the citizens. I think they're more interested in the financial welfare of the landfill owners.

I live in Tyler County but our immediate concern in that area is the Wetzel County landfill. We've been fighting the city for six years now. For the first six months we thought the then DNR was going to be on our side and protect us from these outside interests that were intent at that time, but dumped 48,000 tons of outside trash in our little landfill. We now know that's not the case. We do not consider the solid waste section of the DEP to be interested in us as much as they are interested in the landfill owners. At least some landfill owners.

You people are the servants of the people. We worked hard to get this legislation passed and I resent very much that these rules are, to me, an obvious attempt to circumvent the regulations. You are not the czar in serena(??) of sludge who

are going to impose your wishes on the peasants. The peasants will wise up. You know what happened to the last czar in serena(??). But hopefully it won't be that violent this time.

But you people in these agencies that are supposed to enforce the regulations, we are the boss. You do what we want you to do. That's what you're hired to do. You don't have you're own little agenda and go off and do it. Thank you.

Senator Macnaughtan:

Since I only have three minutes I'd like to try to keep my comments brief, try not to reiterate too much what everyone else is already saying. I have given you a copy of four pages of material which deals with 3.2.2.2 of Title 47 Series 38D of the sewage sludge management regulations. And in those regulations it sort of glibly refers to the maximum cumulative rates in 503 and that's what should be applied to the soil and so on.

In my mind that was not satisfactory. So what I have done is given you an example of one procedure for determining how much metals are in the soil, how much metals are in the sludge and, therefore, how much sludge you can apply to the land before you exceed limits which have been set in the 503 Regulations. I think these are self-explanatory and so I'll just make a couple of comments on them to save time. The whole purpose of the intent of the law was to make the metals concentrations in the soil to serve as a record of previous applications of sludge plus the natural levels of these metals in the soil. Therefore, maintaining records of the application are not necessary any longer and it also makes a reference in that paragraph to 503.1.2E2 as being totally unnecessary.

Point number two. There really are no requirements set forth for the analysis of the soil for these methods and I think in these regulations this must be done to fulfill the intent of

the law. In other words, how many samples are required to be taken per 100 acres or 10 acres to characterize the soil?

Thirdly, since only limited knowledge and understanding the adverse effects of the metals listed in the soil are known, it is best if we're on the conservative side until more is known about their effects. And I would submit that the West Virginia Extension Services had a sludge program for a number of years and they can serve as a valuable resource for setting these levels based on scientific fact and experience rather than that what's given on Table 2 of the 503.13. Those levels are kind of high. Chromium 3,000 kilograms per hectare. Pennsylvania suggests only 68 kilograms per hectare as a maximum. Zinc and copper and nickel all might be trace nutrients for crops but in larger levels they are crop tart. They have a crop toxicity potential and the limits for those by our own people at the university are a good deal lower than what are given.

I would like to make one other comment on these. I would be very willing to help the DEP. Anyone on the DEP. I have a fax. I have a telephone. I can drive here. If anybody wants help setting these up or further explanations of these, I'd be very glad to help. A couple of other comments. I support Senator Grubb's comments on the Rule-Making Review Committee. We are tightening up that committee to make sure the rules are satisfied, the intent and fulfillment of the law.

One other comment. It is the intention of the legislation that was passed, Senate Bill 288, which I have right here, was the intention of that legislation that tipping fees be paid and tonnage recorded on all sludge deposited in solid waste facilities, not just in some or for some people.

Number two. Separate permitting should be done for all sewage sludge processing facilities, not just a simple modification of existing solid waste facilities permits without public purview and so on and so on and so on. I will say finally that these rules are in need of serious revision to fulfill the intent of Senate Bill 288. And if you would like, I will provide you-all with a copy of Senate Bill 288 so that you can read it. Take these rules and rewrite them from scratch and not just adopt 40 CFR 503 Regulations. Thank you very much.

Steve Hannah:

Thank you. My name is Steve Hannah, Executive Secretary of the West Virginia Farm Bureau. We have gone through section by section and I will not take the time to read those to you. I have some concerns about the technical part as far as the land application. Two big concerns. Realizing the bill says the amount of tonnage that can be applied to the land, we feel that that is too much and probably should be reduced to 3 ton maximum per year.

Two other items that are quite bothersome to us. One is the fees. All through the regulation you talk about dry tonnage until you get to the fees. It's kind of amazing it jumps the wet tons. In remediation, we could find nothing in the Act that was passed or in 25A-6A that authorizes such fees to be collected. Again, we would recommend that that be changed to dry tonnage.

There is no reference as to how the program would be handled, who would monitor the program. Like Senator Macnaughtan, we feel that the West Virginia University Extension Service has the best capability of knowing the soils, knowing the plant's long history of working with farmers in the educational field. We feel that they should be the head agency as far as working with the land application.

Probably you and DEP needs one person to monitor that and,

if necessary, to take legal actions for those who do not follow the process. Over the years we've been very concerned about the number of times that the sludge has been tested. We think that the schedule that has been put in these regulations will help that considerably. It's not very often, a matter of fact, I don't know if I've ever done it before, the farm bureau or I or the organization, has ever encouraged any bureaucracy to adopt regulations but this is probably a case where regulations need to be adopted so that assured that all application of sludge on land, particularly farm land, is done right, very carefully and monitored during the process. I'll not go through the details. I'll give those in writing. Thank you.

Robert Bricker:

Robert Bricker of Morgantown, West Virginia. I'm a graduate research assistant at West Virginia University. My comments are not to be construed as to reflect a position of the Division of Plant and Soil Sciences or the Extension Service or any other entity of the university.

I'll mention that in my research directly involves the application of sewage sludge to the land for beneficial use and I would have a technical knowledge of the contents of sewage sludge, the regulations concerning it and the options for disposing of it.

Mr. Reinlander, by necessity of appropriate management of sewage sludge is essential to maintaining sanitary conditions within and around West Virginia's communities. Like the waste water from which it is derived in the solid waste with which it is sometimes disposed, sewage sludge is a potential source of disease and has contents which may be environmentally harmful. Because of the lack of regulation and the stringent monitoring program, the Legislature has directed DEP to promulgate regs governing the safe disposal of sewage sludge within West Virginia's borders.

The regulations should deter abuses of our natural resources as well as provide direction for our communities. The

regulations should reflect the intent of 40 CFR 503 and the intent of West Virginia Legislature as it has directed. As I have reviewed promulgated regs, consider my comments as follows. Under the section concerning agronomic rate, you should include phosphorus in the definition of agronomic rate. The concern being to minimize the amount of phosphorous which runs off into surface waters. Many agricultural soils already have the amount of phosphorous required by the crop that is grown on them.

Include in the definition of sewer separated organic materials, newspapers and perhaps other papers such as shredded phone books. The primary fiber in newspaper is cellulose. It's a biomolecule paper that grades more readily than wood waste which is already included in that definition.

In paragraph 3.2.1.A of these promulgated regs, to delete the words "were known to be flooded on a regular basis", that is ambiguous. You might add in that section a paragraph saying, "Land that is frequently or occasionally flooded as defined by the soil survey staff, the soil conservation service." I believe that will meet the intent of that provision.

Also other provisions that should be included under section 4.2.3, provisions for periodic monitoring of ph and metals to 30 years time, information relative to percent solids by weight in the sludge, information relative to phosphorous content of the sludge.

Also included in the regs should be a definition of the sewage sludge products. The definition to include the substance derived by mixing the sludge with a bulking agent. My purpose for this is bulking agents may contain such compounds as persistent organics. The resulting mixed substance would be possibly toxic. Actually, there should be a dedicated fund that is a statewide revolving account for the improvement of waste water treatment, sludge management or storm water control. I find it is appropriate that fees are assessed on a wet ton basis as this would encourage publicly owned treatment works to improve the quality of their sludge by dewatering it.

The fee structure proposed in the regs concerning pretreatment and non-pretreatment publicly owned treatment works reflects a lack of understanding of the very nature of sewage sludges and the purpose of these regulations. As directed by Senate Bill 288, Section 25F-2B, paragraph B12, these regulations are to include a fee structure based on volume of materials handled in a contaminate level of the sludge. The primary need for sewage sludge management regulations is to limit and monitor the contaminants typically found in the sewage sludge. These regulations, as proposed, provide a framework for sewage sludge management. However, they are incomplete.

I recommend that these regulations be rejected and new regs be promulgated reflecting the intent of the Legislature. I might

add to this, as a soil scientist I would concur with Senator Macnaughtan's remarks concerning the appropriate analysis of background metals and soils and determination of the metals present. Thank you.

Jeff Boles:

Thank you. As a Recycling Director for the City of Charleston, I have just very few comments, so I'm going to direct my comments to two pertinent areas. The City of Charleston, after considerable research in this area prior to these regulations being promulgated, in fact, prior to the Legislature actually going into the issue on Senate Bill 288, had decided that composting of sewage sludge, yard waste and some low grade mixed paper waste was a viable option for reaching the 50% goals mandated by Senate Bill 18.

However, these regulations which seem to us to go much farther beyond the intent of the legislation have made that impossible. I speak particularly to 3.3.1D. The requirement for liners and a six inch slab of reinforced concrete on the entire permitted area of the compost area is economically unfeasible for anyone to consider. Of the over 200 municipalities in the United States that we've researched that are doing co-composting of sludge with other mixed waste and doing it successfully, none of them had to face this kind of economic hardship.

Considering the equipment that would also be required, frankly, it puts it beyond the pail for the City of Charleston to even consider doing any form of composting because without the sewage sludge, with the additional cost of disposing of it elsewhere, we could not afford to consider the equipment and the

preparation for any kind of a composting sight. And that's certainly a waste because I consider composting as one of the most exciting and most potentially beneficial recycling activities available to us.

With all the other materials that are considered recyclable, the inorganics, the metal, the paper or the glass, the plastics, still amount to only a fraction of the organic waste that are disposed of in the Charleston landfill. The wood construction of demolition wastes, other organic construction wastes, the yard waste, the food waste, all these things which are being composted elsewhere with sludge and being done successfully, amount to over 70% of what's going in the Charleston landfill now.

But these kinds of regulations make it economically unfeasible to even consider it at this point. The other part is the fees. The fees would make it impossible for the sanitary board to even begin to deal with this issue. So as they're written now, these regs seem to go much farther than the intent of the legislation itself which was hotly debated and make it impossible for us to consider what may be the most exciting and one of the most viable recycling methods possible for municipal solid waste. Thank you.

Delegate Pethtel:

Thank you very much. I am Dave Pethtel. I've been the delegate in Wetzel County for five years and tonight I want to speak to you just from a (tape over) and I can tell you pretty well is what the people in Wetzel County want and what they don't want. And I can honestly stand here and tell you that particularly within in the Solid Waste Division of the DEP, that the people in Wetzel County have no confidence at all. They view this agency pretty much as an agency that when the Legislature passes bills, passes legislation, then that is, you know, pretty much ignored.

And we can go all the way back to the beginning when out-of-state garbage started coming in and, also now with sewage sludge. And I certainly believe it was not the intent of the Legislature to grandfather in, or attempt to grandfather in, any solid waste facilities or also to exempt anyone from fees. And that's just two areas of concern, and I know that you're going to hear from other people in Wetzel County about some of the other concerns that they have, but I would certainly hope that this agency could go back and take another look at these rules and regulations and try to get them in compliance with the intent of the Legislature in Senate Bill 288. And I can promise you that if that's not done that we will revisit this issue once again during the next session of the Legislature. Thank you.

James Kotcon:

My name is James Kotcon. I'm speaking on behalf of the 1,200 members of the West Virginia Sierra Club. I have submitted several pages of detailed comments on these regulations but I'm going to step back just a second and speak to you instead about a few points of general philosophy and where I think these regs have failed.

The first is before you can get into the regs, you had a page on the fiscal impact of these regulations. That page is greatly untrue. Anytime you have regulations proposing fees you have a fiscal impact on the communities, on the effect of industries, on the people. Furthermore, the way these regulations are set up, the state has effectively acquired a fairly significant financial liability because by setting up the fee structure the way it has, without requiring the shirted bonds that are authorized under Senate Bill 288, it is clear, I think, that the state acquires any financial liability from any environmental disasters that are out there waiting to happen and I think that is an issue that you need to take a very close look at.

Second issue is the concern about incorporation by reference. I don't think that is even constitutional. It's very difficult for me as a citizen to know what is meant by some of those definitions. I think that if you are going to have

regulations, you ought to spell out what is meant by a pretreatment publicly owned treatment works versus a non-pretreatment publicly owned treatment works. I still don't know what the answer to that question is. I asked several people at West Virginia University. They don't know what the answer to that question is. And that is the basis on which you are regulating sewage sludge. The regulations need to be more clear than that and they ought to incorporate the specific definitions and the specific levels that you are regulating on.

And the third, and probably the most important, is what we're all here for. These regulations should distinguish between good sludge and bad sludge. Good sludge is the stuff that you can compost and you can mix it in your garden and you can grow good corn with it, and that's the stuff that West Virginia wants to produce. Bad sludge is the stuff that has lots of heavy metals and it's got pathogens and that is the stuff that needs to be regulated and that's the stuff that needs to have full restringent fees on it. These regulations don't make that distinction and until they do, the regulatory program won't meet West Virginia's needs.

I suggest that you need to start out distinguishing between good sludge and bad sludge based on all the criteria that the technical experts have and I think that you ought to encourage beneficial uses of good sludge and regulate the hell out of the bad sludge.

I suggest that the size of a disposal facility in these regulations is grossly out of proportion. You set up Class A sewage sludge disposal facilities as maximum 30,000 tons a month. The entire state of West Virginia, I don't believe, produces 30,000 tons a month. New York City produces 30,000 tons a month. These regulations should be geared toward what West Virginia needs, not for what New York City needs.

And so I'm going to suggest that you need to start out with a new premise. Figure out the difference between good sludge and bad sludge. Do this in an effort to promote the public welfare and environmental protection. I think if you had a problem in that your initial premise was to try and get a few large polluters under control and instead of focusing on environmental protection and promoting the general welfare, you came up with regulations that will legalize a few large polluters. Your premise should not be to legalize some large polluters, it should be to distinguish between good sludge and bad sludge.

And so I'd like you, Max and Ann, withdraw these regulations, go back to the drawing board and start over on them, please. Thank you.

Steve Larose:

Thank you. I'm the Mayor of Summersville and I'm here representing the City of Summersville and several other small cities in West Virginia who have sewage treatment plants.

Normally, I'd be here complaining about regulations and fees that Elijah is trying to put on me. I believe that the regulations need to be put into effect. Small cities need to have regulations on we're putting our sludge, how we're doing it and any other person who is producing sludge in West Virginia.

I want my state and my city to be the safest place we can live. We have a large lake up there and we don't want to put pollutants out to pollute that lake. We don't want anybody else to put pollutants out. There has been comments tonight, you know, I've been a politician, I wondered what a politician was, well, I learned tonight what a politician was and that we probably are unscrupulous. Well, I want to tell you that people here, the senators and delegates and these people, have worked very well with cities like Summersville.

We're trying to regulate an industry that needs regulated and each of us are trying very hard in our own way to protect you and your citizens and I wasn't going to say much but I put a little small letter in. Elijah already knew what I was going to complain about. But I think that someone needs to stand up and

say, "Hey, we're trying our best and we're not on the take, and we're not being here to hurt anyone in West Virginia. We're trying to protect West Virginians. Each and every one of you."

There's 230 some-odd cities and if these regulations go into effect, they'll protect those people in those cities. Now, they may not be the best regulations in the world. That's why each and every one of you should put some input in to fine tune that regulation. But to accuse each and everyone of us of being unscrupulous and corrupt is crazy because we give our time for what we make and put back into these small towns is ridiculous.

And we disagree a lot on a lot of things but, you know, for people to stand there and say that about them is ridiculous. The one thing that I've complained about, like we said earlier, the dry base is spoken about all through it. When you look at the (??) taxes on the flood base, the City of Summersville, that would be a 25% increase in the water/sewer rates of each customer and those of you who speak of taxing of more, what you're going to do is going to tax yourself. You're going to tax the cities of West Virginia and this fee should be taxed on a dry base.

So if you propose taxing, what you're going to do is you're going to tax yourself. People on fixed incomes in Summersville can't afford anymore taxes. We need to make sure that rate is set on a dry base. I have no problem with dry base because it won't be insignificant. But they need money to go out and do

what you-all want, to police the industry. So that's why I'm not opposed to a fee. I think it should be uniform throughout. Each city in West Virginia has different levels of sludge. You know we have liquid so, you know, we're probably the heaviest producers. I think Beckley, they are on liquid but, you know, other cities have 50%, 20% on a dry basis, so we need to look at that and I commend you on trying to take action to protect the people of West Virginia. And I hope you will look at what we have said about the wet and dry base and I thank you.

Sue McGuire:

I'm Sue McGuire from Ritchie County and I'm going to make my comments brief. I'm just going to read from my written comments. The proposed rule doesn't contain the necessary means for implementation of a comprehensive program for the regulation of sewage sludge mandated in West Virginia Code 20-5F-2B. There should be specific reference to enforcement of the rule of the state and on a county level.

On the fiscal note page under B.2, sewage sludge processing facilities will profit from inputting sludge. Under B.3-A, the intent of the law was not to make operations cost prohibitive for POTW's or West Virginia farmers. Under C, public health and safety concerns could have a great economic impact with the potential of pollutants being introduced into the environment.

On page 7, 3.2, the standards are not strict enough to discourage large quantities of sludge from coming into the state. Especially when other states have stricter standards than 40 CFR and 503. On page 16, 5.4, subpart E, "Incineration", 40 CFR and 503, I think it should be deleted. In West Virginia new solid waste facilities are prohibited from utilizing incineration technology.

On page 19 in the Appendix A, something should be added to provide a monitoring system from material en route to a

processing facility. Each truckload should be required to have a manifest showing location and time of travel. This will provide documentation of the material to help prevent contamination by illegal dumping of toxics into the sludge. Thank you.

Tom Degan:

My name is Tom Degan. I've generated quite a lengthy comment with quite a few specifics. I can't go into them here in this amount of time but I would like to hit on some of the major points.

I guess first off I'm concerned it does not appear to me that this regulation satisfies the intent of Senate Bill 288 or does 503. There are many places in 288 that would require us to be more stringent than 503 and the incorporation of 503 seems to run contrary to that intent. I find many, many areas where there are discrepancies between the intent and what this rule accomplishes. I'll leave most of that to my written comments.

However, I would like to point out in the definitions the classification of a Class A sewage sludge facility is grossly oversized. The sludge generation rate per person per year is much, much less than the garbage generation rate per year and to use that same sizing for sludge facilities as solid waste facilities ends up to an oversizing of probably about 5 times, even when you include your bulking agent that would be added.

I think that the facility size should be downsized something to the order of Class B being capped at 2,000 tons per month, Class A capped at 6,000 tons and to avoid confusion, I think the Class ABC has got to go. You'll have to have Class I, II or III

or something for a sewage sludge facility.

I also think that facilities that handle mixed solid waste with the sewage sludge should be given a completely separate status. As for the bonding, 288 required bonding. It doesn't appear anywhere in the rule. I think the remediation fee was an attempt to achieve the same end but I believe it leaves the DEP responsible for environmental remediation. To me that's unacceptable. The polluters should be the one responsible.

In the bill, the bonding was made optional. It was "may require bonding" and I think the intent behind that was not to require a bond of every single land application. If some realistic metals and pollutant levels were utilized, such as Senator Macnaughtan and others have proposed, and given the agronomic rate, I think a lot of land applications don't really pose the kind of threat that we would want to bond. But I think the bonding should be reserved for large applications of sludge, the applications that are allowed to go above the agronomic rates such as the 25 tons per acre on reclamation, land applications that involve sludges that were processed with mixed solid waste, steeper slopes.

I think that the bonding can be tailored and required of a land application project that was much more likely to present an environmental hazard or a health hazard. I was present at the Legislature and spent a lot of time on this bill and as far as I

could tell it was never the intent to be hard on the POTW's or rather I should say it was the intent to try and have a minimal impact on POTW's.

The liner requirements are unrealistic, unachievable. Especially considering a lot of the smaller facilities that we have. I mean some of the POTW's we have. If there was a spill there it would amount to a land application. I don't think a six inch slab of concrete with two feet of clay reach a collection and detection and six inch sub-bases appropriate or realistic. Thank you.

Martha Huffman:

My name is Martha Huffman. I thank you for allowing me to address you this evening. I'm speaking on behalf of the Wetzel County Solid Waste Authority. And in reviewing this document, the Authority found so many gross inconsistencies, not only between these rules and regulations and the intent of Senate Bill 288 but within the document itself, that it was difficult to determine whether the recommendation should be to change specific passages or to start from scratch.

We chose to offer specific comments as well as offer the strong suggestion that the writers of these rules and regulations go back to the drawing board and make the rule reflect the contents and the intent of Senate Bill 288. I'd like to start out by saying that the fiscal note for proposed rule where it states that there will be no fiscal change, as a result at this Solid Waste Center Agency Coordinating Committee meeting this was discussed at length. Mr. Cook explained that the reason why this was written this way was because everybody else did it that way.

But, in fact, there is a fiscal impact and I think that the fiscal note should reflect that. Just the fact that under the previous policy of the DEP that was adopted after the Office of Waste Management was transferred from the DNR, on one contract, the Nassau County contract that was coming to Brooke and Wetzel Counties, the State of West Virginia was losing one million

dollars in tipping fees alone because of the policies of the DEP. And it was costing the host county solid waste authorities $49,000 per year in lost fees. So to say that there is no fiscal impact is truly a false statement.

The second thing I would like to address is Section 4.1.3. The Wetzel County Solid Waste Authority has many major problems with this section. Not only as it applies to Wetzel County but the impact it will have upon the entire state. Quite candidly, the subsection creates wretched state policy. The permit issued to the Wetzel County landfill permits SW1021-92 under E Permit Conditions, Section 1 states, "This facility submitted the module AMPDES application. Incorporation of Module A into the solid waste facility permit is required and will constitute a major modification." I would like to also reiterate that under mega-modification there is supposed to be public notification and opportunity for public comment. That has not occurred yet and all related regulatory requirements must be met thereunder.

Yet 4.1.3 states that a sewage sludge processing facility modification, not major, modification will be obtained. Not might be, will be obtained, emphasis ours, as a part of the existing solid waste facility permit and shall include a sewage sludge management plant. They treat the sewage sludge processing facility as a minor modification. There are no provisions for public input, no requirement to such drastic change and land use would have to comply with the county or regional solid waste

authority citing plan, no requirement of county or regional solid waste authority approval.

Furthermore, the language "will be obtained" nearly implies a mandate that the DEP ground such processing and facility modification to any permitted solid waste facilities, be it a recycler, a transfer station or a landfill. Requirements for a permitted solid waste facility to receive a sewage sludge processing modification are less than stringent than those that are required for POTW's.

Under 25F-2B-12C, POTW's are required to receive a permit while permitted solid waste facilities are required by the proposed rules only obtain a minor modification. It is apparent to the Wetzel County Solid Waste Authority that any permitted solid waste facility seeking to process sewage sludge should obtain a permit as required for POTW's and that such a permit be subject to the provisions established within the local or regional solid waste authority citing plan.

The sewage sludge processing facilities are expressly or tentatively prohibited within the host counties plans or the proposed sewage sludge processing has not been designated as an acceptable area. The permitted facility must first obtain approval from the regional or county solid waste authority before the DEP can issue the sewage sludge processing permit.

In the same manner, POTW's are required to obtain an additional permit even though the volume of sewage and sludge remains constant. Permitted solid waste facilities will be seeking a permit for a new activity upon a preexisting site. They will still be bound by the tonnage limits and fees required in 25F-28-12 of parenthetically obtaining the sewage sludge processing permit for a permitted solid waste facility should be treated as a major modification to an existing facility and subject to all provisions within 3.1.8.

The other thing that we found noticeably lacking in these rules and regulations is you should have an entire new section, 47-38D-7 Enforcement. There are absolutely no consequences under this rule for noncompliance. Our Authority suggests language be adopted to issue citations for noncompliance and place the offending generator or importer on a compliance schedule to remediate the violation.

We further suggest that if the violator doesn't come into compliance within the time frame required, the fines be levied. We further suggest the language be included to authorize the director to revoke the permit of an importer or generator of sewage sludge that doesn't comply or repeatedly violates the provisions of Chapter 20 in these rules and regulations in regards to sewage sludge.

Language to spazz up the appeal process should also be

included in this section as well. If I can have a few minutes here to collect my thoughts, I'll be as quick as I can here. There was a section on the fees and there was a question of how the fees would be applied. I think that one of the things that needs to be looked at is that during the whole legislative process, one of the things that was constantly considered and discussed was what economic impact these rules have on the local POTW's.

And I think realistically there should be a land application fee for sludge management, but if you try and put an $8.25 a ton fee and it would be a wet ton fee particular, I think that's totally unreasonable. I believe, Mr. Cook, you mentioned today in the SWIC(??) meeting that the Tax Department had said that, "Well, this is just too cumbersome for us to sit there and figure out any kind of formulation of if something goes into a solid waste facility, is composted and then comes out." You referred to comments that were issued by the Tax Division. The Tax Division actually threw the ball back into the DEP's court and said that the DEP could, in fact, determine whether or not a realistic scale could come up and so I would seriously consider that you, instead of looking at wet tons and dry tons, look at actual weight. What goes across the scale? What does it weigh when it goes across the scale and what does it way when it comes out? Charge all applicable fees when it goes across the scale. When it comes out, weigh it. Whatever it weighs, deduct it from the monthly tonnage on that and refund the consumers that based

upon that month.

Also our Authority takes major and great exception to the incorporation of EPA 503 rule by reference. There are many places where 503 rule is in direct contradiction with the legislative intent of Senate Bill 288. I think that you need, and also is quite confusing, it's very difficult to look at the rules and regulations. I know that you guys are under the time and underneath a big gun and it was difficult to put up, throw all of this together. And Water Resource Division was looking at it and the Office of Waste Management was looking at it and it was a difficult task and I respect the work that you put into it.

But by the same token I think that you need to go back and specifically lift what definitions you want out of 503 and where they don't conform to West Virginia Code you should throw them out and you should replace them with language that does reflect the intent of Senate Bill 288. And that concludes my comments.

Agnes Mezzeska:

My name is Agnes Mezzeska and I am from Brooke County. If I were living in a housing development and I were to put compost on my garden, my neighbors would surely turn me in. Well, that is what I am here to do. I'm like a certain neighbor who is an official at the landfill. I live only 700 yards from the landfill. I look out my back window and there it is. Mounds of garbage covered with sludge. This isn't our sludge. Why should I have to put up with this?

I can't plan any activities. I don't know when they are going to spread the sludge. I don't know what the weather conditions are going to be, the wind directions. I have to have air conditioning in my home. It's nauseating. I came home one night. I could not eat supper because of the smell.

To the gentleman who said sludge is exciting, you're invited to my house for a picnic. I could see if it belonged to us but it doesn't. There's a computer game out that each state has a symbol. Guess what the symbol for West Virginia is. An outhouse. And that's what we're talking about tonight. Thank you.

Missy Wolverton:

My name is Missy Wolverton. I'm a resident of Charleston and I appreciate the opportunity to speak at this public hearing. I'm going to address my comments to the incineration section of the regulations.

First of all, what is the Division of Air Quality's rule to be in the administration of these regs? As late as yesterday it was clear that they had not been included in their review of the 503 or in the preparation of the regulation before us. This is totally inappropriate. It's imperative that all the sections of the Division of Environmental Protection that will have regulatory authority should have input.

I may skip around in here and try to go quickly. Incineration even at it's best is not an economically or environmentally sound management tool for handling waste. The 503 supports the concept of beneficial use, yet the incineration of sewage sludge with it's attendant, air, water and soil contamination potential, is hardly beneficial use of the sludge. Since it was clear the intent of House Bill 2445 to prohibit the burning of solid waste and incinerators, I would ask that the state diverge from the 503 and disallow the burning of municipal solid waste as an auxiliary fuel in sewage sludge incinerators.

Better yet, they should ask the Legislature to extend the

prohibition on municipal and commercial solid waste incinerators to include new sewage sludge incinerators during the next session.

Another area of concern with the 503 as it relates to sewage sludge incinerators is that it evaluates only one assessment pathway. That's pathway 13 inhalation and does not take into consideration indirect exposure route such as the consumption of the food in the area. Dioxin, a known carcinogen and immune system suppressant, is present in the stack emissions and ash residue of incinerators. Dioxin is known to biocumulate in fatty tissues and in the milk of humans and animals that eat or drink products contaminated with dioxin. We should be examining food chain exposures when we assess the risk of incineration.

And I cite here some of EPA's own documents that does look at other noninhalation exposures. Most notably, food chain exposure. I've also enclosed in these comments a January 22, 1993, memo from Richard Guyman, who is the acting assistant administrator to Carol Browner, Administrator of the USEPA, relative to the WTI hazardous waste incinerator in East Liverpool, Ohio. "While dismissing green pieces used of the Office of Research and Development's draft document estimating exposures of dioxin-like compounds to show that the risk from consuming products from cattle raised near the incinerator can be 10,000 times greater than the risk from inhalation." It does state that, and I quote, "A preliminary assessment done by ORD

does show risks from beef and milk consumption that can be 1,000 times higher than the risk from inhalation near the WTI facility." As for the stack hide option in the 503 as a means of meeting numerical pollutant limits, before installing expensive air pollution control equipment, raising the stack does not reduce the amount of pollutants coming out of the stack. It simply disperses them over a wider area.

As for the National Resources Defense Council and Environmental Defense Funds' joint summaries of comments on the 503 proposed sludge rules, "Tall stack credits for dispersion was to not consider post deposition exposure, would actually allow for increases in the total mass of pollutants submitted and must be prohibited for all current and future incinerators." They go on to say that the EPA must establish a compound specific risk base emission standard with quarterly monitoring coupled with requirements for specific control technology and both minimum and maximum temperature controls.

THC monitors should, however, be required to continuously monitor control efficiency and I think they've done that. The 503 establishes a THC limit of 100 parts per million for sewage sludge incinerators. Hazardous waste incinerators are restricted to 20ppm. There doesn't appear to be any reason that sewage sludge incinerators cannot meet the same 20ppm limit.

Also EPA doesn't set a limit for copper and the reason I'm

citing all this is because we've incorporated, of course, as you know in our reg, they need to pick a conservative copper limit so that there's no related backsliding sludge quality. Thank you.

John Lezeska:

Mr. Reinlander, I'm John Lezeska. You only have a one dollar fee per ton on the sewage sludge that comes in. I propose a larger fee because our state will be buried under sewage from other states. If they can afford to send their sewage to West Virginia from the east coast, they can afford to pay an extra amount so West Virginia can profit from sludge.

Remember how the out-of-state coal companies came in and stripped the coal out of the strip mines and then left them? And the state is scarred by the strip mines because they just simply posted a small bond and then forfeited it. The bond could not cover the recovering of the highwalls and the soil banks. Possibly, with this extra fee the West Virginia people, the PTOW's, whatever they are, could get a rebate, taxablewise, to compensate for the extra cost.

Also I'd like to say an independent firm records tonnages at the landfills. Using the records from the landfill is like having the fox guard the chicken house. I'm sure that people are keeping correct records. I worked in an accounting office in the early '70s, Weirton Steel, and we were for double-check to keep accurate records. But our immediate supervisor fudged the figures to show different reports so that they could meet his boss' demands. So I'm sure something like this could be done.

The landfill keeps on showing less and less tonnage and people that live by it say they see the same amount of traffic going by it. It hasn't been reduced but the reported tonnage keeps dropping and yet these people are also asking for a larger rate to be brought in. Why would they need a larger rate if they can't even meet what's being brought in now? This is like the 15% grade. If you look at the old landfill there, it is larger than 15%, probably a 45% grade, and with the heavy rains we've been having in this area, that sludge is just washing off, rushing into the stream there, Stockington's Run(??), which goes down into the Ohio River and almost every city in the northern panhandle gets their water from the Ohio River. So these people are drinking this residue from New York and whatever diseases are in it.

Your frequency of monitoring, it should be at least on a weekly basis. Something has to be done to keep tabs on this. And the possible health hazard should be, you know, checked into. There's flies, mosquitoes, this (??), I'm sure from the sludge to spread disease to human and animals in the area. I thank you very much.

John Tuckwiller:

My name is John Tuckwiller. I believe that sewage sludge should be regulated. I believe the Legislature to solve a specific problem got out of hand. They worked too fast. They didn't listen to everybody. I believe the DEP under the gun again is making rules and regulations that will probably have to be reversed. I would recommend that everybody go a little slower. Thank you.

James Grady:

I know most of the people on the board, I think, that are here tonight. I have basically three items that I want to talk about. One is the fee structure. You know, wet ton basis penalizes a lot of facilities. I think you need to do it on a dry ton basis. You can calculate it. It's all the same across the board. Small/large facility, it's all the same. If you're going to do that, you're going to implement this fee because I don't see any way of stopping it, then I would suggest that you take into consideration that it's a pass-through because most small POTW's in the state do not have the budget and as you-all well know, there is a difference between a municipality and a public service district.

The public service district has to go to the Public Service Commission for approval for rates and at that premises, that's a year and a half down the road. So if you people are willing to wait for your money, we can do that.

Second item of concern is dual permitting. I understand that based on this process, MPDS permitting as well as the solid waste permitting, there's overacting regulations and duplication of work. I think that that can be streamlined more efficiently by government by the DEP to cumulate that process.

And in third, if the fees are collected then I would like to

see a yearly audit done by the Legislative Audit Team and be made public on a yearly basis so we can tell where the money is going and what it's doing. For that gentlemen, I thank you, and ladies.

Jimmy Kerns:

Thank you very much. The proposed sewage sludge regulations which are the subject of the hearing this evening will have a dramatic impact on how publicly owned treatment works operate in West Virginia.

The City of Wheeling, which I represent, operates a waste water treatment plant that produces approximately 8,000 tons of sewage sludge annually. Our current disposal method is to haul this waste to a licensed landfill and bury it. We believe this practice is not the best environmental solution for the disposition of this waste product in West Virginia nor will it be the most economical for cities in the future as landfill tipping fees increase.

The City of Wheeling requested modifications to our landfill and NPDS permits which would allow us to develop a more economical and environmentally sound solution to our sludge disposal process. These permit modification requests were submitted prior to the legislative amendments to 25F-2B of the West Virginia Code and the solutions were being designed to be consistent with and meet all the requirements of Federal Regulation 40 CFR Part 503 which regulates sewage sludge.

Federal Regulation 40 CFR 503 recognizes and regulates different processing methods for sewage sludge and the

disposition of the resultant product to ensure environmentally sound and safe solutions to the problem. The regulations proposed by DEP appear to go beyond 40 CFR 503 and permit requirements for sewage sludge processing facilities and land application requirements. These extensions beyond the requirements of 503 will create extreme hardships on West Virginia communities attempting to resolve sludge handling problems consistent with the 503 Regulations and may eventually cause all sludge to be dumped into landfills.

The federal regulations recognize that there are better and more productive solutions than landfilling sewage sludge. Sewage sludge can be processed in a number of ways under 503 to end up with a very safe product for beneficial reuse. Once a processed product meets very rigid federal standards, it becomes safe for reuse in almost any environment for land application. The federal regulations establishes two levels of sewage quality, Class A and Class B. Under 503, fewer restrictions are imposed on the use of higher quality sludge, Class A sludge.

In regard to land application, federal regulations state "A number of general requirements and management practices apply to sewage sludge that are land applied with the exception of exceptional quality sewage sludge." The 503 Regulations further state, "Under the distributed and marketed products that sewage sludge or material derived from sewage sludge that is considered suitable for distribution and marketing for uses on lawns and

home gardens, either in bulk or container form, must meet the Class A pathogen reduction requirements." Vector attraction reduction processing option in a pollutant concentration limits.

The Class A pathogen reduction requirements must be met at the time the bulk or the containerized products are sold or given away. If sewage sludge is of exceptional quality, meeting pollutant concentration limits, Class A pathogen reduction requirements and vector attraction reduction processing option, they are usually exempt from the general requirements and management practices applicable to land application practices.

The proposed West Virginia regulations do not seem to distinguish between Class A, clean or exceptional quality sludge, and Class B categories as do the 503 Regulations. Nor do the West Virginia regulations provide incentives for West Virginia POTW's to produce a Class A product.

The fees associated with the regulation process again become a factor in the processing of sewage sludge to the Class A or exceptional quality level. It should provide incentives for POTW's to produce a Class A product which is both beneficial to the producer and to the state. Anything less than a Class A or a regulated Class B sewage sludge can be detrimental to the future of West Virginia environmentally.

The City of Wheeling hopes the Department of Environmental Protection will seriously consider the comments made at the public hearing and submitted in writing regarding the proposed regulations and make good constructive changes that will allow the City of Wheeling and other West Virginia POTW's to economically handle sewage sludge disposal problems consistent with the environmentally sound solutions provided by 40 CFR Part 503.

I have attached to this letter a list of specific concerns with the various sections of the promulgated regulations and would ask that these comments also be considered as part of the public record regarding Title 47 Series 38D Regulations.

Thank you for the opportunity to speak and submit the comments regarding this very important issue for West Virginia.

John Martin:

I'm John Martin and I've been involved in land application and composting of sludge in the state for about nine years and I find the following problems with the proposed regulations. They're not specific. They're overall.

The first part is there's no use of identified sound scientific data for classifying the A, B or C facilities. In other words, there's no status of sludge management in the state mentioned, no total amount of dry or wet ton. No mention of the methods of disposal by percent by landfill, incineration, land applied, lime stabilized or composted. There's not even a mention of how much suitable land is available in the state for this. This is a source, not a resource. You can use it up. And it's best that we use it up for the people of West Virginia.

Second, 4.2.3D "Agreement". This is where we're asking the haulers, the generators and appliers, and the landowners to have an agreement. In many states this has been the same person and they pocket a very substantial sum of money. This vertical integration allows for abuses in the system such as underreporting and substitution of materials.

Number three. This is very important. There's no elimination of sludge from landfills. We have a 20% reduction by next year. Thirty percent reduction by the year 2000. Fifty

percent reduction by the year 2010. Yard waste is banned. Sludge is more nocuous. In a sealed environment of a landfill anaerobic conditions will drive the ph down and this creates a hazardous leachate. It also generates abundant methane. We should be considering getting all organics out of the landfill.

The present program that's been working in the state with land application has been leaning West Virginia sludge from landfills. I don't think we should backtrack.

Number four. Over alliance on 40 CFR 503.12. There's no explanations. There's no interpretations. There's places that decisions are to be made whether you will go with them, exceed them and it hasn't been listed and I have nothing to comment on.

Number five. Centralization of authority within in the DEP. The regulations, to my eyes, show no local involvement or recourse. Authority, responsibility and the bearer of the consequences are all separate.

Number six. There's no evidence of integration with other composting regulations or guidelines such as the upcoming yard waste. We have a ban and we have no recourse of dealing with it. To that effect, two years ago I wrote up a West Virginia sludge application program. It's goal is returning useful products to the soil and place authority and resources where the responsibility lies which is local.

I propose that the land application of sludge be withheld for a couple of years so the people could have meetings, make definitions and get an understanding of what is happening. There should be a referendum after that to consider whether you want to do it on your land.

There should be a local administrative body that will benefit from this similar to the local solid waste authorities. There should be a local watchdog group created of people who oppose this, who understand the process and know what to monitor and how to monitor and how to appoint a monitor. And they should have recourse for closing down the operation if it falls outside of parameters.

The determination of areas suitable for land application could be done by the authorities who have already done it for landfills, the Soil Conservation Service and the Extension Service, and this should be provided at a fee that is established. Determination of excessively low loading rate limits could be done by the land grant university also at a fee.

There should be agreements with the landholders. There should be preliminary acceptance that their land is suitable, application rates have been determined and then a firm contract could be drawn up. A request for qualifications from haulers and appliers and a background check. A sludge application plant could be put forward and then approved by the DEP.

There could be local brokerage and services for the contract and there would be a request bid for the haulers and the appliers. They can be separate. Independent assessment should be done. They should purchase a bond. There should be liability insurance and, if need be, a referendum could be held to proceed.

Finances. The local administrative agency should determine the cost. The host county should get a fee. They should recoup their administrative cost. Deciding on loading/spreading fees. The watchdog group fee which hires the people to monitor it. The sludge testing for goodness of application.

The landholders insist it's a product that should improve their land. Should not get anything more than a token amount of money for it. You don't give away fertilizer. If this stuff is worth what it's supposed to be worth, it will improve the land. The hauler should have a contract and they should be specified as to how much they will haul and nothing more than that and from which they haul.

Appliers fee, again, under contract. A bond and an insurance liability. This is not regulations. This is an entire program and regulations are a part that should be that. I put this forward because I think we need a vision of where we want to go and how we want to arrive there. I do believe that land application of our sludges has been a very good success. Unfortunately, it's been underfinanced.

I would give it a fairly good grade for the way it was implemented. Unfortunately, I also know that they struggled for years trying to get just simple pieces of equipment like manure spreaders to land apply. I also know that many cities have taken advantage of this and have not seen the full cost of their sludge getting rid of it. We need to have true cost accounting in this so that all options and other applications can be explored further. Thank you very much.

Burgess Cary:

Thank you. My name is Burgess Cary. I'm the Vice President of Cary Technologies, an environmental services firm and licensed in Kentucky. We're the regional representative for the envirol-soil technology, otherwise known as the advanced alkaline stabilization with subsequent accelerated drying.

This technology was developed in 1988 and has since that time won more environmental awards than all other PFRP sewage sludge treatment processes combined. We have several concerns. First we're concerned about the fact that West Virginia with these regulations has in effect removed the incentive to treat sewage sludge, or a more properly term, bio-solids, to a higher level of safety and usability. There is no difference in the permitting process between PSRP and PFRP level treatment bio-solids.

Number two. Due to unnecessarily strict regulations, fees and documentation requirements which cover clean sludge products as well as untreated sludge, reuse of these quality recycled products will not be economically feasible.

Number three. We would like the State of West Virginia to make recognition of and to ease the restrictions on EQS, exceptional quality sludge, or Class A level treated products. There are many suitable processes. We would like West Virginia

to recognize the alternative PFRP technologies other than composting.

Number four. We'd like West Virginia to recognize that lime pasteurization or the AASSAD process is a whole separate process and a higher level of treatment than lime stabilization or lime sterilization as does the Federal 503 Regulation by name. These have been submitted in writing but I'd like to read letters regarding the recent regulations. The first is from Dr. Terry Logan, Chairman of the Agronomy Department of Ohio State University, Columbus, Ohio. "Thank you for sending me a copy of the proposed sludge regulations for West Virginia. I'm sorry that I've had so little advanced warning that they were coming or I would have been able to offer a more complete analysis. As you know, I cochaired the EPA Peer Review Committee that evaluated the original draft of the 503 rule and I was a consultant to the EPA in developing the revised rule. I'm also working with the Ohio EPA in revising our state regulations to conform to 503. It is clear from reading the West Virginia regulations that they are designed and rightly so to protect human health and the environment from PSRP sludges that can't meet the more stringent 503 criteria for exceptional quality sludge. My concern is that they will unnecessarily penalize any West Virginia treatment plant that wishes to produce an EQS product by lumping all sludge treatment technologies and sludge derived products together. In fact, as the rule is presently written there is no incentive whatsoever for West Virginia treatment plants ever to upgrade

their technologies to produce a better product that can be recycled beneficially rather than disposed of. The whole intent of the EQS component of the 503 rule was to provide incentives to treatment plants to reduce metal levels in the sludge, achieve complete pathogen destruction and stabilize the product by reducing the regulatory burden on these materials. By setting high quality standards that are quantifiable through testing human health and the environment is protected and the product is available for beneficial reuse by farmers, horticulturists and for mine reclamation. The combination of restrictions in the West Virginia regulations in the high user fees means that the advanced technologies available today to treat sludge will not be used in West Virginia nor will high quality organic products be available for agriculture and reclamation. My recommendation is that EQS sludge derived products be treated separately in the regulations and that they be exempt from sight specific limitations except as required in the state for fertilizer, lime or manure. For example, I have no problem with the reclamation one time use limit of 50 to 200 tons per acre of envirosoil or an EQS compost for abandoned mine spoil together with adherence to other reclamation requirements such as slope grading, seeding, etc. I also believe that EQS materials should have to be tested more frequently than a Class B sludge because we're placing a regulatory control on the quality of the product, not on the use of the product. Because EQS materials do not need to be tracked in the field, they should be subjected to lower user fees." I'd like to read another letter from -- (time up)

Clarence Cox:

I represent the Sanitary Board, City of Parkersburg. We have previously submitted written comments regarding some specifics of the proposed regulations. My intent here is to just present some general observations.

First of all, it is particularly unfortunate that the will of those involved in the Wetzel County landfill debate regarding out-of-state waste has been imposed unnecessarily upon municipal waste water treatment facilities throughout the state. The proposed regulations are more stringent in several areas than 503 Federal Regulations.

The 503 Regulations were developed over a period of years with the input of many informed people throughout the country. The 503 Regs is a set of requirements with which we can reasonably comply. The proposed regulations are too stringent, too inconsistent to be reasonably and fairly applied as proposed.

The state should adopt the 503 Federal Regulations and adjust in the future based upon real experience, not supposition and political pressure. We are not opposed to a fee which is fairly and consistently applied and is used for worthwhile and legitimate needs. The fee structure as proposed is inadequate in these areas.

In particular, fees should be based upon dry ton solids produced. If there is to be a differential for pretreatment versus non-pretreatment facilities, then non-pretreatment fees should be higher, not the reverse as proposed. There should be clear and consistently applied penalties for non-payment of fees. We see none in the proposed regulations.

There should be annual audit of the money generated and the purposes for which it is spent and the audit must be made public. Too often government collects money of unknown total amount for one purpose and then spends it for another purpose. If regulations are going to be adopted, they must be enforced fairly and consistently.

We have a history in this state of too often riding hard those who are attempting to comply and overlooking those who could care less. In order to make real progress this practice must stop. The regulations as proposed are oriented toward POTW's, not necessarily non-public waste water treatment facilities such as industry and small package plans. These non-public facilities must be clearly included in the sense of fairness and consistency.

Many of us have operated high quality beneficial sludge and land application programs for years and these proposed regulations will do much more to harm those programs than to promote and improve these beneficial programs. Thank you.

James Wisoloski:

James Wisoloski. I'm here tonight on behalf of the West Virginia Rural Water Association and I am one of the Executive Directors of the Board of the Rural Water Association. Rural Water has seven points they would like to express this evening.

First of all, we do want to let you know if you're not familiar with our Association that we do represent over 200 small POTW's in the State of West Virginia, serving populations of less than 10,000. And the Board of Directors of Rural Water concur with the need and necessity of a sewage sludge management program that protects the health and welfare of the residents of the State of West Virginia.

However, the program must also be sensitive to the economic impact on sludge processing facilities in that we see over-regulation and realigned design standards in the proposed emergency rules. In paragraph 3.3, titled "Sewage Sludge Processing Facility Operation and Design Requirements", it's been discussed several times about the clay liners and the concrete. We won't go into that.

What our concern is in that particular paragraph there is no provision for alternative plans for existing facilities. The conversion of, for example, an existing grind bed will provide an adequate capture of leachate as intended by the legislation.

However, the proposed rules appear to be insensitive to any alternate options. It is the belief of the West Virginia Rural Water Association that promulgated rules that require extensive new construction should also provide the funding to implement that rule.

In paragraph 6.2, titled "Water Quality Management Fund", we'd like to see it disclose a projected revenue that you anticipate from this rule. We'd also like to see a disclosure of the anticipated targeting of the distribution of those funds and how they are to be allocated. In so doing, we'd urge the director and the allocation of the funds to consider setting aside funds for the purpose of establishing an environmental trading program that will benefit the waste water treatment industry in West Virginia.

Paragraph 6.3, under "Fee Assessments", it has been discussed several times and we have a little twist of what's been talked about on the environmental remediation fee of one dollar per wet ton from pretreatment facilities and fifty cents per wet ton from non-pretreatment facilities. It also proposes a management program fee of $2.50 for that which is land applied.

The West Virginia Rural Water Association believes that a remediation fee is unfair to sludge processors in that the proposed rules are preventative by nature and their intent, and would probably preclude remediation if the monies for the

management program fee were implemented properly. In other words, what we're saying is you're taking fees to implement a program that is preventive by nature and design and intent of the legislation, yet you're asking us to contribute remediation fees with the assumption that remediation will be necessary. It tells us perhaps management is intended not to be done properly and remediation will be necessary. We ask that the remediation fees be stricken entirely.

Secondly, the proposed formula for assessing fees based on wet tons is an unfair procedure, as been testified to this evening, to facilities that have technology base facilities that decrease the actual wet tons for disposal. It appears that the rules propose double-dipping into operating revenues of these facilities and the West Virginia Rural Water Association proposes a formula to represent a fair share fee for a percent of dry solids generated.

Under Appendix A, "The Frequency of Monitoring", we don't believe it's sensitive to the reparative cost of the testing that's going to be required for the monitoring. We feel that every POTW has sludge qualities that are reflective of their service areas. Many of the POTW's have a consistent sludge quality that is not vulnerable to significant change.

The Rural Water Association believes that the monitoring periods proposed be modified to allow waivers based on historical

values reported and also based on the vulnerability of those sludges of each POTW. This would result in significant savings to the rate payers in West Virginia. And after all, we are talking about not taxing the POTW's or implementing fees on the POTW's. We're talking, and the Rural Water Association, of proposing more and higher rates on over several hundred thousand rate payers in West Virginia or residents.

Item number six. The rules do not address a public water supply generated sludgers. The Rural Water Association strongly believes that any residual effect of this rule on the West Virginia public water supply facilities should be disclosed in these rules.

And the last point, the West Virginia Rural Water Association believes that the need to demand a ph of 6.2 for a period of five years is not substantiated by any peer review group study resulting adverse effects of land application of sludge. In order to implement this requirement, the Rural Water Association requests disclosure of the source of the studies that suggest that such a requirement is needed. Thanks for your time.

Guy Sharedo:

I'm sorry for that delay. I thought I was further down the list. Just two schools of thought and, I'm an expert on this one problem, that is when you've irritated everybody and made everybody angry. You've done one of two things. You've either done something right or you've totally screwed up. I don't know what the answer is on the regs this time but there are some problems and I think you've heard a consist theme at least from many of the people in this room to go back to the drawing boards.

I think you've heard some excellent comments and, I guess, I look at things from a historical angle, how this thing all started. A large proposal from Long Island. No regulations in place. All of us scurrying around. All of us scurrying around trying to figure out what to do. In the meantime, no taxes were collected. The neighbors did not have the input and the county solid waste authorities we worked so hard to put into place the last four years had no input in that decision.

I urge you, the DEP, to go back to the drawing boards. Not in the spirit of hostility, but to take these comments that you've heard from all the different angles and look at it. Take your time. If there's a way that these people, including myself, can help you buy that time legally, we would like to help. I think you know what the legislative intent was.

I think you know what West Virginia wants. The farmers want access to sewage sludge in reasonable quantities and safe quantities. The POTW's wanted to be treated fairly. They understand the problem. They want to be treated fairly.

Environmental community is concerned about long range effects on the environment and particularly soil levels and quality of life for the people living near those facilities. We worked hard to get public approval. We worked hard over the last four years to develop the same policy for solid waste management in this state and I think you know that. And in the rush of the problem that occurred in December, or as we notified in December, and in the legislative session and then the rush for you guys to get out these regulations, some inconsistencies have occurred.

Some thoughts have come up today and I think I noticed you-all writing down. I felt a little bit more informed tonight on some of the problems of POTW's. When you worked that legislation we did not want to affect adversely the POTW's. We're in this together, guys. We did not want to affect the farmers. We're in this together. But there was a couple of proposals that went against the political will and the public will of this state and they came from far away. I can't say the word "out-of-state", can I?

One thing I wanted to talk about real quick was this idea of dry weight versus wet weight. I understand Mayor Larose from

Summersville talking about the inconsistencies and, gee, I don't want to pay on a wet weight and apply dry. But think about the person that started all this. The company that has 108,000 tons that is being paid for wet tons and, now, if we adopt this it is going to put taxes on dry. I believe that's roughly an 80% difference. I don't know what we can do legally on this. The problem was never the small POTW's. The problem has always been the threat of non-regulation in the state.

And I urge you, strongly urge you, along with a lot of my friends and colleagues here, to go back to the drawing boards not in the spirit of animosity, but let's roll up our sleeves. Let's buy some time and let's do this so that the farmers feel safe, the POTW operators feel they are fairly treated and the environmental effects are minimized for a long time to come. Thank you.

**** Conclusion ****

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4-26-93

Draft Comfost Reg

John Tuckwiller

5,6.2.b.E(b) - overkill, not necessary
6.2.b.E(h) - this may be a burden but necessary ?
6.2.b.J - this one important
6.2.b.J(b) - EPA certified lab.
6.2.b.J(b)(c) " " "
6.2.b.J(b)(e) ~~no more~~ shall be no less ?
6.3.g.A - d - b - requirement an overkill
6.3.j - d quotes on flood plain.
6.3.l - at least this min. distance
3.g B(d) all comfost must contain a label etc.
6.A - not necessary
6,4,i - not on flood plain.
6.5.j - Over kill

regs must not be so expensive to comply with that composting cannot be ~~economically competitive with~~ a method to dispose of yard waste, sewage sludge etc.

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To Mav Robinson	From Phil Tuckwiller
Co. DEP	Co. &
Dept.	Phone #
Fax # 1-553-0256	Fax # 647-5956

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Charles F. Jordan
ACTING DIRECTOR

March 16, 1993

Mr. Max Robertson
Chief, Office of Waste Management
Division of Environmental Protection
1356 Hansford Street
Charleston, WV 25301-1401

RE: Comments on 2/3/93 Draft Composting Regulations

Dear Max:

The following details my comments on the composting regulations, dated February 3, 1993, prepared by your office. Please understand that I cannot speak for the entire Board since I have not yet consulted with them about these regulations. However, I am the staff member responsible for working with your office to promulgate the **yard waste** composting regulations. As such, the majority of my comments relate to the yard waste portion of the regulations.

NO.	COMMENT
1.	Yard waste needs to be defined. A suggested definition is: Yard Waste is debris such as grass clippings, brush, leaves, garden waste, and trees or tree trimmings. Yard Waste does not include tree stumps.
2.	I disagree with the requirements of a 2 foot thick clay liner, leachate detection zone, and 4" concrete slab for yard waste composting facilities. I feel these requirements are not necessary. If they become a part of the final regulations, many people will refuse to build small scale yard waste facilities due to the high capital costs to construct the facility. I think proper drainage, a stable working surface, and a small leachate collection basin at the down gradient end of each windrow should be sufficient for **yard waste only** composting facilities.

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NO. **COMMENT**

3. I feel the regulations should classify facilities by size, as well as feedstock, with varying requirements for different classes. My suggestions are:

   Class 4 - Less than 50 CY. This would be "backyard" facilities. No regulations at all. Complaints handled by local Health Department.

   Class 3 - 50 CY and larger, accepting only yard waste. Required to meet siting standards (primarily in authorized zone of local Authority's Siting Plan, buffers, minimum and maximum slope requirements, and others). The DEP and local Solid Waste Authority would have to approve site. Once approved, facilities would be "Permit by Rule".

   Class 2 - 50 CY to 5,000 CY, accepting any organic waste except sludge, septage, or post consumer food waste. More stringent requirements, but not as stringent as Class 4. These requirements would be nearly identical to those in 5.6.2. and 5.6.3. (all sections except those relating to sludge and septage)

   Class 1 - Over 5,000 CY and accepting waste other than yard waste, or any size accepting sludge, septage, or post consumer food waste. Most stringent requirements, also similar to proposed regulations (specifically portions relating to sludge and septage composting).

   These classifications would promote yard waste and "backyard" composting, while providing stringent regulations for facilities composting mixed waste and sludge.

4. References to yard waste in sections 5.6.2. and 5.6.3. are confusing and could be construed to mean that yard waste is included under the more stringent portion of the regulations. If the regulations are changed to reflect 3, above, this comment will be obsolete.

5. I'm not clear on how animal manure and food wastes are being regulated. The wording in 6.6.2.(a). is a little confusing and may need to be corrected.

6. The word "department" needs to be changed to "division" throughout.

NO.	COMMENT

7. Septage should be defined.

8. Perhaps provisions should be made for labels for yard waste that is bagged and marketed, such as in 5.6.3.q.B.(a).

9. There should be a specific waiver for "backyard" composting.

10. Permeability requirements in 5.6.3.g.A.(a). and 5.6.3.g.B.(a) should read "permeability of no less than 10^{-3} cm/s.

11. What is meany by "acceptable methods of composting" in section 5.6.3.k.? Accepted by whom?

12. Last paragraph on page 9 needs to be reworded so that it can be more understood.

13. Is there a need for 2 maximum particle sizes in 5.6.3.q.A. that are so close to each other (10 mm and 13 mm)?

Sincerely,

Kevin L. Harshberger
Project Engineer

cc: File

FROM: DAVID C. BROWN, P. E.

DATE: MARCH 16, 1993

RE: PRELIMINARY DRAFT REVISIONS

The following revisions should be considered and if you are in agreement made to the current draft proposed regulations prior to submital to the legislation. The reasons for suggesting these revisions are based on the experience our facility has gained in composting over the last several years. I would like to discuss these revisions with you either in person or by phone.

5.6.2.(a) Permit application requirements. This section describes the permit application requirement for the processing (by composting methods) of sewage sludge, septage, source separated organic waste, other than yard waste, animal manure, or food processing waste. The permit application requirements of this section 5.6.2 shall apply to all composting facilities that commence operations after the effective date of these regulations. Existing composting facilities are to comply with the operational requirements of section 5.6.3. Section 5.6.2 contains the requirements, in addition to those set forth in section 3..7, pertaining to the contents of an engineering report to be submitted as part of an application to construct and operate. At a minimum, the engineering report must contain:

5.6.2.b.F(i) The expected mass balance through the composting system (What is needed?)

5.6.2.b.F(1) A description of the method to collect and control surface water runoff and leachate, including the method for treatment or disposal of leachate generated. For uncovered sites, calculations of surface water runoff that must be handled at the site, based on a rainfall intensity of 24-hour duration and a 10-year return period;

5.6.2.b.G Every applicant must file a disclosure statement in accordance to Section 3.14. Applicant is exempt if a current disclosure statement is on file with the Department.

5.6.2.b.J.(b) A description of the quality of the sewage sludge including analyses for total Kjaldahl nitrogen, ammonia nitrogen, nitrate, nitrite, total phosphorus, total potassium, pH, total solids, total volatile solids, cadmium, copper, total chromium, mercury, nickel, lead, arsenic, molybdenum, selenium, and zinc. The minimum number of analyses that must be submitted with the application is dependent upon the sludge cake production per quarter:

Sludge Cake Production Tons per Quarter	Frequency of analysis	No. Submitted
< 1000	Annually	1
1000 to 2000	Semiannually	2
> 2000	Quarterly	4

5.6.3.a.A Using the windrow composting method, the waste is maintained under aerobic conditions during the compost process. A minimum of five turnings is required during a period of 15 consecutive days when the temperature of the mixture is not less than 55o C within eighteen (18) inches below the surface of the pile.

5.6.3.b The (composting) facility must have sufficient (temperature) monitoring to ensure that the pathogen reduction criteria are met. Monitoring procedures and methods to assure the pathogen reduction criteria are met shall be contained in the operation and design manual.

5.6.3.g.A. Composting of yard waste, the waste storage area, active composting, curing and compost storage areas must be located on a clay liner in accordance to Sections 4.5.4.e. through 4.5.4.e.A.(i) or an equivalent liner in accordance to Section 4.5.4.a.G.

5.6.3.g.A.(a) The performance of the liner system will be monitored by a leachate detection zone between the sub-base and liner system or by groundwater monitoring wells as set forth in 4.11.1.

5.6.3.g.A.(b) Final surface shall be constructed with a wear surface of concrete, asphalt, crushed rock, gravel brick, or a combination of natural and synthetic materials to provide a subtle all weather work surface and leachate collection.

5.6.3.g.B. Composting of sewage sludge; septage and other material approved by the Department, the quantity waste storage area, active composting, curing and compost storage areas must be located on a clay liner in accordance to 4.5.4.e to 4.5.4.e.A.(i) or equivalent system in accordance to Section 4.5.4.a.G.

5.6.3.g.B.(a) The performance of the liner system will be monitored by a leachate detection zone between the sub-base and liner system or by groundwater monitoring wells as set forth in 4.11.1.

5.6.3.g.B.(b) Final surface shall be constructed with a wear surface of concrete, asphalt, crts

and other industrial pretreatment requirements, the department, on a case-specific basis, may determine the maximum allowable concentrations of the contaminants in the sewage sludge.

Sewage sludge or septage containing heavy metals or other pollutants at concentrations greater than those set forth in this paragraph may not be used in the compost operation.

5.6.3.q Class I compost or product:

(a) must not contain contaminant levels greater than the following:

Parameter	Concentration, ppm dry weight
Mercury	17
Cadmium	39
Nickel	420
Lead	300
Total Chromium	1200
Copper	1500
Zinc	2800
Arsenic	41
Selenium	36
Molybdenum	18

(b) for a sewage sludge or septage distribution and marketing product, the particle size must not exceed 12 millimeters (0.51 inch), all other types of distributing and marketing products must not exceed 10 millimeters (0.39 inch) particle size;

(c) the compost must be produced from a composting process with a minimum detention time (including active composting and curing) of 50 days:

(d) must not be used on crops grown for direct human consumption unless the rts
and other industrial pretreatment requirements, the department, on a case-specific basis, may determine the maximum allowable concentrations of the contaminants in the sewage sludge.

Sewage sludge or septage containing heavy metals or other pollutants at concentrations greater than those set forth in this paragraph may not be used in the compost operation.

5.6.3.q Class I compost or product:

(a) must not contain contaminant levels greater than

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Parameter	Concentration, ppm dry weight
Mercury	17
Cadmium	39
Nickel	420
Lead	300
Total Chromium	1200
Copper	1500
Zinc	2800
Arsenic	41
Selenium	36
Molybdenum	18

(b) for a sewage sludge or septage distribution and marketing product, the particle size must not exceed 12 millimeters (0.51 inch), all other types of distributing and marketing products must not exceed 10 millimeters (0.39 inch) particle size;

(c) the compost must be produced from a composting process with a minimum detention time (including active composting and curing) of 50 days:

(d) must not be used on crops grown for direct human consumption unless the compost process meets the pathogens reduction criteria of 5.6.3.(a).; and

(e) can be distributed for use by the public, used on food chain crops and other agricultural and horticultural uses.

5.6.3.q.B. Class II compost or product:

(a) must not contain contaminant levels greater than the following:

Parameter	Concentration, ppm dry-weight
Mercury	57
Cadmium	85
Nickel	420
Lead	840
Total Chromium	3000
Copper	4300
Zinc	7500
Arsenic	75
Selenium	100
Molybdenum	73

(b) must not exceed 25 millimeters (0.98 inch) particle size.

(c) compost with particle size greater than (10) 13 millimeters (0.39) 0.51 inch) will be restricted to landfill cover or other uses approved by the department on a case specific basis.

(d) compost must be produced from a composting process with minimum detention time (including active composting and during) of 50 days;

(e) must be limited to bulk distribution and is restricted to use on nonfood chain crops in locations with limited public access.

5.6.3.r. (The results of laboratory analyses must be reported to the department on a quarterly basis for those facilities that product at least one dry ton of compost per day and on a semiannual basis for those facilities that product less than one dry ton of compost per day. Reporting of the analyses must include copies of the laboratory reports. The laboratory used must be acceptable by the department.) The frequency of annual (compost) product or septage is outlined (as follows:) below. Requirements for products derived solely from source separated organic waste will be determined by the department on a case specific basis.

Parameter	Average compost produced (dry tons per day)	Frequency of analyses	Number of grab samples samples for composite
Heavy Metals (cadmium, total chromium, copper mercury, nickel lead, zinc, arsenic selenium and molybdenum)	less than 1	semiannual	6 (composited monthly)
	over 1	monthly	4 (composited weekly)
Total solids, total volatile solids, total Kjeldahl nitrogen, ammonia nitrogen, nitrate, nitrite, total phosphorous, total potassium, pH, total polychlorinated biphenyls			

An alternate method of sampling may be used on windrows of finished compost. Each 1000 cubic yards of finished compost would be composit sampled and analyzed for the above parameters.

With the exception of pH, total solids, and total

volatile solids, all results must be reported on a dry weight basis; for facilities producing over 10 dry tons per day, the results of laboratory analyses must be reported to the department on a quarterly basis. Reporting of the analytical results must include copies of the original laboratory results; and all analyses must be performed by a laboratory acceptable by the department.

5.6.3.u For (composting systems) distributing and marketing facilities involving (only) sewage sludge or septage (no municipal solid waste), the input sewage sludge or septage must be sampled and analyzed.

Sewage Sludge

Parameters: TKN, NH3, NO3, total (phosphorous) phosphorous, total potassium, pH, total solids, total volatile solids, cadmium, copper, total chromium, mercury, nickel, lead, zinc, arsenic, molybdenum, and selenium (and total PCB's).

Sludge Cake Production Tons/Quarter	Frequency of analysis
< 1000	Annually
1000 to 2000	Semiannually
> 2000	Quarterly

Sampling and analysis must be in accordance with the appreciable regulations for the NPDES permit at the plant.

5.6.3.W Delete - All material is analyzed during the process, why would additional analyses be necessary?

Comments Package : Initial Draft - Sewage Sludge Regulations

BROOKE COUNTY SOLID WASTE AUTHORITY

P.O. BOX 50
WELLSBURG, WV 26070

PHONE NO.(304)-737-0780 FAX NO.(304)-737-0781

COVER

FAX TRANSMISSION

TO: George Max Robertson

FAX NO. 558-0256

ATTN: Nadine

FROM: Silvio Paesani, Chairman, Brooke Co. Solid Waste Authority

DATE: May 12, 93

COMMENTS: Max - would Appreciate if everybody on SWICC Board could get a Copy of this including Clifton Browning, D.W.R.

NUMBER OF PAGES (INCLUDING COVER): 2

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NOTE: IF YOU DO NOT RECEIVE THE TOTAL NUMBER AND TYPE OF PAGES INDICATED, PLEASE CALL. OTHERWISE, IT WILL BE ASSUMED THAT YOU DID RECEIVE THE PAGES INDICATED.

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BROOKE COUNTY SOLID WASTE AUTHORITY

P.O. BOX 50
WELLSBURG, WV 26070

PHONE NO.(304)-737-0780 FAX NO.(304)-737-0781

PROPOSED WEST VIRGINIA REGULATIONS ARE NOT ACCEPTABLE IN THE FOLLOWING CATEGORIES:

1. Sensitivity to local residents with regard to all manner of nuisance-- especially odor.
2. Sensitivity to the approval process by the local solid waste authority and control by the local solid waste authority.
3. Sensitivity to the testing methodology, such that a type I error is avoided. (i.e. the standards are not violated)
4. Sensitivity to avoiding implementation before adequate diagnostics, idea generation, and planning are completed.
5. Sensitivity to public output.
6. Sensitivity to communicate plan to public.
7. Sensitivity to economic benefits to the host community.
8. Sensitivity to an exhaustive comparison to other states and to comment from national organizations.

Silvio Paesani

Silvio Paesani, Chairman
Brooke County Solid
Waste Authority

Please offer copies of comments to:
David Callaghan, Director D.E.P.
Ken Andreason, and
Richard Cooke

MARION COUNTY SOLID WASTE AUTHORITY

P O. Box 589
Phone: 367-5400 Fairmont, West Virginia 26554 Fax: 367-5374

TELECOPIER INFORMATION SHEET

The following pages are for:

INDIVIDUAL: Max Robertson, Chief

FIRM: Solid Waste Management Section , DEP

CITY AND STATE: 1356 Hansford Street , Charleston, WV 25301

TELEPHONE: # FAX 558-0256

FROM: Allan W. Babcock, Secretary, Marion County Solid Waste Authority

Total Number of Pages 2 (including information sheet)

DATE TRANSMITTED: April 29, 1993

OPERATOR: _____

If you do not receive all the pages, please call back as soon as possible. Thank you.

Max...

Jane Mild, a member of the MCSWA, suggests that the testing should incorporate testing for PCB's and organics.

AL Babcock

Thanks for the opportunity to make comments.

Sanitary Sewer Board
City of Fairmont
P.O. Box 1428
Fairmont, WV 26555-1428

Phone (304) 366-0540
Fax (304) 366-6242

M E M O

TO: Al Babcock, Marion County Solid Waste Authority

FROM: Bruce McDaniel, Sanitary Sewer Board, City of Fairmont

SUBJECT. Senate Bill No. 200

DATE: April 28, 1993

I have reviewed the above referenced bill and wish to offer the follow commonts.

Overall, this bill will allow the Division of Environmental Protection the necessary authority to develop rulos to manago sowago sludgo in the State of West Virginia. It is my opinion that this is both necessary AND responsible. Properly operated and managed Publicly Owned Treatment Works (POTWs) shouldn't have compliance problems with reasonable rules promulgated from this bill.

Two items in the bill are areas of concern for our operation and all POTWs. 20-5F-2D (5) stated that the Director may require a surety bond, deposit or similar instrument sufficient to cover the costs of future environmental remediation. It was our understanding that POTWs would be excluded from this provision. I can find no such exclusion in the bill as passed into law. Also, how is the amount of the bond, etc arrived at? This provision alone could eliminate many successful land application programs.

Also, (12) calls for a fee to be paid by the producer of the sludge on a per ton basis. This fee is to be sufficient to cover the costs of the management program. While I'm not opposed to reasonable program specific fees for necessary regulation, I'm not sure how much more of this our rate structure can absorb. Ultimately, the increased cost of government and regulation is passed on to our customers.

In summary, a sludge management program makes sense. It's just upsetting to think that the only major change to our program will be additional expenditures.

cc: Doug Amos

June 23, 1993
Rt. 1, Box 19
Newmartinsville, WV 26155

Mr. Bill Rheinlander
Office of Waste Management, DEP
1356 Handsford Street
Charleston, WV 25301

Dear Mr. Rheinlander:

Please review my following comments regarding Proposed Title 47, Series 38D, "Sewage Sludge Management regulations".

The DEP is charged with preparing the Sewage Sludge Rules and Regulations in a manner that adheres to the recent legislation intent in SB 288 to delineate how West Virginia shall handle sewage sludge prudently in the future.

I am disappointed to find that not only have procedures for handling sludge been slighted by lack of specificity, weak restrictions and failure to safeguard, but also, the overall intent of the bill seems sabotaged in a way that would condone the ills of the past rather than to say that from now on we shall all do better as was the intent of SB 288.

I often am reminded of the words of my daughter, "Why do it wrong when it is just as easy to do it right." I have some idea of all the work that has gone into this and I must ask the same question.

Briefly, the points that disturb me follow:

Definitions:

2.34 Representative Sample - Caution is needed. It is not practical to expect valid representation with a large heterogenous mix as in Windrow rows or a large pile. Care must be given to how this important step in testing is achieved. It could easily become subject to abuse.

47-38D-3

3.1 Incorporation of Federal Regulations

FULLY? NO! 40 CEF Part 503 is merely a baseline. We must do better to protect our state from others as well as ourselves.

For example: Loading rates - Should be regulated by whatever component commands the given situation by considering the concentrations present in the soil to be treated as well as that being applied. The limiting factor in the agronomic rate should be less than the nitrogen needs when a pollutant threat demands precedence.

To say the following is counterproductive would merely be an understatement.

47-38D-3. STANDARDS FOR USE, DISPOSAL AND PROCESSING OF SEWAGE SLUDGE.

3.2.3. No land, **except** a solid waste facility, shall be allowed to accept **or store** so much sewage sludge as to exceed the agronomic rate of fifteen dry tons per acre per year, whichever is less: Provided, That up to twenty- five dry tons per acre per year may be applied in the reclamation of surface mine land.

Note the **above** obvious change in the intent of SB 288 at 20 5f 2b(e)

See the **proviso: That no land within a solid waste facility, but outside a landfill disposal cell,** be allowed to accept **the permanent application of** so much sewage sludge as to exceed the agronomic rate of fifteen dry tons per acre per year, whichever is less:

The change of intent shown allows abuses on a landfill composting sludge with language that would allow storage to the point of using it as a guise in an actual disposal. This was obviously the very loophole that SB 288 was attempting to stop.

47-38D-3

3.6 Landfill Disposal of Sewage Sludge.

The last sentence must be deleted, it reads:
Alternate sludge disposal methods can be utilized upon obtaining written approval from the chief.

Considering past performance, I would be uneasy giving this much control.

SB 288

20-5F-2b(c) For those publicly owned treatment works (POTW) which produce sewage sludge and are regulated by the division pursuant to an NPDES permit required under article five-a of this chapter, a sewage sludge processing permit **shall be a part of the existing water pollution control permit** and shall include a sewage sludge management plan approved by the chief.

What reason, I wonder, would the Proposed Rules and Regs have to change this as in 47-38D-4 PERMITS REQUIRED

4.1.2 For those publicly owned treatment works (POTW) which produce sewage sludge and are regulated by the Division pursuant to an WV/NPDES permit required under Chapter 20, Article 5A, a sewage sludge processing facility modification **will be obtained by the applicant as a part of the existing WV/NPDES permit** and shall include a sewage sludge management plan.

It seems that the Proposed Rules and Regs are again changing the intent and are causing unnecessary difficulty on the POTW while in the next breath it implies that **others** as in 4.1.3 are granted the wording that a sewage sludge processing facility modification **will be obtained as a part of the existing solid waste permit** and shall include a sewage sludge management plan.

SB 288 intent is to help not hinder POTWs.

47-38D-4.2.2. Sewage Sludge Processing Facility Permit requirements.

4.2.2.c.E A description of the ultimate use for the finished compost or other product, method for removal from the site, and a plan for use of disposal of those finished products that cannot be used in the expected manner due to poor quality or change in market conditions;

The above should also include a time limit after which the finished products are either moved from the facility or must be disposed of in the disposal cell.

Note that:
Grades of compost need to be addressed - example:

A - Compost with no sludge
B - Sewage Sludge only Compost
C - Composts with low contaminants
D - Composts with mod contaminant
E - Compost high contaminate for disposal only

Then limit the use of Grades appropriately

20-5F-2b(5) That the director may require a surety bond, deposit or similar instrument in an amount sufficient to cover the costs of future environmental repetition from producers and importers of sewage sludge;

The above use of the word " may" gives the director his digression as to whether he feels a threat as due to amount or type of discharges polluting a sludge. A small consistent POTW could be relatively safe.

Perhaps all POTWs are producers, but it does not follow that all producers are processors. I often get the feeling that the Proposed Rules and Regs infer that they are. That would not be accurate.

47-38D-2. DEFINITIONS
2.7 "Class A facility"

At the end of the above definition it should be added as follows:

At a Solid Waste Facility whereby a Sewage Sludge Processing Facility exists within or adjouning a landfill with common owners, the combined total of the solid waste accepted shall not exceed the total tonnage permitted for the Class of that Landfill involved.

47-38D-2 DEFINITIONS
2.8; 2.9; 2.10 all these Sewage Sludge Processing Facilities need to be reworked.

We share a common purpose of protecting the environment of West Virginia - to protect it for others and for the future. We can achieve this best by working together. We can make these Rules and Regulations acceptable so they will be a giant step towards making our state healthy and safe.

Sincerely,

Shirley Mullett

Shirley Mullett

DEPARTMENT OF COMMERCE, LABOR & ENVIRONMENTAL RESOURCES
DIVISION OF ENVIRONMENTAL PROTECTION
10 McJunkin Road
Nitro, WV 25143-2506

Gaston Caperton
Governor

John M. Ranson
Cabinet Secretary

David C. Callaghan
Director

Ann A. Spaner
Deputy Director

June 29, 1993

MEMORANDUM

TO: Max Robertson
Eli McCoy
Ken Ellison
Dick Cooke
Bill Brannon

SUBJECT: **EMERGENCY PROMULGATION OF SLUDGE MANAGEMENT REGULATIONS**

I recognize the tremendous strain the promulgation of these emergency regulations on sludge management has already put on the Solid Waste Section of the OWM and on the Office of Water Resources. The good news is that the task is near completion. However, some significant work remains to be done on modifications to the regulation arising out of comments offered both in writing and orally at the public hearing. In order to ensure public involvement and the best possible emergency regulation, I would like to request the following actions be taken prior to emergency filing on the 9th of July.

1. I would like for OWM to fax or mail overnight a revised draft of the sludge regulations to everyone who provided written comments by July 6.

2. I would also like to ask members of the Solid Waste Section and Office of Water Resources staff who've been working on these regulations to make phone calls on July 7 and 8 to those commentors to inquire as to whether or not the changes we have made address some or all of their concerns.

The list of recipients from the public hearing need not be all inclusive, but should include Senators Grubb and Macnaughtan; Delegate Pethtel; Robert Bricker, Division of Plant and Soil Sciences at WVU; Steve Zoeller, Association of County Governments; Jeff Bowles and Dan Halloran, City of Charleston; Jim Kotcin, Sierra Club; Jim Graley, representing POTWs; Steve Hannah, Farm Bureau; Jimmy Curnes, City of Wheeling; the Brooke, Wetzel, Calhoun

and Ritchie County Solid Waste Authorities; and the Citizen Action Group. If there are others that you feel should be added to the list, please feel free to do so. The draft to be sent would be the Series 47, Title 38D. The entire rule should be sent to each person or organization. It seems it would be most efficient to find Fax numbers for those individuals or groups.

The idea of this exercise, time consuming and costly as it may be, is to take advantage of as much useful public feedback as possible before promulgating this rule. As you know, the rule will become effective immediately upon filing and we want to inform the concerned public of the contents.

I know that Director Callaghan agrees with me that we appreciate all of the long hours and hard work that has been invested by DEP personnel, both in following the legislation during the session and the conscientious and high speed drafting of this emergency regulation. Please express our gratitude to the staff.

Ann A. Spaner
Deputy Director

AAS/gb

cc: David Callaghan
Brian Farkas
Bill Rheinlander

DEPARTMENT OF COMMERCE, LABOR & ENVIRONMENTAL RESOURCES
DIVISION OF ENVIRONMENTAL PROTECTION
617 Broad Street
Charleston, WV 25301-1218

Gaston Caperton
Governor
John M. Ranson
Cabinet Secretary

David C. Callaghan
Director
Ann A. Spaner
Deputy Director

MEMORANDUM

FAX TRANSMITTAL

To: GREG SHILLITO		# of pages 1
Co. MUB	From: BRUCE MCDANIEL	
Date 6/8/93	Co. Sanitary Sewer Board	
Fax # 292-1526	Phone # (304) 366-0540	
Comments: FYI	Fax # (304) 366-6242	

TO: Richard Cooke, Assistant Chief
Office of Waste Management

FROM: Mike Johnson, P.E., Assistant Chief
Construction Assistance Programs

DATE: June 2, 1993

SUBJECT: Comments on Sewage Sludge Management Regulations, Title 47, Series 38 D

We offer the following comments and recommended changes to the above-referenced regulations:

2.6 For sewage treatment facilities regulated under §20-5A, "Chief" should mean the chief of the Office of Water Resources.

2.12 Are sewage treatment plants, especially POTW's that treat septage or sludge produced by other POTW's or package treatment plants considered to be a "Commercial Solid Waste Facility"? If so, why?

2.25 Are sewage sludge land application sites considered to be landfills?

2.42 POTW's and other domestic sewage treatment facilities should be regulated under §20-5A and not under §20-5F, because this results in duplicative regulation. Will all new POTW's or privately owned domestic sewage treatment facilities be required to obtain a Solid Waste permit, and the approval of the Public Service Commission Solid Waste Division, in addition to an NPDES permit and a PSC Certificate of Convenience and Necessity for sewer facilities? Will solid waste siting requirements apply to POTW's?

3.2.1.h. Why can't sewage sludge be applied to soils with a pH of less than 6.2, since metal contaminants are already limited in the sludge being applied, and since the organic matter acts as a buffering agent and results in the soil pH being increased without lime addition?

3.3.1.c. This requirement cannot be met. Virtually all POTW's are located in the 100 year flood plain. Requirements should be the same as for the liquid-stream operations, which means the facility must be operational at the 25 year flood and protected from damage at the 100 year flood.

This, however, is in no way "...prevent(ing) the encroachment of flood waters upon the facility." This requirement would mandate floodwalls to be built around almost every existing and future sewage treatment facility, a requirement that will be physically impossible to construct in many places and extremely expensive at every location.

3.3.1.d. What is the precise and explicit definition of "land surface"? Does this definition include sludge drying beds (both conventional sand beds and synthetic media beds) that have here-to-fore been lined with a single layer of either 20 mil synthetic liner or 6 inches or more of reinforced concrete? Does it also include the sludge storage sheds that are located adjacent to sludge drying facilities, and are concrete lined and covered? Does it include concrete-floored composting buildings? Are other sludge handling facilities (belt press buildings, digestors, etc.) required to be similarly lined?

Current design practice is to provide either a concrete or synthetic liner under all sludge processing and storage areas, and to direct all drainage and process water that could possibly be contaminated back to the head of the liquid processing stream. Requiring a 2 foot clay liner in addition to a concrete cap will complicate design and construction and drive costs of buildings and other facilities up considerably, and provide little, if any, additional protection to the public or to the environment.

3.4.1. Refer to 3.3.1.d., above. Within the confines of a POTW, where all contaminated water is sent back to the head of the liquid process stream, no additional monitoring or treatment should be required, and such water should not be considered leachate.

4.1.2. POTW's are not the only facilities that exclusively treat domestic sewage, since package treatment plants serve a large part of our citizenry. All of these domestic or municipal sewage treatment facilities should be regulated through the NPDES permit.

4.2.2. Are those POTW's that occasionally accept and treat septage and/or sewage sludge produced by other POTW's or private, domestic facilities (i.e. package plants) exempt from this provision also? A significant number of POTW's currently provide such disposal services, but many may refuse if a separate solid waste permit is required. Since sludge produced by the septic tanks and package plants must be taken somewhere else for final disposal, a blanket exemption to this provision should be granted to all sewage treatment facilities regulated under the NPDES permitting system. Otherwise, the result will be a complete duplication of the existing NPDES process, with its attendant submittals and review effort. These requirements appear to apply to true solid waste facilities (i.e. commercial composters, landfills, etc.), and not to domestic wastewater treatment facilities.

4.2.3.a. Soil tests currently done by the WVU Extension Office do not include nitrogen testing. Nitrogen testing is accomplished by tissue analysis and other, non-soil, tests. How is nitrogen to be analyzed?

facility. Does this also mean that all facilities must now submit DMR's monthly (I certainly hope so!).

6.1. How are fees to be assessed, and when are they due? What are the penalties for non-payment?

6.2. What specifically are the fees to be used for?

6.3 What is the definition of "wet ton"? How will facilities that do not currently dispose of sludge be billed?

cc: L. Eli McCoy, Chief
Clifton Browning
Jerry Ray
Pravin Sangani

Union Carbide Corporation
39 Old Ridgebury Road
Danbury, CT 06817

Christopher Colman, Esq.
Phone 203-794-6258
Fax 203-794-6238

June 25, 1993

Office of Waste Management
Attn.: Bill Rheinlander
1356 Hansford Street
Charleston, WV 25301

Re: Sewage Sludge Management Regulations

Dear Mr. Rheinlander:

On behalf of Union Carbide Corporation, I herewith submit the following comment on the Sewage Sludge Management Regulations recently proposed by West Virginia:

- Union Carbide operates a surface impoundment under a hazardous waste management permit issued by the State of West Virginia. Under a longstanding nonprofit understanding, Union Carbide receives sludge from a municipal treatment works which receives both industrial and residential effluent. The sludge is disposed of in the permitted hazardous waste unit, which is already required to comply with extensive monitoring and operational requirements to protect human health and the environment, and, thus, the existing regulations and permits already address the concerns which the proposed rules are intended to address. It is our understanding that the proposed regulations are not intended to apply to facilities which are permitted under the hazardous waste rules or to sludges which are derived from mixed industrial and residential effluent. Both points are implicit in the regulations as drafted. In particular, the incorporation by reference of the federal regulations at Part 503, operates to incorporate the exclusions at 503.6, which includes an exclusion from regulation of mixtures of industrial and domestic septage.

  However, Union Carbide believes that it would be helpful to clarify this point in the text of regulations and suggests that the following language be added to the end of Section 1.1 of the proposed regulations:

  This rule does not apply to persons or facilities to whom the regulations in 40 CFR Part 503 do not apply, nor does it apply to processing , storage or disposal of sewage sludge in a facility which is permitted under title 47, series 35 of these regulations.

DRAFT

Definitions

2.49.1 "Annual product application rate" means the maximum amount of the product prepared by a distributor that may be applied to a unit area of land in a 365-consecutive-day period in compliance with the pollutant limits of this Part.

2.49.2 "Curing area" means an area where organic material that has undergone the rapid initial stage of decomposition is further stabilized into a humus-like material.

2.49.3 "Distribution and marketing (D&M) facility" means a facility involved in the processing of organic components in solid waste for ultimate use as a soil conditioning material or for other purposes. The processes include, but are not limited to composting, pelletizing, and chemical stabilization methods.

2.49.4 "Distributor" is a person who prepares the product for distribution and marketing and is responsible for distributing and marketing the product.

2.49.5 "Feed crops" means crops intended for animal consumption.

2.49.6 "Food crops" means crops intended for human consumption.

2.48.6.a "Representative sample" means a sample collected from a population or whole that exhibits the average or typical properties of the larger population or whole.

2.49.7 "Seed material" means source of microorganisms added to waste to accelerate or activate the composting process.

2.49.8 "Stabilization" means the decomposition of organic material to the point where it neither reheats when wetted nor gives off offensive odors.

2.49.9 "Source separated organic waste " means readily degradable organic material such as food, yard and wood waste which is collected separately from the mixed solid waste stream. It does not include sludge or septage.

5.6.2. Requirements for the construction and operation of a composting and other distribution and marketing facilities for sewage sludge, septage, yard waste, and other solid waste.

5.6.2.(a) Permit application requirements. This section describes the permit application requirement for the processing (by composting methods) of sewage sludge, septage, source separated organic waste, other than yard waste, animal manure, or food processing waste. This section contains the requirements, in addition to those set forth in section 3..7, pertaining to the contents of an engineering report to be submitted as part of an application to construct and operate. At a minimum, the engineering report must contain:

5.6.2.b.B. (An engineering report for an application for an initial permit to construct must contain, at a minimum, the following:)

5.6.2.b.A. A regional map (minimum scale of 1:62, 500) that delineates the entire service area of the proposed facility (both existing and proposed); existing and proposed collection, processing, and disposal operations; the location of the closest population centers; and the transportation systems including highways, airports and railways.

5.6.2.B. A vicinity map (minimum scale of 1:24,000) that delineates the area within one mile of the facility boundaries, zoning and land use, residences, surface waters, access roads, bridges, railroads, airports, historic sites, and other existing and proposed man-made or natural features relating to the project.

5.6.2.b.C. A site plan (minimum scale of 1"=200 with five feet contour intervals) that delineates property lines, the location of existing and proposed soil boring, monitoring wells, buildings and appurtenances, fences, gates, roads, parking areas, drainage, culverts, storage facilities or areas, loading areas; existing and proposed elevation contours and direction of prevailing winds; and the location of residences, potable wells, surface water bodies, property lines, and drainage swales located within the site and in the site plan area.

5.6.2.b.D. A map indicating wetlands and flood plains within 1,000 feet of the site, if any. This map may be combined with the vicinity map requirements of paragraph (a) (2) of this subdivision.

5.6.2.b.E. A description of the operation of the facility, Detailed engineering plans and specifications for the entire facility which must include at a minimum:

5.6.2.b.E.(a) A schedule of operation, including the days and hours that the facility will be open, preparations before opening, and procedures followed after closing for the day:

5.6.2.b.E(b) Anticipated daily traffic flow to and from the facility, including the number of trips by private or public collection vehicles, and the quality of material contained in each vehicle;

5.6.2.b.E.(c) The procedure for unloading trucks (including frequency, rate, and method);

5.6.2.b.E.(e) Special precautions or procedures for operation during wind, heavy rain, snow, and freezing conditions; and

5.6.2.b.E.(f) A description of the ultimate use for the finished (compost) product, method for removal from the site, and a plan for use or disposal of finished (compost) product that cannot be used in the expected manner due to poor quality or change in market conditions; and In addition,

5.6.2.b.E.(h) A (description) copy of the label or other information source that outlines the type of waste the (compost) product was received from, a list of any restrictions on use, and recommended safe uses and application rates.

5.6.2.b.F. A description of the design of the facility, including:

5.6.2.b.F(a) the type, size, and associated detention times for the handling, processing, and storage equipment;

5.6.2.b.F(b) the method of measuring, shredding, mixing, and proportioning input materials;

5.6.2.b.F(c) a description and sizing of the storage facilities for amendment, bulking agent, and finished (compost) product;

5.6.2.b.F(d) the separation, processing, storage, and ultimate disposal of noncompostable materials, if applicable;

5.6.2.b.F(e) the location of all temperature and any other type of monitoring points, and the frequency of monitoring;

5.6.2.b.F(f) a process flow diagram of the entire process, including all major equipment and flow streams. The flow streams must indicate the quantity of material on a wet weight, dry weight, and volumetric basis;

5.6.2.b.F(g) the aeration capacity of the system;

5.6.2.b.F(h) the method of supplying and regulating airflow;

5.6.2.b.F(i) the expected mass balance through the composting system;

5.6.2.b.F(j) a description of how the (temperature) monitoring equipment will ensure that facility qualifies as a process to further reduce pathogens;

5.6.2.b.F(k) if applicable, a description of the air emission collection and control technologies;

5.6.2.b.F(l) a description of the method to collect and control surface water runoff and leachate, including the method for treatment or disposal of leachate generated. For uncovered sites, calculations of surface water runoff that must be handled at the site, based on a rainfall intensity of 24-hour duration and a 25-year return period; (and)

5.6.2.b.F(m) a description of any seed material, including its quantity, quality, and frequency of use; and

5.6.2.b.F(n) a description of the method that will be used to ensure product stability prior to distribution.

5.6.2.b.G Every applicant must file a disclosure statement in accordance to Section 3.14

5.6.2.b.H Identification of the personnel required and their responsibilities.

5.6.2.b.I A detailed description of the source, quality, and quantity of the sludge to be composted, including the source, quality, and expected quantity of any bulking agent or amendment (if applicable); and any expected recycle of bulking agent or compost. The description must include the annual solid waste input (both present and projected), the service area population (both present and projected), and any seasonal variations in the solid waste type and quantity.

5.6.2.b.J. If sewage sludge (or septage are) is to be (composted) processed: a detailed description of the source, quantity, and quality (information) of the sewage sludge must be submitted with the application.

5.6.2.b.J(a) a description of the annual sewage sludge production, including any seasonal variations in the sewage sludge quantity or quality during the year;

5.6.2.b.J(b) a description of the quality of the sewage sludge including analyses for total Kjeldahl nitrogen, ammonia nitrogen, nitrate, nitrite, total phosphorus, total potassium, pH, total solids, total volatile solids, cadmium, copper, total chromium, mercury, nickel, lead, arsenic, molybdenum, selenium, and zinc. The minimum number of analyses that must be submitted with the application is dependent upon the design capacity of the sewage treatment plant according to the following:

Sewage treatment plant capacity	Number of analyses	Frequency of analysis
greater than 50 MGD	12	1 per month
greater than 5 MGD but less than 50 MGD	6	1 per month
1-5 MGD	3	1 every 2 months
less than 1 MGD	2	1 every 3 months

5.6.2.b.J(b)(A) each sample that is destined for analysis must be representative and consist of a composite of at least five separate grab samples with no more than one grab sample collected in a 24-hour period. Analytical methods must be acceptable by the department.

5.6.2.b.J(b)(B) sampling for analysis of sewage sludge may be coordinated with digester loading or discharge. Samples must be taken at the final treatment process before entering the distribution and marketing process. With the exception of pH, total solids, and total volatile solids, all results must be reported on a dry-weight basis;

5.6.2.b.J(b)(c) all analyses must be performed by a laboratory acceptable to the department, and copies of the original laboratory results must be included;

5.6.2.b.J(b)(d) the required analyses may be satisfied in part or in full by recent samples analyzed for and reported to the department.

5.6.2.b.J(b)(e) no more than one analysis in a 30 day period is allowed to satisfy the requirement for the minimum number of analyses. Additional analyses may be submitted; and

5.6.2.b.J(b)(f) analysis performed more than one year prior to the date the permit application is received are not acceptable.

5.6.2.b.K If septage is to be processed, a description of the source, quantity, and quality of the septage must be submitted with the application, including:

5.6.2.b.K(a) a description of the proposed sources of the septage, and the anticipated quantity collected;

5.6.2.b.K(b) a description of the quality of the septage including analyses for total Kjeldahl nitrogen, ammonia nitrogen, nitrate nitrite, total phosphorus, total potassium, pH, total solids, total volatile solids cadmium, copper, total chromium, mercury, nickel, lead, arsenic, molybdenum, selenium, and zinc. A minimum of one analysis is required. If the average amount of septage handled ranges between 5,000 and 15,000 gallons per day, two analyses are required; and if the average quantity handled is greater than 15,000 gallons per day, six analyses are required. Samples taken must be representative of the material proposed for composting. With the exception of ph, total solids, and total volatile solids, all results must be reported on a dry-weight basis;

5.6.2.b.K(c) all analyses must be performed by a laboratory acceptable by the department and copies of the original laboratory results must be included;

5.6.2.b.K(d) the required analyses may be satisfied in part or in full by recent samples analyzed for and reported to the department; and

5.6.2.b.L The permit application must contain an operating engineering report (for an application to operate a composting facility) that must contain, at a minimum, the following:

5.6.2.b.L(a) (Detailed) engineering plans and specifications for the entire composting facility, including manufacturer's performance data for the selected equipment;

5.6.2.b.L(b) (Contingency) plans detailing corrective (or remedial) action to be taken in the event of equipment breakdown; air pollution (odors); unacceptable waste delivered to the facility; groundwater contamination; spills; and undesirable conditions such as fires, dust, noise, vectors, lack of a market for the compost product and unusual traffic conditions; and

5.6.2.b.L(c) an operation and maintenance manual. The manual must contain general design information, detailed operational information and instructions. In addition, the manual must list the procedures use in monitoring, sampling and analyzing the solid waste and compost product, and recordkeeping requirements.

5.6.2.b.L(d) A fact sheet and process flow diagram that summarizes actual equipment sizing, aeration capacity, detention times, storage capacity, and flow rates (wet weight, dry weight, and volumetric) for the system and equipment chosen.

5.6.3.(a) This section sets forth the operational requirements for composting facilities handling waste other than animal manure, yard waste, and food processing waste. For waste that possesses a pathogen concern (including sewage sludge, septage, and composting) The distribution and marketing process must meet the criteria for a process to further reduce pathogens (Three) (a) Acceptable methods (are) include:

5.6.3.a.A Using the windrow composting method, the waste is maintained under aerobic conditions during the compost process. A minimum of five turnings is required during a period of 15 consecutive days when the temperature of the mixture is not less than 55° C within six to eight inches below the surface of the pile.

5.6.3.a.B Using the aerated static pile composting method, the compost pile must be insulated and a temperature of not less than 55° C must be maintained throughout the compost pile for at least three consecutive days.

5.6.3.a.C Using the enclosed vessel composting method, the mixture must be maintained at a temperature of not less than 55° C throughout the mixture for at least three consecutive days.

5.6.3.a.D Other methods or operating conditions may be acceptable if pathogens and vector attraction of the waste are reduced to an extent equivalent to the reduction achieved by any of the methods in this paragraph and is approved by the EPA's Pathogen Equivalency Committee and the department.

5.6.3.b The (composting) facility must have sufficient (temperature) monitoring to ensure that the pathogen reduction criteria are met. For a windrow and an aerated static pile composting process, this may include monitoring six to eight inches below the pile surface and for a aerated static pile process, six to eight inches from the outlet of the aeration pipe. For an enclosed vessel composting system, this may include monitoring six to eight inches inside the vessel way and six to eight inches from the aeration piping (when operating in the positive aeration mode).

5.6.3.c. Temperature monitoring must occur, at a minimum, on a daily basis. Other monitoring requirements will be determined by the department on a case-specific basis.

5.6.3.d. The finished compost must be sufficiently stable that it can be stored or applied to land without producing nuisance problems.

5.6.3.e. The finished compost must contain no sharp objects.

5.6.3.f. Surface water drainage must be diverted away from the operating area.

5.6.3.g. The waste storage area and the active composting, curing, and compost storage areas must be located on surfaces capable of minimizing leachate release into the groundwater under the site and the surrounding land surface.

5.6.3.g.A. Composting of yard waste, the waste storage area, active composting, curing and compost storage areas must be located on a clay liner in accordance to Sections 4.5.4.e. through 4.5.4.e.A.(i).

5.6.3.g.A.(a) Must contain a leachate detection zone between the subbase and the 2' clay liner with a permeability of more than 1 x 10 - 7 cm/sec.

5.6.3.g.A.(b) Final surface shall consist of at least 4" slab of reinforced concrete with a leachate collection network.

5.6.3.g.A.(c) Leachate must be collected and removed in accordance to Section 4.8.

5.6.3.g.B. Composting of sewage sludge; septage and other material approved by the Department, the quantity waste storage area, active composting, curing and compost storage areas must be located on a clay liner in accordance to Sections 4.5.4.e. to 4.5.4.e.A.(i).

5.6.3.g.B.a. Must contain a leachate detection zone between the subbase and the 2' clay liner with a permeability of more than 1 x 10 - 7 cm/sec.

5.6.3.g.B.(b) Final surface shall consist of at least 6" slab of reinforcement concrete with a leachate collection network.

5.6.3.g.B.(c) Leachate must be collected and removed in accordance to Section 4.8.

5.6.4.g.B.(d) A gas management system approved by the department.

5.63.h. All leachate must be collected and treated in accordance with Section 4.8.

5.6.3.i. The facility must be designed and operated to control vectors an odors.

5.6.3.j. The facility must not be operated or constructed within flood plains unless provisions have been made to prevent the encroachment of flood waters upon the facility.

5.6.3.k. The operation of the facility must follow acceptable methods of composting which results in the aerobic biochemical decomposition of the organic mateial received.

5.6.3.1. The facility must meet minimum horizontal distance from the perimeter of the site to be used for land application of sewage sludge or septage.

Property line or public right-of-way	200'
Residence	500'
Portable water well or supply	500'
Surface water body or public area	200'

5.6.3.m. For uncovered composting facilities, the leachate collection and treatment system must be adequate to manage the quantity of surface water runoff at the site based on a rainfall intensity of 24 duration and a 25-year return period.

5.6.3.n. Noncompostable solid waste and unacceptable compost must be disposed of in a manner approved by the office of SWM.

5.6.3.o. Daily operational records must be maintained for the facility, which include, at a minimum, temperature data and quantity of material processed.

5.6.3.p. Pollutant limits and product use for land application's.

For (composting) distribution and marketing systems involving (only) sewage sludge or septage (no municipal solid waste) with an amendment, the maximum contaminant concentrations of the sewage sludge or septage must not exceed the following contaminant concentrations:

Parameter	Maximum concentration ppm, dry-weight basis
Mercury (Hq)	10
Cadmium (Cd)	25
Nickel (Ni)	200
Lead (Pb)	600
Total Chromium (Cr)	1000
Copper (Cu)	1200
Zinc (Zn)	2500
Arsenic (As)	60
Selenium (Se)	32
Molybdenum (Mo)	35

Since other contaminants may be present in the sewage sludge as indicated by discharge monitoring reports and other industrial pretreatment requirements, the department, on a case-specific basis, may determine the maximum allowable concentrations of these contaminants in the sewage sludge.

If a sewage sludge or septage contains heavy metals or other pollutants at concentrations greater than those set forth in this paragraph, a permit to operate a composting or other distribution and marketing product facility will not be issued until the sewage treatment plant or septage manager has implemented an identification and abatement program and compliance has been achieved to assure that the sewage sludge or septage has continuously met the quality parameters of this paragraph for a period of at least six months.

5.6.3.q. The quality of the (compost) product will determine the allowable usage, as Class I or Class II. A distribution and marketing product that does not meet either Class I or Class II criteria must be disposed in a manner approved by the department. The criteria are specified as follows:

5.6.3.q.A. Class I compost or product: Sewer sludge or septage.

(a) must not contain contaminant levels greater than the following:

Parameter	Concentration, ppm dry weight
Mercury	10
Cadmium	10
Nickel	200
Lead	250
Total Chromium	1000
Copper	1000
Zinc	2500
(PCB's-total)	1
Arsenic	60
Selenium	32
Molybdenum	35

for a sewage sludge or septage distribution and marketing product, the particle size must not exceed 13 millimeters (0.51 inch), all other types of distributing and marketing products must not exceed 10 millimeters (0.39 inch) particle size;

if compost, must be produced from a composting process with a minimum detention time (including active composting and must not be used on food crops (grown for direct human consumption (i.e., crops consumed by humans without processing to minimize pathogens before distribution to the consumer) with the edible portion of the crop grown below the soil surface, unless the product is generated solely from source separated organic waste; and can be distributed for use by the public, used on (food chain) feed crops and other agricultural and horticultural uses.

5.6.3.q.B. Class II compost or product:

Yardwaste and other approved material use not have contaminant concentrations greater than the following;

Parameter	Concentration, ppm dry weight
Mercury	10
Cadmium	25
Nickel	200
Lead	600
Total Chromium	1000
Copper	1200
Zinc	2500
Arsenic	60
Selenium	32
Molybdenum	35

must not exceed 25 millimeters (0.98 inch) particle size. Particle size greater than (10) 13 millimeters (0.39) 0.51 inch) will be restricted to landfill cover and similar uses approved by the department on a case specific basis; if compost must be produced from a composting process with minimum detention time (including active composting and curing) of 50 days; and must not contain more than four total percent metal, glass, and plastic content by weight, on a dry weight basis;

must be limited to bulk distribution and is restricted to use on nonfood chain crops in locations with limited public access.

5.6.3.q.B.(a) All (compost) product that is bagged must contain a label which indicates, as a minimum, the following information:

(1) the name and address of the distributor of the product;

(2) the type of waste the (compost) product was derived from

(3) any restriction on the use of the product; and

(4) recommended safe uses and application rates.

5.6.3.r. (The results of laboratory analyses must be reported to the department on a quarterly basis for those facilities that product at least one dry ton of compost per day and on a semiannual basis for those facilities that produce less than one dry ton of compost per day. Reporting of the analyses must include copies of the laboratory reports. The laboratory used must be acceptable by the department.) The frequency of

annual (compost)product sampling and analysis for products derived from sewage sludge or septage is outlined (as follows:) below. Requirements for products derived solely from source separated organic waste will be determined by the department on a case specific basis.

Parameter	Average compost produced (dry tons per day)	Frequency of analysis	Number of grab samples for composite
Heavy Metals (cadmium, total chromium, copper, mercury, nickel lead, zinc, arsenic, selenium and molybdenum)	less than 1	semiannual	6 (composited monthly)
	1 to 10	monthly	4 (composited weekly)
Total solids, total volatile solids, total Kjeldahl nitrogen, ammonia nitrogen, nitrate, nitrite, total phosphorous, total potassium, pH	over 10	weekly	5 (composited daily)
Total polychlorinated biphenyls	less than 1	annually monthly	12 composted
	less than 1	semiannual	6 composited monthly

(Note: Analysis of nitrogen series (TKN, NH_3 NO_2 and NO_3) must be performed on either grab samples or samples that are immediately frozen and remain frozen throughout the storage period.) and with the exception of pH, total solids, and total volatile solids, all results must be reported on a dry weight basis; for facilities producing over 10 dry tons per day, the results of laboratory analyses must be reported to the department on a quarterly basis. Reporting of the analytical results must include copies of the original laboratory results; and all analyses must be performed by a laboratory acceptable by the department.

5.6.3.s. The following analyses, in whole or part, may be required for the compost as determined by the department:

(1) Salt content, including chloride, fluorides, and sulfates; and

(2) A scan of the compost material for any or all of the pollutants identified.

5.6.3.t. For facilities producing over 10 dry tons per day, compost must not be distributed until analytical results are submitted to the department.

5.6.3.u. For (composting systems) distributing and marketing facilities involving (only) sewage sludge or septage (no municipal solid waste), the input sewage sludge or septage must be sampled and analyzed.

Sewage Sludge

Parameters: TKN, NH3, NO3, total (phosphorous) phosphorus, total potassium, pH, total solids, total volatile solids, cadmium, copper, total chromium, mercury, nickel, lead, zinc, arsenic, molybdenum, and selenium (and total PCBs).

Sewage treatment plant capacity	Number of analyses	Frequency of analysis
greater than 50 MGD	12	1 per month
greater than 5 MGD but less than 50 MGD	(12)6	1 (per month) every 2 months
1-5 MGD	(6)3	1 every (2)4 months
less than 1 MGD	(4)2	1 every (3)6 months

Each sample that is destined for analysis must consist of a composite of at least five separate grab samples with no more than one grab sample collected in a 24-hour period. (Analysis of nitrogen series (TKN, NH3, NO2, and NO3) must be performed on either grab samples or samples that are immediately frozen and remain frozen throughout the storage period.) With the exception of pH total solids, and total volatile solids, all results must be reported on a dry-weight basis.

5.6.3.v. An annual report must be submitted to the department's central office and the office of the department administering the region in which the facility is located (within 120 calendar days after the anniversary date of the facility's permit to operate) no later than 60 days after the first day of January of each year of operation. The report must include, at a minimum:

5.6.3.v.A. all information and analyses required by the permit (with copies of laboratory reports);

5.6.3.v.B. the type and quantity of the waste, and other materials such as bulking agents, being (composted) processed including the source of the material;

5.6.3.v.C. sampling locations and protocol used to obtain representative samples;

5.6.3.v.D. process operational information including (temperature) monitoring data and significant facility operational problems and actions taken to correct the problems;

5.6.3.v.E. the quantity, by weight and volume, of (compost) product produced and the quantity of (compost) product and other solid waste including unacceptable product removed from the facility;

5.6.3.v.F. a description of the end-product distribution and disposal methods; and

5.6.3.v.G. if applicable, the application sites, application rates, and dates of (compost) product application.

5.6.3.W. All material composted or by products of a composting operation in which that material is disposed of or used on an active or inactive landfill site must have a total TCLP analysis Appendix E.

5.6.4. Permit application: yard waste.

5.6.4.a. Permit application requirement must include the following:

5.6.4.b. A vicinity map (minimum scale of 1:24,000) that delineates the area within one mile of the composting site boundaries; the zoning and land use, residences, surface waters, access roads, bridges, railroads, airports, historic sites, and other existing and proposed man-made features relating to the project.

5.6.4.c. A site plan map (minimum scale of 1"=200' with five feet contour intervals) that delineates the following:

5.6.4.c.A. the location of the proposed composting area and boundary locations, and location of the compost facility within the site boundaries;

5.6.4.c.B. a description of the composting facility drainage characteristics identifying the direction of both site runon and runoff, ditches, and swales together with any runoff controls that now exist or will be implemented with facility construction;

5.6.4.c.C. a delineation of the composting staging and storage area;

5.6.4.c.D. the location of access roads and onsite roads;

5.6.4.c.E. the location of property boundaries and the names and addresses of all contiguous landowners;

5.6.4.c.F. the location of all water supply wells, buildings, residences, surface water bodies, and drainage swales within 1,000 feet of the site. Identification of all buildings owned by the applicant or operator must be included; and

5.6.4.C.G. existing and proposed elevation contours an direction of prevailing winds.

5.6.4.d. A map indicating regulated wetlands and flood plains within 1,000 feet of the site, if applicable.

5.6.4.e. A description of the ultimate use for the finished compost and method for removal from the site and a plan for the disposal of finished compost that cannot be used in the expected manner due to poor quality or change in market conditions.

5.6.4.f. A description of the operation of the facility, including:

5.6.4.f.A. schedule of operation including the days and hours that the facility will be open, preparations before opening, and procedures followed after closing for the day;

5.6.4.f.B. daily traffic flow to and from the facility including the number of trips by private or public collection vehicles and quantity of solid waste contained in each vehicle;

5.6.4.f.C procedure for unloading trucks including frequency, rate, and method;

5.6.4.f.D. special precautions or procedures for operation during wind, heavy rain, snow and freezing conditions;

5.6.4.f.E. equipment used including any shredding, mixing, screening, and turning equipment;

5.6.4.f.F. the method used to collect and control leachate and surface water runoff at the site;

5.6.4.f.G. a description of any seed material in terms of its quantity, quality, and frequency of use;

5.6.4.f.H. composting time duration, time period from initiation of the composting process to completion, and distribution;

5.6.4.f.I. for windrow systems, the windrow construction, including width, length, and height;

5.6.4.f.J. method of aeration, including turning frequency or mechanical aeration equipment and aeration capacity;

5.6.4.f.K. site access control method;

5.6.4.f.L. fire fighting procedures, including availability of water for fire fighting and for moisture addition to the piles; and

5.6.4.f.M. for in-vessel composting systems, a process flow diagram of the entire process, including all major equipment and flow streams; and

5.6.4.f.N. a description of the method to identify, collect, and remove noncompostables.

5.6.4.g. Disclosure statement in compliance with Section 3.14.

5.6.4.h. Personnel required and their responsibilities.

5.6.4.i. A description and an identification of the surface soil characteristics for the proposed site area and depth to seasonal high groundwater and bedrock.

5.6.4.j. A description of the source and composition of the yard wastes involved, including the anticipated quantity of each type of material (leaves, grass clippings and brush), and how each will be handled at the site.

5.6.4.k. A description of any monitoring that will occur involving the composting process or the site.

5.6.4.1. A contingency plan must be developed to outline the steps that will be taken if unapproved wastes are delivered to the composting facility; and in the event of odors, groundwater contamination, and other undesirable conditions..

5.6.5. Operational requirement: yard waste.

5.6.5.a. Management practices and product use. Composting facilities accepting only yard waste are subject to the following operational requirements.

5.6.5.b. Only yard waste may be accepted at this type of composting facility.

5.6.5.c. Composting Area Reference Section 5.6.3.g.A.

5.6.5.d. Drainage must be controlled to prevent leachate runoff from the site. Surface water drainage must be diverted away from the compost site.

5.6.5.3. The operation of the facility must follow acceptable methods of composting which result in the aerobic biochemical degradation of the organic material received.

5.6.5.f. The facility site must be graded to minimize any ponding.

5.6.5.g. The windrow construction and turning frequency must be sufficient to maintain aerobic conditions and to produce a compost product in the desired time frame.

5.6.5.h. The minimum horizontal separation distances set forth in Section 5.6.3.1.

5.6.4.i. The facility must not be operated or constructed on flood plains unless provisions have been made to prevent the encroachment of floodwaters upon the facility.

5.6.5.j Composting must not occur in areas where the seasonal high groundwater is less than 48 inches from the ground surface or where the bedrock lies less than 48 inches below the ground surface.

5.6.5.k. The composting facility must be operated to control vectors and odors.

5.6.5.1. Upon completion of the composting cycle, the compost must receive a final aeration to ensure stability before distribution.

5.6.5.m. The facility must be located on a suitable base to ensure stability and accessibility.

5.6.5.n. Yard waste compost may be distributed for unrestricted use. Storage of finished compost onsite is limited to 24 months.

5.6.5.o. Monitoring, recordkeeping and reporting.

5.6.5.o.A. An annual report must be submitted the department's central office and (appropriate regional office within 120 calendar days after the anniversary date of the facility's permit to operate) the office of the department administering the region within which the facility is located no later than 60 days after the first day of January of each year of operation. The report must include, at a minimum:

5.6.5.o.B. the type and quantity, by weight or volume, of waste received at the facility;

5.6.5.o.C. the turning frequency (if applicable) and the timing and amount of any water addition;

5.6.5.o.D. the quantity, by weight or volume, of compost produced.

5.6.5.0.E. any monitoring that occurred during the operation;

5.6.5.o.F. the quantity and timing of any seed material used;

5.6.5.o.G. the quantity, by weight or volume, of compost removed from the facility; and

5.6.5.o.H. a description of the end-product distribution and disposal system.

Appendix D

Water Quality Analysis Tables

Routine Parameters

Common Name	CAS RN	Suggested Methods	PQL
Field Parameters:			
Static water level..... (in wells and sumps)			
Specific Conductance.....		9050	
Temperature.....			
Floaters or Sinkers 5			
pH		9040	
Eh.....		9041	
Dissolved Oxygen 6.....			
Field Observations 7.....			
Leachate Indicators:			
Total Kjeldahl Nitrogen.....			
Ammonia.....	766-41-7	350.1 350.2 350.3	
Nitrate.....		9200	
Chemical Oxygen Demand.....			
Biochemical Oxygen Demand BOD 5).....			
Total Organic Carbon.....		9060	
Total Dissolved Solids.....			
Sulfate.....		9035 9036	
Alkalinity.....			
Phenols.....		8040	
Chloride.....		9250 9251 9252	
Bromide.....			
Total hardness as CaCO 3....			
Turbidity.....			

Table 1

TCLP compounds—laboratory method numbers and Toxicity Characteristics

Compound	Preparation method	Analytical method	Regulatory limit (ppm)
Metals:	3005	6010	
Arsenic			5.0
Barium			100.0
Cadmium			1.0
Chromium			5.0
Lead			5.0
Mercury	7470	7470	0.2
Selenium			1.0
Silver			5.0
Volatile organics:	8240	8240	
Benzene			0.5
Carbon tetra-chloride			0.5
Chlorobenzene			100.0
Chloroform			6.0
1,4-Dichlorobenzene			7.5
1,2-Dichloroethane			0.5
1,1-Dichloroethylene			0.7
Methyl ethyl ketone			200.0
Tetrachloroethylene			0.7
Trichloroethylene			0.5
Vinyl chloride			0.2
Acid extractables:	3510	8270	
o-Cresol			200.0
m-Cresol			200.0
p-Cresol			200.0
Pentachlorophenol			100.0
2,4,5-Trichloro-phenol			400.0
2,4,6-Trichloro-phenol			2.0
Base/neutrals:	3510	8270	
2,4-Dinitrotoluene			0.13
Hexachlorobenzene			0.13
Hexachlorobutadiene			0.5
Hexachloroethane			3.0
Nitrobenzene			2.0
Pyridine			5.0
Pesticides:	3510	8080	
Chlordane			0.03
Endrin			0.02
Heptachlor (and its epoxide)			0.008
Lindane			0.4
Methoxychlor			10.0
Toxaphene			0.5
Herbicides:	8150	8150	
2,4-D			10.0
2,4,5-TP			1.0

DEPARTMENT OF COMMERCE, LABOR & ENVIRONMENTAL RESOURCES
DIVISION OF ENVIRONMENTAL PROTECTION
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Cabinet Secretary

David C. Callaghan
Director
Ann A. Spaner
Deputy Director

MEMORANDUM

TO: Richard Cooke, Assistant Chief
Office of Waste Management

FROM: Mike Johnson, P.E., Assistant Chief
Construction Assistance Programs

DATE: June 2, 1993

SUBJECT: Comments on Sewage Sludge Management Regulations, [redacted]

We offer the following comments and recommended changes to the above-referenced regulations:

2.6 For sewage treatment facilities regulated under §20-5A, "Chief" should mean the chief of the Office of Water Resources.

2.12 Are sewage treatment plants, especially POTW's that treat septage or sludge produced by other POTW's or package treatment plants considered to be a "Commercial Solid Waste Facility"? If so, why?

2.25 Are sewage sludge land application sites considered to be landfills?

2.42 POTW's and other domestic sewage treatment facilities should be regulated under §20-5A and not under §20-5F, because this results in duplicative regulation. Will all new POTW's or privately owned domestic sewage treatment facilities be required to obtain a Solid Waste permit, and the approval of the Public Service Commission Solid Waste Division, in addition to an NPDES permit and a PSC Certificate of Convenience and Necessity for sewer facilities? Will solid waste siting requirements apply to POTW's?

3.2.1.h. Why can't sewage sludge be applied to soils with a pH of less than 6.2, since metal contaminants are already limited in the sludge being applied, and since the organic matter acts as a buffering agent and results in the soil pH being increased without lime addition?

3.3.1.c. This requirement cannot be met. Virtually all POTW's are located in the 100 year flood plain. Requirements should be the same as for the liquid-stream operations, which means the facility must be operational at the 25 year flood and protected from damage at the 100 year flood.

This, however, is in no way "...prevent(ing) the encroachment of flood waters upon the facility." This requirement would mandate floodwalls to be built around almost every existing and future sewage treatment facility, a requirement that will be physically impossible to construct in many places and extremely expensive at every location.

3.3.1.d. What is the precise and explicit definition of "land surface"? Does this definition include sludge drying beds (both conventional sand beds and synthetic media beds) that have here-to-fore been lined with a single layer of either 20 mil synthetic liner or 6 inches or more of reinforced concrete? Does it also include the sludge storage sheds that are located adjacent to sludge drying facilities, and are concrete lined and covered? Does it include concrete-floored composting buildings? Are other sludge handling facilities (belt press buildings, digestors, etc.) required to be similarly lined?

Current design practice is to provide either a concrete or synthetic liner under all sludge processing and storage areas, and to direct all drainage and process water that could possibly be contaminated back to the head of the liquid processing stream. Requiring a 2 foot clay liner in addition to a concrete cap will complicate design and construction and drive costs of buildings and other facilities up considerably, and provide little, if any, additional protection to the public or to the environment.

3.4.1. Refer to 3.3.1.d., above. Within the confines of a POTW, where all contaminated water is sent back to the head of the liquid process stream, no additional monitoring or treatment should be required, and such water should not be considered leachate.

4.1.2. POTW's are not the only facilities that exclusively treat domestic sewage, since package treatment plants serve a large part of our citizenry. All of these domestic or municipal sewage treatment facilities should be regulated through the NPDES permit.

4.2.2. Are those POTW's that occasionally accept and treat septage and/or sewage sludge produced by other POTW's or private, domestic facilities (i.e. package plants) exempt from this provision also? A significant number of POTW's currently provide such disposal services, but many may refuse if a separate solid waste permit is required. Since sludge produced by the septic tanks and package plants must be taken somewhere else for final disposal, a blanket exemption to this provision should be granted to all sewage treatment facilities regulated under the NPDES permitting system. Otherwise, the result will be a complete duplication of the existing NPDES process, with its attendant submittals and review effort. These requirements appear to apply to true solid waste facilities (i.e. commercial composters, landfills, etc.), and not to domestic wastewater treatment facilities.

4.2.3.a. Soil tests currently done by the WVU Extension Office do not include nitrogen testing. Nitrogen testing is accomplished by tissue analysis and other, non-soil, tests. How is nitrogen to be analyzed?

5.1.1.g. All reporting should be included on the DMR's submitted by the treating facility. Does this also mean that all facilities must now submit DMR's monthly (I certainly hope so!).

6.1. How are fees to be assessed, and when are they due? What are the penalties for non-payment?

6.2. What specifically are the fees to be used for?

6.3 What is the definition of "wet ton"? How will facilities that do not currently dispose of sludge be billed?

cc: L. Eli McCoy, Chief
Clifton Browning
Jerry Ray
Pravin Sangani

Max Robertson

Comments to:
Proposed Sludge
Management Regulations
as of 6-22-93

SANITARY BOARD
CITY OF CHARLESTON
P.O. BOX 1026
CHARLESTON, WV 25324

June 15, 1993

Mr. Bill Rheinlander
Division of Environmental Protection
Office of Waste Management
1356 Hansford Street
Charleston, WV 25301

Re: Sewage Sludge Management Regulations

Dear Sir,

The Charleston Sanitary Board would like to comment on the above regulations. The overall impact of these regulations will be to create greater costs to the local municipality that will require the need to raise rates and fees to the citizens of all political subdivisions.

Specifically, the Charleston Sanitary Board would like to change the following sections under 47-38D-3 and 47-38D-4 to read as below:

a) 3.2.1.h. and 4.2.3.n. ph of 5 or greater, because sewage sludge has a great deal of alkalinity which is beneficial to especially strip mines that consistently have a ph of between 5 and 5.5.

   The heavy metals such as cadmium, mercury, lead, arsenic, etc. are soluble in mineral acids such as sulfuric, nitric and hydrochloric, all of which are highly ionized and possess a ph of less than 1. Therefore these metals will not leach out at a ph of 4 or greater.

b) 3.2.1.i. prohibits the use of sludge on slopes greater than 15%. Should be changed to slopes on which the sludge layer is stable and will not flow.

c) 3.2.1.k. prohibits the use of sludge on less than 20" of soil over bedrock or an impervious pan. There is no environmental reason for this restriction. In addition, these are generally the poorer quality soils that would most benefit from sludge.

d) 3.2.1.1. prohibits the use of sludge on soil with a permeability of less than 0.6 inches/hour ($4.23X10^{-4}$ cm/sec) and greater than 6 inches/hour ($4.23X10^{-3}$ cm/sec). There is no logic to this restriction. A low permeability soil would be a clay which would benefit the organic matter in the sludge, i.e. increase the permeability. A high permeability soil such as a sand would benefit from the organic matter retaining moisture. Concerns about rapid infiltration of nitrates into the ground water are addressed when the agronomic rate is determined.

e) 3.3.1.d. Liner system is required in any area containing sludge or products in direct contact with the ground. All areas under roof should be exempt from the liner system requirements.

f) 3.3.1.d.D. Final surface shall consist of at least a six (6) inch slab or reinforced concrete with a leachate collection network. Restricting the final surface to concrete is unfair and it is inappropriate for a state agency to favor one material over another such as asphalt, slag, or crushed rock. The final surface material should be the responsibility of the facility. The requirement of the final surface is to provide an all weather work surface and protect the liner system.

Section 47-38D-6

6.3 Fee Assessments

6.3.1. This section will impose approximately $1.00 per ton times 14,000 tons per year or $14,000 per year assessment fee.

6.3.2. This section could add another $2.50 per ton or another $35,000 per year.

6.3.3. This section really begins to hurt economically. If tipping and other fees are added, it could cost the City of Charleston anywhere from $40.00 to $70.00 per ton, or an additional $560,000.00 to $980,000.00 per year disposal costs.

To impose tipping fees on sludge going to a landfill that is to be composted is counter productive, and precludes

any decision to recycle and reuse this beneficial product.

No tipping or environmental assessment fees should be charged to sludge that is going to be recycled for beneficial reuse.

Thank you for this opportunity to respond to the proposed regulations.

Sincerely,

R. Dan Halloran
General Manager

RDH:gw

cc: Clifton Browning
Division of Environmental Protection

Sudhir Patel
Division of Environmental Protection

Brooke County Sanitary Landfill

RD# 2, Box 410
Colliers, WV 26035
Tele: (304) 748-0014
Fax: (304) 748-0005

"If It's Service, it's Us"

June 17, 1993

Mr. William Rheinlander
Information Representative
Department of Commerce, Labor and
Environmental Resources
Division of Environmental Protection
Office of Waste Management
1356 Hansford Street
Charleston, WV 25301

Dear Mr. Rheinlander:

The proposed sludge regulations offer the State of West Virginia the opportunity to develop a comprehensive program for the beneficial reuse of a waste. However certain sections of the proposed regulations are counter productive and will have an adverse impact on the beneficial reuse of municipal sludge and cost of waste water treatment.

The following sections need eliminated or changed:

a) 3.2.1.h and 4.2.3.n. restricting use to soils with a PH greater than 6.2. Normal Brooke County soil ranges from PH 5.2 to PH 7.2 and compost use should be permitted on soils with a PH of 5.0 or greater.

Compost and sludge contain considerable alkalinity which is beneficial to acidic soils. The concept that oxidation of sulfides and acid rain can over a long period of time neutralize the add alkalinity and return the soil to the original low PH has been proposed. The concern expressed is that the neutralization of the alkalinity causes the compost residual to ultimately be exposed to the original low soil PH condition with the potential for acid leachating of the heavy metals present in the compost or sludge.

This leachating of heavy metals from compost residuals is not possible at normal acid soil PH's of 5 or greater because the metals are oxidized and not soluble in measurable levels. The TCLP procedure uses a strong acid solution to extract soluble metal ions from a waste. Any material that passes the TCLP procedure is not going to leach metals at soil PH levels of 5 or greater.

This section of the regulation would prevent using compost on acid mine spoils that would greatly benefit from both the organic matter and alkalinity present in the compost or sludge.

b) 3.2.1.i. prohibits the use of sludge on slopes greater than 15%. Should change to read: Prohibit placement of sludge on slopes which would allow the sludge to flow. For example 40% solid sludge will be stable on a much steeper slope than 20% solid sludge.

c) 3.2.1.k. prohibits the use of sludge on less than 20" of soil over bedrock or an impervious pan. The environmental reason for this restriction is not apparent. These are generally the poorer quality soils that would most benefit from sludge or compost.

d) 3.2.1.l. prohibits the use of sludge on soil with a permeability of less than 0.6 inches/hour ($4.23X10^{-4}$ cm/sec) and greater than 6 inches/hour ($4.23X10^{-3}$ cm/sec). What possible logic could require a soil permeability restriction? A very high permeability that could allow nitrates to enter the ground water? This remote concern is addressed in the agronomic rate calculations. This section should be eliminated.

e) 3.3.1.d. Liner system is required in any area containing sludge or products in direct contact with the ground. Buildings and other work areas under roof need to be excluded from the liner requirements.

f) 3.3.1.d.D. Final surface shall consist of at least a six (6) inch slab of reinforced concrete with a leachate collection network.

Section 3.3.1.d.D. is an example of how inappropriate a specific method of accomplishing a goal is in regulations. The unstated purpose of this section is to provide a durable all weather work surface that protects the liner system and provides a method for leachate collection. The regulation should be changed to: "The final surface shall consist of an all weather durable working surface that fully protects the liner system (3.3.1.d.B.) and provides a means of collecting the leachate."

The claim by the West Virginia Department of Environmental Protection that there is no economic impact from the proposed regulation is not correct. There are considerable taxes and fees imposed by the regulations that will be paid by the citizens of West Virginia. Also without the above proposed changes, the cost of disposing sludge through land application and composting will be unnecessarily increased with no associated environmental benefits.

Since clean water is the goal of everyone and all water treatment processes generate sludge, any unnecessary cost imposed on the disposal of sludge will be an added financial burden on cleaning the waters of our state and country. These costs are ultimately paid by the citizens.

Thank you for this opportunity to comment on the proposed sludge regulations.

Sincerely,

David C. Brown, P. E.
Engineer Manager

DCB/jk

Mat Robertson

BROOKE COUNTY SOLID WASTE AUTHORITY
P.O. Box 50
Wellsburg, WV 26050

COMMENTS
PROPOSED RULE - TITLE 47, SERIES 38D
SEWAGE SLUDGE MANAGEMENT REGULATIONS

Senate Bill 288, W.Va. Code 20-5F-1b(e), makes sewage sludge subject to the same tipping and other fees levied by "this Chapter", being Chapter 20 of the Code, on the disposal of solid waste.

The proposed Regulation, 47-38D-6.3.3, would make sewage sludge only subject to the tipping and other fees levied by W.Va. Code 20-5F-5a(h)(1).

The statute requires that sewage sludge also be subject to the fee imposed by W.Va. Code 20-9-13 but the Regulation is silent and should, therefore, be expanded to include the 20-9-13 fees.

Dated the 21st day of June, 1993.

Brooke County Solid Waste Authority

By Silvio Paesani
Silvio Paesani, Chairman

BROOKE COUNTY SOLID WASTE AUTHORITY

P.O. BOX 50
WELLSBURG, WV 26070

PHONE NO.(304)-737-0780 FAX NO.(304)-737-0781

COVER

FAX TRANSMISSION

TO: Office of Waste Management
Division of Environmental Protection

FAX NO. (304) 558-0256

ATTN: Bill Rheinlander

FROM: SY Paesani Chairman Brooke Co. SWA.

DATE: 6-22-93

COMMENTS: A Hard Copy will Follow This Fax. Thanks

NUMBER OF PAGES (INCLUDING COVER): 2

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GASTON CAPERTON
GOVERNOR

State of West Virginia
Department of Tax and Revenue
TAX DIVISION
P. O. Box 2389
Charleston, WV 25328-2389

JAMES H. PAIGE III
SECRETARY

June 22, 1993

Office of Waste Management, DEP
Attn: Bill Rheinlander
1356 Hansford Street
Charleston, WV 25301

RE: Comments of the Department of Tax and Revenue on the "Sewage Sludge Management Regulations" filed by the Division of Environmental Protection

Dear Mr. Rheinlander:

This is in reference to the implementation of the recently enacted S. B. No. 288 and the regulations filed by your division pertaining to this legislation. This legislation establishes a program for the regulation and management of sewer sludge and expressly makes sewer sludge subject to the same tipping fees as the disposal of other solid waste.

Apparently there were issues raised during the legislative session concerning the taxation of the sewer sludge, such as whether the sludge would be taxed on a wet or dry basis, and whether a tax credit would be given for compost that is later removed from the landfill. The Department of Tax and Revenue was not part of these discussions. Therefore, we are unfamiliar with these issues or the options that are available, nor does the statute provide us with any particular guidance on these issues.

After meeting with Ann Spaner and Thomas Gillooly to discuss this legislation and the settlement of the landfill case, it was our understanding that these issues concerning the taxation of sewer sludge would be resolved in the regulations recently filed by your division. Upon review of the proposed regulations, we did not find any particular guidance on the treatment of sewer sludge other than it was to be taxed in a manner similar to other solid waste.

Since neither the statute or the regulations filed by your division provide any guidance on the issues raised by the taxation of sewer sludge, and our Department certainly has no expertise in determining such matters, we are not taking any position on how sewer sludge is to be taxed. As directed in the regulations, sewer sludge will be taxed in a manner similar to all other solid waste and no special treatment will be provided. This means that sewer

sludge will be taxed based on the tons crossing the scales and no credit will be allowed for the removal of any compost from the landfill. We do not feel that it is the responsibility of the Department of Tax and Revenue to allow any different treatment of sewer sludge unless directed to do so by the statute or regulations. It is our opinion that it is the responsibility of your Division to make decisions on such issues and to provide guidance to the Department of Tax and Revenue in the regulations.

If you wish to discuss this matter further, please contact Lydia S. McKee, General Counsel, Revenue Operations at 558-8730.

Sincerely,

Richard E. Boyle, Jr.
Assistant Secretary/
Assistant Tax Commissioner

cc: James H. Paige, III
Secretary
Department of Tax and Revenue

Thomas Gillooly
Department of Commerce, Labor and Environmental Resources

David Callaghan
Director
Division of Environmental Protection

Ann Spaner
Deputy Director
Division of Environmental Protection

Carey Technologies, Inc.

Since 1907

June 18, 1993

Mr. Bill Rheintander
Division of Environmental Protection
Office of Waste Management
1356 Hansford Street
Charleston, West Virginia 25301

RE: Proposed Sludge Regulations

Dear Mr. Rheintander:

Submitted for your review are Carey Technologies comments on the proposed sludge regulations. These regulations, as written, will severly limit West Virginia communities options for sludge disposal. In fact, these regulations promote minimal sludge treatment (disinfection and heavy metal reduction) followed by landfill disposal.

CAREY TECHNOLOGIES' COMMENTS ON PROPOSED SLUDGE REGULATIONS

2.13/2.14 - "Composting" should not be used as terminology. The terminology should reflect the new Federal 503 regulations. "P.F.R.P." or "E.Q.S." or "Class A" technologies are all terms that refer to a higher level of treatment.
This can include composting, Alkaline Pasteurization, or possibly pelletization. There are many other alternative technologies to composting, many are safer.
Does the definition of composting include N-Viro or do they recognize composting as an entirely different operation/process (which it is).
Similarly, "Composting Facility" means what? Can our operation be set up at another location in the same county and be considered part of the treatment plant or does it actually need to be connected. As P.F.R.P. treatment it could be argued that this was part of the wastewater treatment process.

2.25 - If a materials recovery facility does not include a composting facility, where would an N-Viro A.A.S.S.A.D. facility fall. Would it be considered a mixed waste processing facility?

2.33 - Sludge should be considered a recycled product after it has been subjected to an approved "Class A" treatment. At least with further restrictions (such as 50% solids content) this status should be attainable.

2.35 - How will incinerator ash be classified?

2216 Young Drive Lexington, KY 40505 ph. 606/266-2131 fax 606/269-6738

2.36 - This paragraph should include some of those technologies. "Alkaline Pasteurization" should be included. At this time there are only 8 In-Vessel composting facilities in operation in the country. There are over 30 Lime Pasteurization facilities.

2.44 - It does not appear that this article would allow lime sterilization to be performed, because when Lime Sterilization is wet it does give off offensive odors as does composted material. Alkaline Pasteurized material does not.

3.1 - Federal regulations set out a guideline for "Clean Sludge" or "E.Q.S." (exceptional quality sludge) with the intent to promote beneficial re-use. If the BIO-SOLIDS or products incorporating bio-solids are of a low enough contaminant level they are deemed safe enough for unrestricted sales. This will allow for the successful marketing of the final product. If the State of West Virginia would like to place more stringent requirements on these products, They might consider requiring a minimum of 50% dryness or a more restrictive fecal coliform count.

(3.1 con't) pH could also be a factor in this requirement. The N-Viro A.A.S.S.A.D. process is mentioned specifically in the E.P.A. 503 regulations as a E.Q.S. technology, where does West Virginia acknowledge this? (see E.P.A. 503 regulations attached).

3.2 thru 3.2.3. - These restrictions will eliminate the possibility of ever marketing sludge based products (even if generated locally) to the general public in the State of West Virginia. This is in direct opposition to the intent of the establishment of a "Clean Sludge" guideline. As this regulation is written, all technologies that seek to utilize the benefits of properly treated biosolids will fall under this restriction, regardless of the means by which the final product is produced or the final form that the product will take. Specifically:

3.2.1. This says "sludge will not be applied to land...". N-Viro Soil, or Alkaline Pasteurized Biosolids is a product and is not sludge.

3.2.1.e. - This will eliminate the possibility of the use of Alkaline Pasteurized Biosolids in Department of Transportation projects such as re-seeding after construction and for erosion control. This is one of the most exciting opportunities in the recycling of properly treated material.

3.2.1.g. - This restriction does not include any acceptable distance. If the run-off from the material is clean then this restriction would be unnecessary. There should at least be a table of acceptable distances and/or acceptable levels of contaminants in the runoff.

3.2.1.h. - This would eliminate the use of ALKALINE treated Biosolids on disturbed lands as a way of raising the pH. Such as around strip mines , construction sites and on reclamation projects. This seems to be intended for application of sludge that is acidic. It has been well documented that ALKALINE PASTEURIZED biosolids are an effective amendment product for raising the pH of lands like these. Even in one time applications.

3.2.1.i. - This would eliminate the use of these products for erosion control on slopes, a very appropriate use for some biosolids based products. This also has been documented.

3.2.1.k. - Again this would limit the use around strip mine areas (the areas in most need of soil amendment). N-Viro Soil, if blended with clay results in an acceptable topsoil material. It has a stable pH and exhibits the characteristics of soil.
Heavy Metals are bound in an insoluble metal hydroxide salt coating, much the same way as heavy metals present in any soil material. The contaminants are permanently bound (unless, as with native soils, they are heavily stressed with acid). N-Viro Soil has been used as landfill cover, structural/construction fill material, a soil amendment, ag-lime and fertilizer with no adverse affects to the environment.
Would this material (blended or unblended) qualify as soil that could be utilized to achieve this 20" requirement?
If so, then this restriction should not apply to land application of N-Viro Soil. The U.S. E.P.A. has recognized Chemical Fixation as "the best demonstrated available technology to immobilize heavy metals".

(3.2.1.k. cont'd) Composting does nothing to immobilize heavy metals, in fact if the resulting compost is on the acidic side, heavy metals could continue to leach from this material indefinitely. Clearly the A.A.S.S.A.D. process deserves recognition above that of compost for land application for this reason.

3.2.1.l - This seems overly restrictive and should have other parameters, such as depth of topsoil, clay or bedrock. In addition just as above, N-Viro Soil should be blended with this material to make a better product.

3.2.3. - These Dry Ton limits should not be so low for all circumstances. This may work for ag. application, but in strip mine reclamation applications and in some landfill cover or maintenance applications this could prevent the goal from being achieved. This should have additional parameters allowing certain quality material greater leeway.

3.3.1.a. - This makes no provision for clean runoff and does not define what level of contaminants are acceptable/unacceptable. In addition if the processing site is located at the landfill (which is already lined, with a leachate collection system, then this is redundant.

3.3.1.d through 3.3.1.d.D. - These restrictions could unnecessarily prevent the recycling of Biosolids in the State of West Virginia due to cost. Again "Clean Sludge" or E.Q.S. Biosolids should be treated differently than extremely contaminated "Class B" materials. These restrictions may be written for in-vessel composting. They are extremely restrictive and overly protective. The result will be increased costs that will cause clean re-usable Biosolids to be dumped in a landfill for disposal. Again, there should be exceptions for material that has been treated to a safer level or for material that may be "safe" before treatment.

3.3.1.d.b. - If the installation were on solid rock, would a clay liner still be required? Solid rock is certainly more impenetrable.

3.3.1.d.c. - What exactly defines a "Leachate detection zone?"

3.3.1.d.D. - A final surface should also have the option of being 8" of Dense Graded Aggregate (compacted) and 4" of Asphalt as an alternate to the 6" of concrete.

3.4.1. - The question again comes up - N-Viro Soil (or A.A.S.S.A.D. pasteurized Biosolids) is not sludge, and water that comes in contact with it should not have to be handled in any special manner. This has been repeatedly tested-and proven. This product can be stored in the open indefinitely.

3.5. thru 3.6.1. - This regulation does not take into account final product that may be used as landfill cover. Some Class A processes (like the N-Viro Process) result in a final product that is no more sewage sludge than gasoline is crude oil or wastewater is clean effluent.

(3.6 thru 3.6.1 cont'd) If this material were to be judged based on 25% of the total waste disposed of at the landfill, then once again an opportunity to recycle biosolids will have been lost. There should be restrictions on the suitability of Biosolids derived products as landfill cover (such as 50% dryness, compaction or permeability, pH, and vector attraction) this restriction is far to broad to be sensible.

4.1.3. This seems to say that the operation could be placed at the sewage treatment plant. Is this true?

4.1.5. - This paragraph should allow for variances of permits-by-rule at the discretion of the State.

4.2.1.g. - This should read (....or final product)

4.2.1.h. - This is to restrictive for the sale of E.Q.S. material. This regulation will severely inhibit a marketing program for Class A or E.Q.S. products.

4.2.1.j. - This should read (....unless granted a variance by the State)

4.2.2. - Again, can the mixing operation for an A.A.S.S.A.D. facility be put at the wastewater treatment plant?

4.2.2.c.E and 4.2.2.c.F - These paragraphs should refer to "E.Q.S." or "P.F.R.P." or "Class A". There are other appropriate technologies and the word compost is not only a competitive advantage for compost system vendors, it is misleading.

4.2.2.c.H. - The N-Viro Process in Wheeling will use Fly Ash. This is not a "bulking agent". It is required for pH maintenance and for further drying. The definition of a bulking Agent should be clarified.

4.2.2.e.F thru 4.2.2.e.K - These regulations are written specifically for in-vessel composting systems. Not only do they fail to address other technologies they imply a preference from the State's perspective and are therefore unfair. They should be removed or amended appropriately.

4.2.3. - It is our understanding that under the Federal E.P.A.'s 503 regs. that P.F.R.P. processes such as the N-Viro A.A.S.S.A.D. do not require some of the regulations stated. In fact, N-Viro Soil is considered so safe that it is the only sludge based product available in the world that can offer Product Liability Insurance (through C.N.A. a national Underwriter). This at least demonstrates the level of safety that these products can achieve. (Please see attached 503 regulations, see note on page 8, 5th paragraph)

4.2.3.a. - If marketing a "Clean, E.Q.S., Class A" or other such treated final product this amount of information is unrealistic and will impede marketing efforts drastically.

4.2.3.c. - This is also overly restrictive. If the material qualifies as a clean material it is operationally impossible to provide this level of detail for every single end-use. These uses could be yards, maintenance on bare spots, construction sites etc. At the higher level

of treatment Biosolids derived fertilizers, ag-limes, and soil amendment products are generally much "cleaner" than commercial fertilizers. Commercial products do not have this restriction and if the Biosolids derived products cannot compete on a cost and convenience basis, they will not be purchased and the recycling program will fail.

4.2.3.f and 4.2.3.g - Sometimes the owner of the property does not know this information. This is impractical!

4.2.3.j. - N-Viro Soil is not sludge!

4.2.3.n. This is another reason to establish a mechanism for higher application rates of E.Q.S. products. It has been repeated demonstrated that Alkaline Pasteurized Biosolids, for one, can improve the pH of acidic soils indefinitely after only one application. Carey Technologies has achieved this on soils with a pH as low as 2.3 with applications of 70 to 100 dry tons per acre. Grelatively little considering the resulting vegetation and improvement of water quality-no additional applications have been required.

5.3 this whole section should exempt E.Q.S. products or at least set guidelines for cleaner or diluted materials.

5.3.4. - N-Viro Soil has been cleared by the 503's to be spread on food chain crops.

6.3.1 and 6.3.2 These fees should be reduced according to the level of treatment that the material has undergone. Land Applying Class B liquid is not the same as a farmer using a registered fertilizer made from Biosolids that have under gone treatment from a class A technology. The use of a fee system to support inspection and fund research is good, however these fees are excessive and could prevent recycling from taking place due to the competitive bidding process (it could always be cheaper to dispose of in the landfill). In addition by applying these fees "across the Board" the State is contributing to the removal of any incentive that a generator may have to seek a higher and safer level of treatment for his/her Biosolids. What exactly is a material derived from sewage sludge? This needs to be defined. Why do smaller operations subject to less treatment pay less than operations with pre-treatment requirements?

6.6.3. - Municipalities and Landfills should be able to make cover out of their own products--particularly if these products can be used without further permitting--according to the 503 regs. mentioned in this document.

Appendix A - Again these rates are excessive. Specifically the frequency of monitoring for 1,500 to 15,000 and over 15,000 dry ton facilities. It could be estimated that a facility generating over 15,000 dry tons per year would spend over $150,000 in testing alone. If these guidelines are not reduced it will contribute further to higher costs, again reducing the realistic opportunities to recycle this valuable (if properly handled) resource.

We appreciate your review of our comments. Our goal is for West Virginia regulation to recognize sludges that have been treated to the highest level possible by allowing the beneficial reuse of the finished product.

Sincerely,

CAREY TECHNOLOGIES, INC.

Burgess Carey
Vice President

ENCLOSURES: Comments from Dr. Terry Logan, Professor of Soil Chemistry
Comments from Dr. Jeffery Burnham, Professor Medical College of Ohio
Comments from Mike Nicholson, National Project Manager N-Viro Energy Systems, Ltd.
Technical Information on N-Viro Soil (A.A.S.S.A.D.) Process

Agronomy Department
The Ohio State University
2021 Coffey Road
Columbus, OH 43210

June 9, 1993

Mr. George Carey, President
Carey Technologies, Inc.
2216 Young Drive
Lexington, KY 40505

Dear George:

Thank you for sending me a copy of the proposed sludge regulations for West Virginia. I am sorry that I have had so little advanced warning that they were coming or I would have been able to offer a more complete analysis. As you know, I cochaired the EPA Peer Review Committee that evaluated the original draft of the 503 rule, and I was a consultant to EPA in developing the revised rule. I am also working with Ohio EPA in revising our state regulations to conform to 503. It is clear from reading the West Virginia regulations that they are designed, and rightly so, to protect human health and the environment from PSRP (Class B) sludges that cant meet the more stringent 503 criteria for Exceptional Quality Sludges (EQS). My concern is that they will unnecessarily penalize any West Virginia treatment plant that wishes to produce an EQS product by lumping all sludge treatment technologies and sludge-derived products together. In fact, as the rule is presently written, there is no incentive whatsoever for West Virginia treatment plants ever to upgrade their technologies to produce a better product that can be recycled beneficially rather than disposed of. The whole intent of the EQS component of the 503 rule was to provide incentives to treatment plants to reduce metal levels in the sludge, achieve complete pathogen destruction, and stabilize the product by reducing the regulatory burden on these materials. By setting high quality standards that are quantifiable through testing, human health and the environment is protected and he product is available for beneficial use by farmers, horticulturists and for mine reclamation. The combination of restrictions in the West Virginia regulations and high user fees means that the advanced technologies available today to treat sludge will not be used in West Virginia, nor will high quality organic products be available for agriculture and reclamation.

My recommendation is that EQS sludge-derived products be treated separately in the regulations and that they be exempt from site-specific limitations except as required in the state for fertilizer, lime or manure. For example, I have no problem with a reclamation one-time use limit of 50 to 200 tons/acre of N-Viro Soil or an EQS compost for abandoned minespoil together with adherence to other reclamation requirements such as slope grading, seeding, etc. I also believe that EQS materials should have to be tested more frequently than a Class B sludge because we are placing the regulatory control on the quality of

the product not on use of the product. Because EQS materials do not need to be tracked in the field, they should be subject to lower user fees.

George, I hope that you are able to convince the West Virginia regulators that unnecessary restrictions on high quality EQS products are not in the best interests of the regulated community or potential users of these products.

Sincerely,

Terry J. Logan
Professor of Soil Chemistry

cc: Mr. Mike Nicholson, N-Viro Energy Systems, Ltd.

N-VIRO

N-Viro Energy Systems Ltd.

June 16, 1993

Mr. Bill Rheintander
Division of Environmental Protection
Office of Waste Management
1356 Hansford Street
Charlestown, WV 25301

Dear Bill:

I would like to comment on the proposed sludge regulations for the State of West Virginia. N-Viro Energy Systems applauds West Virginia DEP for accepting the 40 CFR 503 regulations. N-Viro, whose mission is to convert organic and alkaline waste materials into safe community acceptable products for the purpose of distribution and marketing, technically supports and encourages the incorporation of 40 CFR 503 sludge management practices into all state management plans. More specifically, N-Viro promotes the importance of "EQS" products and encourages sludge managers to implement programs that take advantage of technologies that produce exceptional quality products.

Technologies like pelletization, invessel composting, and advanced alkaline stabilization with subsequent accelerated drying, produce community acceptable, marketable, EQS products with proven markets and high consumer demand.

N-Viro, as a leader in the field of beneficial reuse, has a proven track record of developing distribution markets. N-Viro recognizes that in order for resource conservation and recovery to be effective and efficient products must be pulled by demand from the market place not forced upon the market or the general public because of over production by industry or a POTW. Products must be desirable, valuable, economical and made available at the time of demand not at the time of production. (This means community acceptable storage capabilities for inventory.) EQS products like pellets, compost and N-Viro Soil, have significant value added attributes and have established themselves in markets where the buying influence has evaluated them under the same considerations as alternative competitive products; i.e. fertilizers, peat and aglime. Examples of established products include Milorganite; pellets manufactured by the City of Milwaukee, WI, Comtil; compost marketed by the City of Columbus, OH, and N-Viro Soil marketed by the City of Toledo, OH, the City of Des Moines, IA, Syracuse, NY, AgOrganics, Inc. of Philipsburg, NJ, and products marketed by Carey Technologies of Lexington, KY.

If EQS products are to achieve market penetration and compete for market share in the private sector, they will have to be recognized by the state as products, not waste, and managed as such. If it is the divisions intent to adopt the 503 regulations, N-Viro strongly recommends the full adoption, which means that EQS products are separate from these regulations and managed as products for distribution and marketing. Also, technologies that produce these products should be spelled out in the regulations as they are the first line of communication with the industry and the general public. If West Virginia's intent is to move the industry to produce materials with the

3450 West Central Avenue Suite 328 Toledo, Ohio 43606
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safest levels of metals, the highest levels of disinfection and stable community acceptable products, then it must provide the incentives to pursue technologies that have the capability to produce EQS materials.

I have several comments directly related to the regulations. I will try to summarize my comments.

1. The state must recognize Exceptional Quality Sludge technologies as well as separate EQS products for West Virginia. These products will need specific distribution and marketing guidelines. However, these plans should be approved under separate cover (see enclosures: N-Viro Soil Distribution & Marketing plan for the State of Ohio. N-Viro Soil Distribution & Marketing plan for the State of Michigan and New York State Sludge Beneficial Use Manuals).

2. The text of the regulation is confusing as it implies the term "composting" as the treatment process. Composting is a biological process of treating sludge but is only one of seven or eight processes to treat and handle organic waste. Also, compost technologies may or may not create an EQS PFRP product. I suggest using terms like "treatment process or sludge conversion technology". Further division between EQS products and all other qualities of "residual biosolids".

3. Definitions should be expanded to include the following:
   EQS products
   Residual Biosolids
   Class A treatment processes
   Class B treatment processes

4. 3.1 - Need statement excepting EQS products from further regulations.

   3.2.1.b Materials with sufficient $CaCO_3$ buffering composting should be exempt from this rule.

   3.2.1.1 Logan must address.

   3.2.3 Exemption for EQS materials

   3.3.1.d Must be addressed by environmental engineer. Recommend consultation with Dr. Doug Borgatti.

   4.2.2. cE Example of point number 2 (take out reference to compost) ie. A description of the ultimate use for the finished EQS products or residual biosolids materials ..etc.

   4.2.2.cF Take out word compost. Use EQS product or residual biosolids.

   4.2.2.cG - 4.2.2.cJ All parameters are specified to compost applications. The state should either be less specific and more general as relates to specific technologies and call for specific parameters to be spelled out in each permit application or list parameters for all sludge conversion technologies.

4.2.3d EQS products must be exempt

4.2.3e EQS products must be exempt

4.2.3f EQS products must be exempt

4.2.3h EQS products must be exempt

4.2.3i EQS products must be exempt

4.2.3j EQS products must be exempt

4.2.3l EQS products must be exempt

4.2.3m EQS products must be exempt

4.2.3n EQS products must be exempt

Thank you for the ability to respond during this time period. Please feel free to contact me as I can further comment or perhaps make recommendations to other N-Viro consultants regarding these issues.

Sincerely,

Mike Nicholson

Michael G. Nicholson
National Product Manager

MGN/tl

Consultants: Dr. Doug Borgatti, Mid-Atlantic N-Viro
David Sloan, N-Viro Soil South
Dr. Jeff Burnham, Medical College of Ohio
Dr. Terry Logan, Ohio State University
Neil Webster, Webster Environmental & Assoc.

Medical College of Ohio **Department of Microbiology**

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419-381-4323
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MEMORANDUM

TO: Mr. George Carey
President, Carey Technologies

FROM: Jeffrey C. Burnham, Ph.D.
Professor, Medical College of Ohio
Consultant, N-Viro Energy Systems, Ltd.

DATE: June 14, 1993

SUBJECT: Sludge rules in the State of West Virginia

Thank you for informing me of the pending Title 47-Series 38D rules in the State of West Virginia concerning the treatment and usage of municipal wastewater sludges. I wish to respond because I certainly can understand why the rule makers in that state would want to restrict poorly treated sludges, particularly those that are transported into their state from other areas of the country. What I can't understand is their apparent lack of recognition of well processed sludge products that do meet the 1993 USEPA's 503 rule for "Exceptional Quality Sludges" (EQS).

I recently had the opportunity to address this same issue in the legislature of the State of Ohio and I testified (see attached statement) that interstate transport of sludges should be restricted to only the highest quality sludge products. There is no excuse for one state passing off its waste products to another state. The new sludge regulations make it possible for state legislators to rationally restrict this interstate transport to nationally defined high quality sludge products, i.e.., the EQS standards.

In addition, because of this testimony, I was invited to participate in an interview program on the Public Broadcast System television program entitled "Making Peace With Nature" in which I was asked to address this same issue about sludge use on lands. I am having a video tape addressing this program and a week's earlier program with an Ohio legislator mailed to you so that it could be forwarded to the staff of the Division of Environmental Protection (DEP). I strongly make the point that regulators and legislators need to recognize the value of having a defined high quality sludge if they are going to support land application programs in their states.

I have the following specific comments:

1. Interstate transport of sludges into West Virginia should be restricted to only sludge products that meet the USEPA's EQS standard for metals, microorganisms and vector control. If an outright ban is not proposed on interstate sludge transport I would recommend that to discourage other states from dumping their

sludges in WV high fees should be collected on any sludge coming into WV not meeting this EQS standard.

2. The WV rules need to support the concept of beneficial reuse of resources such as properly treated and stabilized municipal sludges, especially those that are produced within their own state. The WV rules should not penalize EQS sludge land application programs when these are produced from WV communities. I strongly believe they should encourage use of these products. Fees should be established for those sludges that do not measure up to this standard which will gradually force sludge processors to meet the highest standards.

3. Land application restrictions for EQS sludges should be limited to those addressed in the 503 rules, e.g.., no application on frozen ground. Some of the concerns addressed specifically in section 47-38D-3 such as no application with 50 feet of a federal or state highway is not reasonable given the excellent reclamation and reconstructive soil properties of a granular EQS sludge. Also N-Viro Soil has been used to advantage on steep slope intermediate cover of landfills (i.e.., Middlesex, NJ) to help prevent erosion of the slope and to help establish a grass cover.

4. DEP needs to simplify the regulations as they are presented by setting up a clear dichotomy for EQS sludge products versus non EQS sludges or sludge products. Most of the restrictions in this 38D rule would be unnecessary if land application programs were limited to EQS sludges. If WV desires the option of allowing the application of lower quality sludges then all these restrictive rules in Title 47-Series 38D should specifically address all sludges of less than EQS quality.

5. If WV DEP believes additional restrictions are desirable on sludges, including even EQS sludge products then consideration of a minimal percent solids, e.g.., 50%, increases the stability of the product and increases the variety of uses the product can meet. In addition WV could require that all sludge products demonstrate that they can be stored without adverse effect with regard to odors and microorganism regrowth for a period not less than 60 days. This would have to be demonstrated to the satisfaction of the state sludge coordinator or similar DEP official for each sludge processor within WV. Failure to meet such standards would trigger the fee structure described above (item 2) for sludges less than EQS.

I believe the intent of my comments is clear in the 5 items above. The WV DEP should be encouraging the use of high quality municipal wastewater sludges because of their safety and value in many markets including agriculture, reclamation, soil remediation and landfill cover. If there are questions about my comments I will be pleased to discuss them at your convenience.

Thank you for the opportunity to address this most important issue.

xc: J. Patrick Nicholson, CEO, N-Viro Energy Systems, Limited
Chris Mahoney, National Sales Manager, N-Viro Energy Systems, Limited

BIO GRO Systems

Sludge Management • Specializing in Beneficial Use

June 21, 1993

Mr. Bill Rheinlander
Division of Environmental Protection
Office of Waste Management
1356 Hansford Street
Charleston, WV 25301

Re: Proposed Sewage Sludge Management Regulations (Title 47, Series 38D)

Dear Mr. Rheinlander:

Bio Gro Systems, Inc. operates biosolids land application projects throughout the United States. Our experience includes permitting land application sites, transporting and land applying biosolids on agricultural land and reclamation sites, managing field operations, and performing monitoring and reporting for land application programs. We also have experience permitting and operating biosolids processing facilities and then marketing and distributing the end products.

We offer the following comments on the proposed Sewage Sludge Management Regulations:

47-38D-2 Definitions

2.21 For clarity purposes, the definition of "Importer" should be revised to read "means any person bringing in or receiving sewage sludge from any source outside the State of West Virginia for the purpose of processing."

2.44 "Stabilization" - This term should be deleted from the proposed regulations since 40 CFR Part 503 does not specifically address stabilization but rather lists pathogen and vector attraction reduction requirements. Also biosolids can be stabilized by other methods than the decomposition of organic matter (e.g., lime stabilization).

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Bio Gro Systems, Inc. • 180 Admiral Cochrane Drive • Suite 305 • Annapolis, Maryland 21401 • (410) 224-0022 • Fax (410) 224-0152

3.2 Sewage Sludge Land Application Siting Restrictions and Location Standards

Overall Comment:

To be consistent with 40 CFR Part 503, this section should contain wording that these requirements do not apply to sewage sludges or products derived from sewage sludges which meet the pollutant concentrations in 503.13(b)(3), the Class A pathogen requirements in 503.32(a), and one of the vector attraction reduction requirements in 503.33(b)(1) through (b)(8). EPA's justification for not imposing these types of restrictions is outlined on page 9328 of the Part 503 Preamble which states:

"The rationale for not imposing the general requirements and management practices on bulk sewage sludge and sewage sludge sold or given away in a bag or other container for application to the land is that the sewage sludge that meets the three identified quality requirements is a valuable commercial product. Because of this, EPA concluded that the probability of improper application of the sewage sludge is low and the additional requirements are not necessary to protect public health and the environment. In addition, the Agency determined that over-application of the sewage sludge will not occur because over-application reduces crop yield, which nullifies the main reason to apply sewage sludge to the land in the first instance. The Agency concluded that when the sewage sludge meets the three quality requirements, it is a fertilizer material and should be treated similarly to other fertilizers."

The proposed rule offers no incentives for producers to improve their sludge quality and further reduce the pathogen content of their sludges.

3.2.1.a. This sentence should be amended to insert the words "of sludge" after the word "runoff" since runoff in itself may occur without the actual transport of sludge.

3.2.1.b. To be consistent with the federal regulations [503.14(b)] and simplify the number of standards being imposed, we suggest the buffer zone be changed to 33 feet (10 meters).

"Lakes" should be added to the list of surface water features. The language "or other collection points for surface water" is subject to wide interpretations and should be deleted from the regulations. Specific

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buffer zones for other features should be listed in the regulations. We suggest the following:

Intermittent streams/sediment and erosion control ponds - 25 ft.
Agricultural drainage ditches with adjoining land slopes $\leq$ 2% - 10 ft.
Agricultural drainage ditches with adjoining land slopes $\geq$ 2% - 25 ft.

3.2.1.f. This provision should be revised to read "Land within 100 feet of an adjacent property owner's property unless the adjoining landowner consents in writing to a reduction or waiver of this requirement." This is a common practice in many states as it helps reduce the area of a farmer's field which must be fertilized with other materials if the adjoining property owner does not object to application closer to their property line. The current provision would also negatively impact two adjoining farmers who are both having biosolids applied to their property.

3.2.1.g. This requirement is too broad. A specific buffer zone to sinkholes such as 50 feet as required by Virginia regulations should be established rather than totally prohibiting land application.

General Many states allow reductions in buffer zones if biosolids are injected or surface applied and incorporated the same operating day since these operations minimize the potential for runoff and address aesthetic concerns. For this reason we suggest the following wording be added to this section of the regulations: "The stated buffer zones to adjacent property boundaries, roadways, surface waters, and drainage ditches may be reduced by one-half (50%) for subsurface application (includes same day incorporation)."

To add flexibility to the regulations, the Department may also want to consider including the following language regarding buffer zones: "The Department has the authority to increase or decrease the stated buffer zones based on site specific features." For example, this would allow the use of biosolids to establish vegetation on highway construction or reconstruction projects.

3.2.1.h. This requirement should be revised to read "Land that has been tested and determined to have a pH of less than 5.5 unless the sludge which will be applied contains sufficient lime to raise the soil pH to a

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level of 5.5 or greater." 40 CFR Part 503 does not contain pH adjustment requirements because the metal loading limits are designed to be protective even under acid soil conditions. We support a minimum pH level of 5.5 because levels less than this is a poor agronomic practice.

3.2.1.i. This requirement should be revised to read "Land that has a slope greater than 15% except as otherwise approved by the Department" since slopes greater than 15% may be encountered on reclamation projects and sufficient sediment and erosion control measures are used to prevent movement of biosolids into surface waters.

3.2.1.j. This requirement should be revised to read "Land that has seasonal high groundwater table less than 2 feet from the surface at the time of application" to clarify that these sites can still be used for biosolids applications during suitable periods of the year. Fields which contain soils with seasonal high water table conditions are currently farmed and fertilized in the State and therefore these sites should not be prohibited from receiving biosolids applications.

3.2.1.l. These limits may be appropriate for designing septic tank drainfields but should not be applied to the land application of biosolids since these are significantly different management practices.

This requirement also should be deleted from the regulations since 1) biosolids must be applied at rates not to exceed the nitrogen requirement of the crop to be grown, 2) biosolids have soil conditioning properties which help improve the tilth of both light (sandy) soils and heavy (clayey) soils and 3) biosolids are an organic (slow release) fertilizer. The state does not restrict farmers from farming these soils with commercial fertilizers and animal manures and therefore should not single out biosolids from being applied to these soils especially in light of the beneficial properties of this material. At a minimum, case-by-case approval of these sites should be allowed.

3.3.1.d.A. A provision to allow other types of liners (i.e., synthetic liners) should be included.

3.3.1.d.C. This requirement should be deleted since the design already provides sufficient protection through a concrete surface with a leachate collection network and a liner beneath the concrete.

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4.2.1.g. This requirement should be reworded to read "The content of heavy metals and pathogens as required by 40 CFR Part 503." This wording will define to the applicant the specific metals and pathogens which must be tested. Vectors should be deleted from this requirement since biosolids may attract vectors but they do not contain vectors. Other toxins would be covered under federal waste regulations and PCB regulations.

4.2.1.j. This requirement should be removed from this section (4.2.1.) and moved under section 4.2.2. since these requirements do not apply to land application sites.

4.2.2.b. Since a copy of these requirements were not included with the proposed rule, Bio Gro cannot provide comments on their applicability at this time.

4.2.3. Land Application Permit Requirements

Overall Comment:

To be consistent with 40 CFR Part 503, this section should contain wording that items a., c. through g., i., j., and n. do not apply to sewage sludges or products derived from sewage sludges which meet the pollutant concentrations in 503.13(b)(3), the Class A pathogen requirements in 503.32(a), and one of the vector attraction reduction requirements in 503.33(b)(1) through (b)(8). The reasons these restrictions should not apply were discussed earlier in our comments (see 3.2 Overall Comment).

4.2.3.d. An agreement between the preparer of the sewage sludge and the landowner should not be required unless the preparer is also the land applier. Individual agreements should be required between the preparer and the land applier and between the land applier and the landowner since these are the parties which have direct contact with each other. The sludge preparers responsibilities are clearly outlined by Federal law and do not need to be documented in writing with a third party (the landowner).

4.2.3.e. The requirement to describe "future" uses of the land application site should be deleted from the proposed regulations. "Future uses" of land are often unknown and the landowner will already be signing an agreement with the sludge applier which outlines his/her responsibilities to comply with access and cropping restrictions if biosolids undergoing Class B pathogen reduction are applied.

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4.2.3.g. This requirement should be dropped from the proposed regulations since past fertilizer applications only have relevance just prior to the growing season when the biosolids will be applied. In most cases, the information will be obsolete by the time the permit application is approved and the biosolids application is scheduled into the farmer's existing operation.

4.2.3.n. This requirement should be deleted from the proposed regulations. As noted in our comments above, 40 CFR Part 503 does not require pH adjustment prior to biosolids application or pH maintenance following biosolids applications. The cumulative metal loading limits required by the 503 Regulations are designed to protect human health, animal health and the environment even under acid soil conditions. In addition, biosolids applied metals have been shown to be less available over time. Although unnecessary, if any type of pH requirement is included in the state regulations, it should be only at the time the biosolids are applied which is the time when they are most likely to be available.

47-38D-5 General, Processing Facility, and Land Application Permit Requirements

5.1.1.a. The word "vectors" should be deleted since vectors are not contained in sewage sludge. Vectors should only be used in the context of vector attraction reduction requirements.

5.1.1.b. The frequency requirement for biosolids analyses should be no greater than monthly unless screening data shows a biosolids quality problem. The proposed regulations should also have a provision for decreasing the monitoring frequency down to the 503 requirements after the biosolids have been monitored for two years at the State required frequency.

47-38D-6 Fee Assessment

6.1. The words "and to cover the costs of future environmental remediation" should be deleted from the proposed regulations since it suggests future environmental remediation is likely or certain. On the contrary, Bio Gro has been unable to determine any environmental remediation problems which have been caused by regulated sewage sludge land application projects. The proposed regulations provide for environmental protection through biosolids testing and

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required field management practices. The federal regulations also include "Duty to mitigate" requirements which place the responsibility for remediation on the responsible party rather than the State.

6.2 The proposed regulations should clearly state that the funds will be used exclusively for the sewage sludge program.

6.3.1. For reasons mentioned in 6.1. above, this requirement should be deleted from the regulations.

6.3.2. The fee system should be established based on an evaluation of the anticipated costs of managing the sewage sludge program. Any funds not used should be set aside to pay for unanticipated costs and/or research to improve the sewage sludge program in the state. Finally, the fee system should be based on dry tons rather than wet tons to be equitable to producers of liquid sludges (many of which will be small treatment plants with limited funds available for payment of such fees). As noted earlier, the dry ton fee should be based on a realistic estimate of the costs of managing the sewage sludge program.

General Comment

Bio Gro Systems suggests that the newly adopted term "biosolids" be substituted for the term "sludge" when new West Virginia rules are issued. Enclosed is a guidance statement from the Water Environment Federation on the use of the term biosolids.

Bio Gro Systems appreciates this opportunity to comment on the proposed West Virginia regulations. If you have any questions about these comments, please contact us at (410) 224-0022.

Sincerely,

Jeffrey D. Faust

Jeffrey G. Faust
Research & Compliance Coor.

Bruce E. Bailey /kw

Bruce E. Bailey, CPSS
Project Development

kw:JGF078
cc: Jane Forste, Cal Miller, Bob Pepperman, Bio Gro Systems, Inc.

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Water Environment Federation
Formerly Water Pollution Control Federation

GUIDELINES FOR DETERMINING USE OF WORD "SLUDGE" OR "BIOSOLIDS"

The following guidelines, developed by the Biosolids Public Acceptance Task Force, are based on the biosolids policy approved by the WEF Executive Committee last January.

The Federation defines biosolids as "primarily organic solid product produced by wastewater treatment processes that can be beneficially recycled." The key words in this definition are "product," "wastewater treatment," and "beneficially recycled." The overall intent of the Biosolids Public Acceptance Task Force was to continue referring to untreated material (commonly known as raw sludge) as "sludge;" material that has been treated and made into a product that can be beneficially recycled would then be "biosolids."

A material is a biosolid if it meets U.S. Federal criteria for beneficial use. States can impose additional standards on biosolids.

If we look at a wastewater treatment process, anything within the treatment plant process leading up to the development of the product should be referred to as "sludge." Therefore, unless the material is a product, it would be characterized as sludge.

In a treatment plant, one might think of the following examples: Any pumps transferring untreated sludge would be referred to as "sludge pumps." A treatment plant process such as an activated sludge process would continue to be called "an activated sludge process" and produce sludge. An anaerobic digester would be treating sludge; however, the end product coming from the digestion process could be biosolids since it is a product that may be eligible for beneficial use. If dewatering follows such processing, it would be dewatering biosolids (e.g. a biosolids filter press or a biosolids centrifuge).

In taking the treated end product ready for beneficial use and putting it into a truck for distribution to land application, the truck would be referred to as a "biosolids truck." Likewise, any of the end uses would be considered application of biosolids such as agricultural application of biosolids or forest application of biosolids. One could even have the land filling of biosolids or incineration of biosolids.

When dealing with an untreated material (sludge) that is going through a composting operation, the operation would be a treatment facility handling sludge. However, the end product would be composted biosolids. If the composting was handling digested biosolids, it would be composting biosolids, and the end product would also be composted biosolids.

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JUNE 17, 1993

OFFICE OF WASTE MANAGEMENT, DEP
ATTN: BILL RHEINLANDER
1356 HANSFORD STREET
CHARLESTON, WV 25301

DEAR MR. RHEINLANDER:

The City of Elkins would very much like to comment on the Sewage Sludge Management Regulations, Title Number 47, WV Code 20-3F-2b. The proposed rule is very much in line with the Federal 503 Sludge regulations, although there are some discrepancies.

As a municipality, the City of Elkins main concern is with the Sludge Management Regulations is section 47-38D-6.3 Fee Assessment. According to the fees that are set in this section, a municipality is being taxed for land applying sludge. This cost will have to be place on the customer which does have an economic impact locally on the community.

If there needs to be a fee, it should be per dry ton of sludge. By placing a fee on the wet ton, the DEP is charging the city for water.

The City of Elkins hopes the State of West Virginia will take a look at this section of the proposed Sludge Regulations, and make the necessary changes.

Sincerely

Jimmy Hammond

Jimmy Hammond, Mayor

JDH/ llr

July 29, 1991

COMMITTEE MEMBERS:

I have completed the reading of your comprehensive and siting plans.

What rules and regulations will be in place before sewage sludge and compost is land applied to insure that they are disease free?

Has new technology eliminated the nauseating, permeating odor emitted when the sun heats land-applied sludge?

I believe residents living in close proximity to land being applied with sewage sludge should be notified in advance.

I believe air quality should be monitored around sludge applications and composting facilities.

Your efforts to reduce, reuse and recycle should become profitable; thereby enabling you to reduce the future costs of garbage disposal.

Thank you for reading and considering my comments for the public hearing of July 29th, 1991, and the public hearing of July 9th, 1991.

Mrs. Robert Prickett

Mrs. Robert (Mary Jo) Prickett

June 19, 1993.

Division of Environmental Protection
Office of Waste Management
Att: Bill Rheinlander
1356 Hansford Street
Charleston, WV. 25301

Reference to Title 47 Series 38 D, Sewage Sludge Management Regulations.

Comments for your consideration:

What method will be used to remove debris from Domestic Septage (2.19) before land application?

The odor was overwhelming for several weeks following the land application of sewage sludge from a distance greater than 2000 ft. I believe the distance between land application and an occupied dwelling (3.2.1.d) and the distance of property owners (3.2.1.f) should be increased.

I believe sewage sludge by weight (3.6.1) should be reduced to a maximum of 10% of the total weight disposed of at the landfill.

Are any costs to the users of sewage being considered, or do you foresee the fee assessment (6.3) passed on to the users by the producers of the sewage sludge?

Respectfully submitted,

Mrs. Mary Jo Prickett

Mrs. Mary Jo Prickett
Route # 2 Box 285
Morgantown, WV. 26505
(304)983- 2139.

Enc:1

Comments submitted to the Monongalia Solid Waste Authority at a Public Hearing on July 29. 1991.

3029 Greenbag Road • Post Office Box 852 • Morgantown, WV 26507-0852 • 304-292-8443 • Fax 304-292-1526

June 18, 1993

Office of Waste Management
Mr. Bill Rheinlander
1356 Hansford Street
Charleston, WV 25301

Re: Comments on the Sewage Sludge Management Regulations Title 47, Series 38-D

Dear Mr. Rheinlander:

The Morgantown Utility Board offers the following questions and comments to the above referenced regulations.

The "Fiscal Note for the Proposed Rule", shows no changes in personnel or services for the Division of Environmental Protection. The fiscal note also indicates that there will be no economical impact on any state, local, or group of citizens. Where are the personnel going to come from to administer, run, and do the inspection and sampling required by these regulations? If no additional personnel are required then why are there fees attached to the land application of sewage sludge? The proposed fee structure will surely have an economic impact on the citizens who own a WWTP that land applies its stabilized sludge.

2.41 By the regulations definitions, all WWTP's that process sewage sludge, and all WWTP do process sludge, are now classified as solid waste facilities. Does this mean that all WWTP's must now comply with all solid waste facilities regulations?

3.2.1.1 Addresses soil permeability. This criteria would make sludge additions to strip mine areas, many are old and abandoned, very difficult. Typically these sites have little or no top soil, and very sparse vegetation. Permeability is most likely very high and would not meet the regulation's criteria. Sludge addition to these areas would only benefit these areas by supplying nutrients and organic matter which would increase the soil moisture retention. How is soil permeability to be measured? Is this to be run on every site? Will the DEP be running this test?

4.1.2 There are many facilities that produce sludge and are not POTWs. These include small package plants that are privately owned. Are these facilities exempt from these regulations, or must they also comply? Most of these small installations have septic haulers who remove the accumulated sludge. Are these haulers then going to be made to comply the with these regulations?

4.2.2 Some WWTP's accept sludge for processing from other sources, small package plants, septic, etc. Are these WWTP's then required to comply with the stipulations of Section 4.2.2?

6.2 Specifically, what is the Water Quality Management Fund? How is it to be used? How are we to be assured that this revenue source will only be used for its specific purpose?

6.3.1 Specifically, what is an environmental remediation fee? How is it to be used? How are we to be assured that it will be used for its specific purpose? Why are POTWs with pretreatment programs required to pay 100% more than those without pretreatment programs? Why are POTWs with pretreatment programs discriminated against? We feel that there is more of a risk of unsuitable sludge being land applied from a WWTP, or other source without a pretreatment program. WWTP who conduct a pretreatment program monitor and control those fractions of undesirable constituents of the sludge, where as nonpretreatment PTOWs do not control and may not even monitor their sludge.

6.3.2 How is the fee of $2.50 per wet ton derived? What benefits are the WWTP's getting for this fee? Are WWTP's that land apply liquid sludge also to pay this fee on a wet ton basis? What is meant by wet ton? A more logical method would be to use a dry ton basis.

General Comments to the Regulations:

Although the purported reason for these regulations was to exert some control of out of state sludge from being disposed of in West Virginia, these regulations fall far short of that intent. These regulation will without a doubt be a great burden to all in state WWTP who land apply their sludge. WWTPs have developed a land application, most without help or guidance from the DEP, in response to extremely high cost of land filling, and in accordance with the Federal EPAs policy of beneficial reuse of the sludge. Solids handling and disposal is without a doubt the most costly aspect of wastewater treatment. The proposed regulations and fees will only add to these costs. It is also factual that land application is the most ecologically sound disposal option for sludge management. Land application is also in most cases the most economical solution to sludge disposal . WWTP who land apply have been able to keep the cost of wastewater treatment down by land applying. This fee that is proposed will to a large extend nullify these cost savings and will have to be passed on the users of the WWTP.

At Morgantown, the Utility Board has operated a permitted land application program since 1986. This has been a very safe and well run program. Morgantown was one of the first in the state to develop a full sludge land application program. We have worked with the WVU Extension Service, and our local extension agents to develop a very well run, cost effective, and comprehensive land application program. These proposed rules will have very little influence on our program. The proposed fees will cost the taxpayers between $20,000 and $25,000 annually. This will be a significant cost increase in our WWTP operation, and will not benefit the Utility Board or our users, in fact they will only serve to increase the users sewer bill. The Utility Board formally request that these proposed fees be deleted from the proposed rules for those WWTPs which land apply.

Yours very truly,

MORGANTOWN UTILITY BOARD

Thomas E. Urquhart
General Manager

TEU/bap

Sanitary Sewer Board
City of Fairmont
P.O. Box 1428
Fairmont, WV 26555-1428

Phone (304) 366-0540
Fax (304) 366-6242

June 18, 1993

WV Dept. of Environmental Protection
Office of Waste Management
1356 Hansford Street
Charleston, WV 25301

Attn: Bill Rheinlander

Dear Mr. Rheinlander:

The Fairmont Sanitary Sewer Board would like to offer the following questions and comments regarding the proposed Sewage Sludge Management Regulations Title 47, Series 38D:

(1) We concur with all comments submitted by Mike Johnson by letter of June 3, 1993 (copy enclosed) and offer the latter comments in addition.

(2) Economic impact will be realized from the rule particularly to the public at large. The financial burden for the City of Fairmont will be approximately $13,000 - $15,000 per year.

(3) What is the financial need to implement the proposed rule? How will these funds be utilized specifically?

(4) How much revenue is expected to be generated under the proposed fee structure? If available, exactly how was this figure calculated?

(5) Fees should be levied strictly on a dry mass basis. Fees levied on a wet mass basis places an undue and unequitable burden on some municipalities. A prime example would be a liquid sludge application program.

(6) What is the logic that produced a fee for wastewater plants with pretreatment programs that is double those with no pretreatment program? Facilities with pretreatment programs already incur a major financial burden to have harmful pollutants removed from the waste stream at the source as well as stringent analytical monitoring to verify the quality of the bioresiduals.

(7) Can these fees be passed directly to our users without rate modification approval from the Public Service Commission?

Respectfully submitted,

Bruce McDaniel
Utility Manager

cc: Douglas Amos

292-1526

DEPARTMENT OF COMMERCE, LABOR & ENVIRONMENTAL RESOURCES
DIVISION OF ENVIRONMENTAL PROTECTION
617 Broad Street
Charleston, WV 25301-1218

Gaston Caperton
Governor
John M. Ranson
Cabinet Secretary

David C. Callaghan
Director
Ann A. Spaner
Deputy Director

MEMORANDUM

FAX TRANSMITTAL

To: GREG SHILLITO		# of pages 1	
Co. MUB		From: BRUCE McDANIEL	
Date 6/8/93		Co. Sanitary Sewer Board	
Fax # 292-1526		Phone # (304) 366-0540	
Comments: FYI		Fax # (304) 366-6242	

TO: Richard Cooke, Assistant Chief
Office of Waste Management

FROM: Mike Johnson, P.E., Assistant Chief
Construction Assistance Programs

DATE: June 2, 1993

SUBJECT: Comments on Sewage Sludge Management Regulations, Title 47, Series 38 D

We offer the following comments and recommended changes to the above-referenced regulations:

2.5 For sewage treatment facilities regulated under §20-5A, "Chief" should mean the chief of the Office of Water Resources.

2.12 Are sewage treatment plants, especially POTW's that treat septage or sludge produced by other POTW's or package treatment plants considered to be a "Commercial Solid Waste Facility"? If so, why?

2.25 Are sewage sludge land application sites considered to be landfills?

2.42 POTW's and other domestic sewage treatment facilities should be regulated under §20-5A and not under §20-5F, because this results in duplicative regulation. Will all new POTW's or privately owned domestic sewage treatment facilities be required to obtain a Solid Waste permit, and the approval of the Public Service Commission Solid Waste Division, in addition to an NPDES permit and a PSC Certificate of Convenience and Necessity for sewer facilities? Will solid waste siting requirements apply to POTW's?

3.2.1.h. Why can't sewage sludge be applied to soils with a pH of less than 6.2, since metal contaminants are already limited in the sludge being applied, and since the organic matter acts as a buffering agent and results in the soil pH being increased without lime addition?

3.3.1.c. This requirement cannot be met. Virtually all POTW's are located in the 100 year flood plain. Requirements should be the same as for the liquid-stream operations, which means the facility must be operational at the 25 year flood and protected from damage at the 100 year flood.

This, however, is in no way "...prevent(ing) the encroachment of flood waters upon the facility." This requirement would mandate floodwalls to be built around almost every existing and future sewage treatment facility, a requirement that will be physically impossible to construct in many places and extremely expensive at every location.

3.3.1.d. What is the precise and explicit definition of "land surface"? Does this definition include sludge drying beds (both conventional sand beds and synthetic media beds) that have here-to-fore been lined with a single layer of either 20 mil synthetic liner or 6 inches or more of reinforced concrete? Does it also include the sludge storage sheds that are located adjacent to sludge drying facilities, and are concrete lined and covered? Does it include concrete-floored composting buildings? Are other sludge handling facilities (belt press buildings, digestors, etc.) required to be similarly lined?

Current design practice is to provide either a concrete or synthetic liner under all sludge processing and storage areas, and to direct all drainage and process water that could possibly be contaminated back to the head of the liquid processing stream. Requiring a 2 foot clay liner in addition to a concrete cap will complicate design and construction and drive costs of buildings and other facilities up considerably, and provide little, if any, additional protection to the public or to the environment.

3.4.1. Refer to 3.3.1.d., above. Within the confines of a POTW, where all contaminated water is sent back to the head of the liquid process stream, no additional monitoring or treatment should be required, and such water should not be considered leachate.

4.1.2. POTW's are not the only facilities that exclusively treat domestic sewage, since package treatment plants serve a large part of our citizenry. All of these domestic or municipal sewage treatment facilities should be regulated through the NPDES permit.

4.2.2. Are those POTW's that occasionally accept and treat septage and/or sewage sludge produced by other POTW's or private, domestic facilities (i.e. package plants) exempt from this provision also? A significant number of POTW's currently provide such disposal services, but many may refuse if a separate solid waste permit is required. Since sludge produced by the septic tanks and package plants must be taken somewhere else for final disposal, a blanket exemption to this provision should be granted to all sewage treatment facilities regulated under the NPDES permitting system. Otherwise, the result will be a complete duplication of the existing NPDES process, with its attendant submittals and review effort. These requirements appear to apply to true solid waste facilities (i.e. commercial composters, landfills, etc.), and not to domestic wastewater treatment facilities.

4.2.3.a. Soil tests currently done by the WVU Extension Office do not include nitrogen testing. Nitrogen testing is accomplished by tissue analysis and other, non-soil, tests. How is nitrogen to be analyzed?

242-1526

DEPARTMENT OF COMMERCE, LABOR & ENVIRONMENTAL RESOURCES
DIVISION OF ENVIRONMENTAL PROTECTION
617 Broad Street
Charleston, WV 25301-1218

Gaston Caperton
Governor
John M. Ranson
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Deputy Director

MEMORANDUM

FAX TRANSMITTAL

To: GREG SMALLEY		From: BRUCE MCDANIEL	# of pages 1
Co. MUB		Co. Sanitary Sewer Board	
Date 6/8/93		Phone # (304) 366-0540	
Fax # 292-1526		Fax # (304) 366-8242	
Comments: FYI			

TO: Richard Cooke, Assistant Chief
Office of Waste Management

FROM: Mike Johnson, P.E., Assistant Chief
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DATE: June 2, 1993

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4.2.3.a. Soil tests currently done by the WVU Extension Office do not include nitrogen testing. Nitrogen testing is accomplished by tissue analysis and other, non-soil, tests. How is nitrogen to be analyzed?

5.1.1.g. All reporting should be included on the DMR's submitted by the treating facility. Does this also mean that all facilities must now submit DMR's monthly (I certainly hope so!).

6.1. How are fees to be assessed, and when are they due? What are the penalties for non-payment?

6.2. What specifically are the fees to be used for?

6.3 What is the definition of "wet ton"? How will facilities that do not currently dispose of sludge be billed?

cc: L. Eli McCoy, Chief
Clifton Browning
Jerry Ray
Pravin Sangani

Sue Maguire
Rt 1 - Bx 48
Auburn, WV 26325

June 22, 1993

Division of Environmental Protection
Office of Waste Management
1356 Hansford St.
Charleston, WV 25301
Attn: Bill Rheinlander

Comments on Sewage Sludge Management Regulations May 24, 1993-The proposed rule doesn't contain the necessary means for implementation of a comprehensive program for the regulation of sewage sludge mandated in WV code 20-5F-2b
pg. FISCAL NOTE FOR A PROPOSED RULE: 2.-There should be specific reference to enforcement of the rule for the state and on a county level.

4.B.1-The WVSWNB may be asked for grants to establish facilities.

B.2-Sewage sludge processing facilities will profit from importing sludge.

B.3-A certain volume should require a liner: not making operations cost prohibitive for POTW's.

C.-Public health and safety concerns could have great economic impact with the potential of pollutants being introduced into the environment.

pg.4; 2.28-There is a ban of municipal solid waste incineration in WV which includes sludge. delete definition

pg.5; 2.36-delete "incineration"

pg.7: 3.2-The standards are not strict enough to discourage large quantities of sludge from coming into the state. Especially when other states have stricter standards than 40 CFR, 503.

pg.8: 3.3.1.a-add "and air." after surface water

3.3.1.d.E.-add "unbiased" between professional/engineer

pg.12: 4.2.2.c.E.-add, a certain time limitation on storage

pg.13: 4.2.2.e.I.-add, actual weights

pg.14: 4.2.3.1.-add "describing the contents of effulent and all treatment thereof" after information

pg. 16: 5.4-delete, Subpart E-Incineration, 40 CFR,503. New solid waste facilities are prohibited from utilizing incineration technology.

pg.19: Appendix A-add, A monitoring system for material in route to a processing facility. Each truckload should be required to have a manifest showing location and time of travel. This will provide documentation of the material to help prevent contamination by illegal dumping of toxics into the sludge.

CITY OF BUCKHANNON

WEST VIRGINIA

26201

CORNER MAIN AND FLORIDA STREETS
BUCKHANNON, WV 26201

TELEPHONE
(304) 472-1651
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FAX # (304) 472-4620

June 22, 1993
DEPREGS1

Mr Bill Rheinlander
Office of Waste Management
Division of Environmental Protection
1356 Hansford St
Charleston, WV 25301

Dear Bill:

This letter is being sent to make comment on the proposed rule "Sewage Sludge Management Regulations" Title 47, Series 38D. The comments are as follows:

1. The "Fiscal Note for a Proposed Rule" states that there will be "No Impact" on the "Overall Economic Impact of Proposed Rule." There certainly will be an economic impact on the City of Buckhannon if we have to build and operate additional sewage sludge processing facilities in order to comply with these regulations.

2. Throughout the regulations, it is not clear if there is a distinction between sewage sludge processing facilities which are part of an sewage treatment plant, and those which are operated as solid waste disposal facilities. Definition 2.14 defines a "Composting Facility" as "any solid waste facility processing solid waste by composting . . . but does not include a facility for composting solid waste that is located at the site where the waste was generated" (ie. sewage treatment plant?). The definition for a "Sewage Sludge Processing Facility" (No 2.36) does not seem to make a distinction, but calls it "a solid waste facility" and lists processes that are commonly found at sewage treatment plants.

Section 4. PERMITS REQUIRED identifies conditions where a person must obtain a solid waste facility permit and other conditions where an NPDES Permit Modification would be required. It is not, however, clear whether the NPDES Permit is instead of, or in addition to, the solid waste facility permit.

Buckhannon –The promise of tomorrow with the dignity of yesterday

Further on in Section 4.2.2 "Sewage Sludge Processing Facility Permit Requirements" there is a list of 32 items required in a permit application "except facilities located at the site where sewage sludge is generated" (ie. sewage treatment plant?).

It seems that some further clarification of the applicability of the regulations is needed and then consistency regarding applicability is needed throughout the regulations. If the same rules, regulations, application requirements, etc apply to both solid waste facilities and sewage treatment plants, but they are administered by different DEP Sections, could these rules identify/explain that situation?

3. Section 3.3.1.d presents requirements for liners under a sewage sludge processing facility. These facilities include by the definition No 2.36, composting, lime stabilization, thermophilic digestion, and anaerobic digestion. These liner requirements seem to be extraordinarily severe and inflexible. The named processes and many other sludge treatment facilities such as decant tanks, sand drying beds, vacuum drying beds, belt presses, and centrifuges, have routinely been built at sewage treatment plants without liner systems. Have these facilities proved unsatisfactory? No complaint has been made about the sludge treatment facilities at the Buckhannon plant. Will all new sewage treatment plants be required to have liners? Again as was discussed in comment #2, is there purpose in a solid waste compost facility having a liner and a sewage treatment compost facility not having a liner.

It seems that certain types of facilities and some kinds of construction may need liner protection, but that it is not a universal requirement of all sewage sludge treatment facilities.

4. Section 6.3 "Fee Assessments" identifies fees the state will impose on generators and processors of sewage sludge. If Buckhannon continues to land apply sludge, the fees at $3.00 per wet ton would be approximately $6,000 per year, and if we have to landfill the sludge, it will be $17,000 per year. These seem to be very high fees for a system serving 3,100 customers and probably requiring construction and operation of new facilities to meet the regulations.

It is also hard to understand why wet tons of sludge was used as the basis for the fees. The moisture content of the

sludge is dependent on the type of treatment process, the type of sludge drying process, the effectiveness of the drying equipment, and operator performance. Dry weight provides an common denominator to provide a more uniform charge to all systems whereas the wet weight seems to penalize systems whose drying processes are not as effective and/or whose ultimate disposal methods do not require a high solids content.

Thank you for the opportunity to present these views on the proposed rules.

Very truly yours,

Samuel S Ludlow

Samuel S Ludlow, PE
City Engineer

cc: Mayor Gum
Burl Long
Clifton Browning

SIERRA CLUB
WEST VIRGINIA CHAPTER
P. O. Box 4142
Morgantown, WV 26504

June 23, 1993

Office of Waste Management, DEP
Attn: Bill Rheinlander
1356 Hansford Street
Charleston, WV 25301

Dear Mr. Rheinlander:

Please accept the following comments on the Title 47, Series 38D rules titled Sewage Sludge Management Regulations. I am writing on behalf of the 1200 members of the West Virginia Chapter of Sierra Club. Additional comments will be submitted by other members and should be considered in addition to those below.

In general, we do not believe that these rules come anywhere close to the legislative intent expressed in Senate Bill 288. Furthermore, they appear to be in violation of the legal requirements for promulgating emergency rules and may be unconstitutional as well. We urge that these rules be withdrawn until rules that meet both the intent of the legislation and constitutional requirements are developed.

1. The fiscal note attached to these rules is in error. To conclude that no fiscal impact will be created is clearly contradicted by the fact that these rules create a new permitting requiorement with requirements for record keeping and review of monitoring data. The rules also establish a serious financial liability for the state which should be considered in assessing the fiscal impact. Finally, the rules assess new fees on the targeted industries to pay for this program. While the impact on citizens may be positive overall, obviously, the fees will create an impact on the regulated industry. While we applaud that impact as needed to regulate those facilities, it should be properly described in this section.

2. Section 1.5 Incorporation by Reference. This provision is very troublesome because it contradicts basic tenets of the regulations. The Legislature fully intended to create a regulatory program that goes beyond the minimal federal statutes. Yet this section clearly places these contradictory provisions into the state's rules. Even worse, these specific federal regulations are not reproduced herein, thus creating a difficult and unwieldy process for defining exactly what the rules are. This section must be deleted and the relevant rules and standards reproduced in these rules. In fact, it is for this very reason that the rules may be unconstitutional. If the relevant provisions are not in these rules, noone knows exactly what rules are being approved.

3. Section 2.8-2.10. The definition of Class A, B, and C Sewage Sludge Processing Facilities grossly distorts the needs of West Virginia's sludge handling capacity. The entire state population does not produce 30,000 tons per month, yet these regs would allow individual facilities that large. They clearly seem designed to legalize existing facilities, rather than regulate the large sludge importing operations that aroused the need for SB 288 in the first place. The size limits on these facilities needs to be reduced by at least a factor of five.

4. Section 2.31 "Pretreatment Publicly Owned Treatment Works". This appears to be the only distinction the rules make among sludges "according to ... the contaminat level of the sewage sludge" (20-5F-2b, paragraph 12). Since this definition refers to a part of federal regulations not further defined in these rules, it is impossible to know who would be covered under such a definition, how it relates to the contaminant load of the sludge, or how the fees described in Section 6 are to be assessed.

This issue is crucial to the success of these rules. The legislation intended to assess higher fees on sludges with high contaminant levels than on sludges that are relatively clean. This would provide a clear incentive to reduce the levels of pollutants in the sludges, thereby assuring that their land application can be achieved without environmental risk.

We believe that, instead of basing fees on a pretreatment vs. nonpretreatment basis, the fees should be based directly on the measured contaminant levels. Categories of sludges should be established based on these contaminant levels, with land application of sludges restricted or prohibited for categories with high contaminant levels. The cleanest category of sludge would have contaminant levels equivalent to background soil levels and would be available for unrestricted use on food crops, lawns, and other facilities where the public could be exposed. Sludges in this category, by their very nature, would be exempted from lifetime soil loading restrictions and other rules and could be distributed essentially as a fertilizer. This minimal regulatory burden would encourage POTWs to clean up their sludge, thereby reducing the overall pollution load to the environment. Categories with higher contaminat levels would be subject to fees, lifetime soil loading rates, and other regulatory requirements needed to assure that beneficial uses really are beneficial to the environment.

5. Section 3.1. In addition to the state constitutional questions cited above, federal regulations 40 CFR part 503 are an inadequate basis for developing these rules. The restrictions in Part 503 were weakened well beyond what is scientifically credible by then-Vice President Quayle's Council on Economic Competitiveness. To base West Virginia's sludge program on these rules is not just counter to SB 288, it is down right embarrassing.

6. Section 4.2.1.g. In addition to providing the information required, language should be added to require that these data are available on the sludge BEFORE it is disposed or land applied. This information would be required to assess the appropriate fees and to define the proper sludge category to assure that it is properly disposed of. In this way, sludges that can be used for beneficial uses would be available for those uses, while sludges with higher contaminant loads would be prevented from contaminating cleaner sludges.

7. Composts which utilize sewage sludge should be pathogen-free. These rules should be amended to add that requirement to any compost not disposed of in landfills. Composting is a time-honored beneficial practice, but unless properly managed, can result in unsafe materials. These rules must be adequate to assure that compost prepared for distribution in the environment be safe enough to retain the good reputation of the term 'compost'.

8. Section 4.2.3.a. Soil analysis for land application sites must include analysis for heavy metal content. Without this analysis, these rules virtually guarantee that lifetime loading rates will result in metal concentrations exceeding safe limits. The rules should be intended to prevent, rather than guarantee this result.

9. Section 4.2.3.n. For mineland reclamation sites, procedures to maintain soil pH above 6.2 should be increased to 30 years, and monitoring reuirements and bonding requirements should be added to assure that this is done. Contrary to agricultural sites, sludge additions to minelands will likely be one-time disposal actions rather than on-going soil improvement actions. Thus there will be a strong incentive for disposers to dump as much sludge as cheaply as possible and then "walk away" from such sites. The history of the coal industry provides substantial evidence of this practice at these sites and the rules must recognize this continuing history of behavior.

10. Section 6. Fees. The fees described herein are an essential part of the regulatory process. They are however, inadequate to meet the intent of the bonding language of SB 288. Without bonding language adequate to assure environmental remediation, and with the provisions allowing land disposal of sludges with high levels of contaminants, the state is creating a huge financial liability under these rules. The history of the state's mine reclamation funding and bonding inadequacies should provide plenty of evidence of the fiscal dangers that this program could create. While the fees are necessary, bonds for highly contaminated sludge applications are even more necessary.

11. Appendix A. The frequency of monitoring may be appropriate for very small facilities such as those constituting the majority of West Virginia's POTWs, however it is grossly inadequate for facilities that import large amounts of sludge. These are the

very facilities that could create environmental catastrophes by importing highly contaminated sludges. Monitoring data should be required for every load BEFORE it is unloaded. Requirements for sending back to the originating location those loads that exceed contaminant levels should be added.

The Sierra Club does not seek to halt truly beneficial uses of sewage sludge, in fact, we encourage them. However, the public trust demands that beneficial uses are properly managed so that they do not become environmental abuses. These rules should be rewritten to assure that goal.

Sincerley,

James Kotcon

James Kotcon, Chair
594-3322 (h) 293-3911 (o)

cc:
Del. Brian Gallagher
Sen. Joe Manchin
Ken Hechler, Secretary of State

West Virginia Farm Bureau

Member of American Farm Bureau Federation

1 Red Rock Road, Buckhannon, WV 26201

304/472-2080

June 23, 1993

Dave Callaghan, Director
Division of Environmental Protection
10 McJunkin Road
Nitro, WV 25143-2506

SEWAGE SLUDGE MANAGEMENT REGULATIONS
TITLE 47 - SERIES 38D

My name is Steve Hannah, Executive Secretary of the West Virginia Farm Bureau.

The West Virginia Farm Bureau would like to make the following comments on the above mentioned regulations. Asel Kennedy, Monongalia County Extension Agent, John Scott, Jr., Mercer County Extension Agent, and Charles Via, Environmental Engineer Service of the Sanitary Board of Bluefield, assisted in preparing these comments. All of these gentlemen have extensive experience in land application of sewage sludge.

3.2 Sewage Sludge Land Application Siting Regulations and Location Standards

3.2.1.c. - Recommend that this be amended as follows:
Land within 200 feet of an existing drinking water supply wells or other personal water supply. This would particularly apply to adjoining property owners. It would cause them to give consideration as to the placement of drinking water supplies.

3.2.1.f. - It is recommended that this provision be deleted from the regulations. There is no indication that the material moves in the soil once the material is applied.

3.2.1.h. - It is recommended that the following provision be added. Provided that the lime neutralizing effect of the sludge being applied must be taken into consideration.

This is particularly true of sludge that has had alkaline treatment. This treatment could cause the sludge to have a pH of 12 or more.

With application of this type of sludge, the pH of the land could be increased to over 7.0.

3.2.1.c. - It is recommended that the 15% slope be changed to 20% slope. Again, there is no indication that this material moves once it is applied. The 15% limit would also cut down considerably on land that could be used for sludge application.

3.2.1.k. - It is recommended that his provision be deleted, or at the very least, reduce this to 4 inches.

There are very few soils in WV that do not have a "hard pan" at much less than 20 inches. This provision would severely limit the land that sludge could be applied. Most land with 20 inches of soil is located in a flood plain, which eliminates land application.

3.2.1.11 - It is recommended that this provision be deleted. This provision would in all practically eliminate the use of sludge on reclaimed surface sites. Materials used in reclaimed sites are not always consistent. The organic matter in sludge is a very important ingredient, particularly in reclamation sites.

3.2.3. - It is <u>strongly</u> recommended that this provision be amended to read " . . . as to exceed the agronomic rate or a rate of seven dry tons per acre, per year, which is less."

This seven dry ton limit should also apply to reclaimed surface mine land. As previously mentioned, the soils in reclaimed land is very inconsistent and many times very porous.

4.2. - General, Processing Facility, and Land Application Permit Application Requirements.

4.2.1.h. - It is recommended that this section be deleted, particularly as it applies to land application.

The sites that sludge will be land applied may or may not be known at the time the permit is applied for. Additional sites may also be used throughout the permit period.

The capacity of each site may also vary according to the agronomic rate.

The permit also requires that accurate records be maintained on each land application site.

4.2.3. - Land Application Permit Application Requirements.

Recommended that this section be amended to read: "Sewage treatment facilities utilizing land application of sewage sludge . . ."

This would make it clear that it is the responsibility of the facility to submit the information, not the person who may be actually applying the sludge to his own land.

4.2.3.a. - It is recommended that the analysis for nitrogen be deleted.

The agronomic rate should be used as the limiting factor as is pointed out in 40 CRF, Part 503. "Quick" nitrogen analysis are not readily available, and the normal testing procedure takes too long.

4.2.3.c. - It is recommended that a provision be inserted that would not require soils maps on reclaimed mine sites. The maps are simply not available for these sites.

4.2.3.e. - It is recommended that the provision for future use of the land be deleted. This information would be pure speculation on everyone's part.

4.2.3.g. - It is recommended that this provision be deleted. The soil analysis as required in 4.2.3.a. would indicate past fertilizer practices, and would be a more accurate indication of the condition of the soil.

4.2.3.h. - Extreme care must be used in implementing this provision. It is dangerous to give anyone a "blank check". This provision should also indicate who would pay for the additional test required.

4.2.3.i. - It is recommended that the words "for spreading and incorporating" be deleted, and the words "of application" be inserted. All sludge is not incorporated.

4.2.3.n. - It is recommended that the words "by the applicant" be deleted.

The landowner and cooperating state and/or federal agencies must take the responsibility to see that the proper pH is maintained.

5.1 - General Permit Requirements

5.1.1.a. - The WV Farm Bureau has been concerned over the years' in the number of times the sludge has been monitored. We would like to complement the Division for increasing these monitoring requirements.

6.1 - Fee Assessment

It is strongly recommended that the words "and to cover the costs of future environmental remediation" be deleted.

The act that authorizing these regulations 20-5F-2b(12) says in part that the fees be "sufficient to cover the cost of the sewage sludge management program".

20-5A-6a(b) Water Quality Management Fund indicates that the funds placed in this special account shall be expended for the review of initial permit applications, renewal applications and permit issuance activities.

Neither section of the code indicates that these monies can be used for remediation.

6.3.1. - It is strongly recommended that fee established by this section be based on DRY ton basis.

All reference to land applications of sludge in these regulations use dry tonnage. The news release from the DEP indicated that publicly owned waste water treatment plants in WV generate about 50,000 dry tons of municipal sewer sludge per year.

A quick summary of five treatment plants shows that the percent solids varied from 1.2% to 30.5%. It would be extremely unfair to base these fees on a wet basis.

It is reasonable to believe that these exorbitant fees would be passed on to the consumer.

These regulations do not address the issue of management of the land application of Sludge Program. The West Virginia Farm Bureau recommends that the WVU Extension Service be the agency that manages the program.

The Extension Service has a long standing educational program in working with farmers. The extension agents that have been working with the program in the past have done an excellent job. They have the expertise in soils and plants to maintain a viable and safe program.

We would also recommend that the DEP have one person to act as a monitor of the program. This person could do spot checks and also use enforcement procedures if necessary.

Thank you for the opportunity to make these comments.

Title 47, Series 38D
Sewage Sludge Management Regulations
Comments for Public Hearing, June 23,1993

3.2.2. The attached spreadsheet illustrates the requirement that before land application of sewage sludge, the soil must be tested to determine the total concentrations of the metals listed. These values are then used in conjunction with the concentrations of the same metals in the sludge to be applied in order to determine the maximum amount of sludge which can be applied before a maximum soil pollutant concentration is reached.

The maximum soil concentrations were determined by taking the values given in 40 CFR 503.13(b)(2) and dividing by the amount of soil in one hectare. All calculations based on dry weights.

$$\text{metal concentration} = \frac{\text{Cum. loading rate, Kg/H}}{1 \times 10^8 \text{cm}^2/\text{H} \times 51 \text{ cm} \times 1.4 \text{g/cm}^2}$$

$$\text{e. g.} \qquad \text{As} = \frac{41 \text{ Kg/H}}{7.14 \times 10^6 \text{Kg/H}} = 5.7 \text{mg/Kg}$$

Similar calculations are made for the other metals.

Once one has the concentration in the soil and in the sludge to be applied, the second table can be used to determine how much sludge may be applied. This is done by determining the remaining capacity for a given metal:

= Cum. load, Kg/H - (soil conc.,mg/Kg x 7.14)

Once the remaining capacity is determined, then one can determine the theoretical amount of sludge needed to be applied to reach the maximum allowable concentration:

$$= \frac{\text{Cum. load, Kg/H - (soil conc.,mg/Kg x 7.14)}}{\text{conc. in sludge, mg/kg x 1000}} \text{ metric tons/H}$$

Once the values for all the metal concentrations in the soil and the sludge are entered in columns B and C of the spreadsheet, the values of the theoretical amount of sludge to apply is given in column D. The smallest of these values is the maximum allowable, provide that other restriction do not limit the addition at a lower level, for example, the agronomic rate or the fifteen ton/ acre limit. If one of the values is negative, the

limit has already been reached and sludge cannot be applied.

The whole purpose of determining the metal concentrations in the soil makes the use 503.12(e)(2) unnecessary. The metal concentrations in the soil serve as a record of previous applications plus the natural levels. Thus maintaining records of applications are unnecessary. The soil tells the story upon analysis. In addition, its the concentration of these metals in the soil which is important, not what one thinks has been added with no knowledge of what was already present.

There are no requirements set forth for the analysis of the soil for these metals. This must be done to fulfill the intent of the law. Enough samples, at various locations, of the soil to which sludge will be applied should be taken so that they are representative of the area.

An additional point revolves around the actual allowable concentration in the soil. Since only limited knowledge and understanding of the adverse effects of these metals in the soil are known, it is best to err on the conservative side until more is known. Therefore, I would suggest lower limits for the cumulative loading rates be set under these rules than those given in Table 2 of 503.13. For example, Pennsylvania uses 68Kg/H for chromium. Zinc, while a crop nutrient also has crop toxicity potential and should be limited to 600 Kg/H., Copper is similar with a loading limited to 300 Kg/H. The effects of both these metals depend on the ion exchange capacity of the soil. For sandy soils the limits should be reduced accordingly. Nickel should be reduced some to 200 Kg/H. The West Virginia Extension Service has had a sludge program for a number of years and would be a valuable resource for setting these levels based on scientific fact and experience.

I would also be glad to lend my assistance in the further development and implementation of the land application rules.

Don Macnaughtan

Title 47, Series 38D
Sewage Sludge Management Regulations, 3.2.2

Cumulative Pollutant Loading Rate
Calculation of Concentrations in the ground which are not to be exceeded
Based on dry weights

1 Hectare = 1 x 10^8 sq cm
Soil depth = 20 in = 51 cm
Volume of soil = 5.1 x 10^9 cu. cm.
Density of soil (dry) = 1.4 g/cc
Weight of soil = 1.4 x 5.1 x10^9 = 7.14 x 10^9g/hectare

Maximum allowable concentration in soil =

Cumulative Pollutant Loading Rate, Kg/Hectare x 10^6
Weight of soil, Kg/hectare

(M), Kg/hectare x 10^6mg/Kg
7.14 x 10^6 Kg/hectare

TABLE I

Pollutant	503.13 Table 2 Cum. loading rate, Kg/hectare	Maximum allowable Concentration mg./Kg(ppm)	Table 4, Annual max. loading rate,Kg/H		
Arsenic	41	5.7	2		
Cadmium	39	5.5	2		
Chromium	3000	420.2	150	note:	68 Kg/H in
Copper	1500	210.1	75		or 9.5 ppm
Lead	300	42.0	15		
Mercury	17	2.4	1		
Molybdenum	18	2.5	1		
Nickel	420	58.8	21		
Selenium	100	14.0	5		
Zinc	2800	392.2	140		

TABLE II						
Calculation of maximum tonage of a given sludge appliable to a particular soil						
1. Enter metal concentration data in shaded area						
2. Smallest number in column D is maximum amount that can be applied						
A	B	C	D			
			Max sludge			
Metal	soil conc.	sludge conc.	possible			
	ppm	ppm	metric tons			
Arsenic	2	7	3817			
Cadmium	1	2	15930			
Chromium	250	136	8934			
Copper	36	1200	1036			
Lead	12	23	9318			
Mercury	2	1	2720			
Molybdenum	2	1	3720			
Nickel	8	23	15777			
Selenium	1	2	46430			
Zinc	350	1200	251	< Maximum appliable, provided		
				other limits do not apply		
			Negative number means concentration already			
			exceeds limits, this sludge cannot be applied			
			to this land.			
Values in column D = (cum. load - 7.14 x existing conc)/conc in sludge x 1000						

Comments re proposed Title 47,series 38D sewage sludge.

1.SB 288,now WV code in section 20-5F-2b-(b) specifically instructs the director to promulgate rules to regulate "the efficient and orderly regulation of **sewage sludge**".I therefore object to the proposed inclusion of composting of "mixed waste"(eg proposed 47-38D-1-1.1 and subsequent).Furthermore,I suggest that the composting of mixed waste be expressly prohibited,at least at this time."Mixed waste" is too general a term,and its inclusion is sure to promote abuses by the type of unscrupulous operator we have all come to know.

2.The composting of certain materials other than sewage sludge such as yard waste,farm waste,some wood industry waste should be specifically addressed as in some earlier versions leading to SB 288.

3.Should there be a storage time limit on section 2.15?This could lead to de facto dumping on the premises.

4.Section 3.3.1.a should include avoidance of contamination of air(odors,etc.)

5.Section 3.3 general.Although these requirements are fine for large,commercial installations,can't there be less elaborate requirements for (smaller),municipally owned sewage treatment plants for the composting of only their own sludge?

6.Section 3.6 revised to "...sludge disposed of in a landfill...".Is there legal significance of "in" vs."at"?

7.Section 4.1.5. Does this specify local SWA approval?

8.Section 4.2.2.a.A.What does "entire service area" mean?Is "collection area" a better term?Or "sewage producing area"?

9.Section 4.2.2.c.E. I believe this addresses a key point.My impression is that all these proposed composting facilities are going to create more compost than the market will require.

10.In general I believe there should be more differentiation between the use/disposal of raw sludge and composted sludge.Are they to be considered as equivalents?If so,not a good idea.

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Herbert L. Heiss

Mixed Waste Composting: Good Idea or Quick Fix Solution?

by Stephen Lester, CCHW Science Director

In the wave of enthusiasm for recycling programs that is sweeping this country, a number of unusual projects that offer to "compost" different types of waste keep coming up. These projects range from "composting" sewage sludge to full scale "mixed waste" composting that offer to "compost" household and industrial garbage following some minimal removal of components from the waste stream.

This process of mixed waste composting is often described as "dirty composting" and bears no resemblance to the spirit and intent of true composting. Mixed waste composting is considered dirty because garbage generated by households and commercial businesses is commingled, mixing grass clippings, plastics, all types of paper and cardboard, food waste, disposable diapers, styrofoam packaging, batteries and so on together. By doing this, the end product becomes contaminated with heavy metals, toxic organic chemicals and non-degradable plastics and as a result, is extremely limited and largely unusable.

The fundamental problem with mixed waste composting is that it offers a quick fix solution to a complicated problem. Garbage is picked up at the curb, the way it has always been done, taken to a plant where some of the waste is separated and the rest is "composted." Nobody has to change any of their habits, the existing waste pick-up and transport industry can maintain the status quo and the garbage problem "goes away."

But, as we are all learning, there is no "away." It was this type of quick-fix thinking that got us landfills and incinerators as "answers" to our garbage problems. We should learn from these mistakes and be wary of another "black box" solution. No system is as effective or efficient as up front source (household) separation.

The critical flaw in the process of mixed waste composting is the value of the end product. The end product of any composting process is only as good as what is NOT in the original waste stream. If there is paper with inks and dyes; if there are plastics and stabilizers which are not biodegradable; if there is household and industrial hazardous waste; if there are pesticides; if there is aluminum or other metals in the waste being composted, then all these materials will end up in the final "compost" product.

If this happens, no one will want the final "waste compost" and there will be no market for it. And when you commingle commercial and household garbage, when there is no source separation, no removal of known household and industrial hazardous and toxic waste, then there is no way to avoid these contaminants in the end product. They do not disappear simply because you call a process "composting."

Composting is a natural process that works best when biodegradable materials such as food, yard and wood waste make up the waste being composted. The key is to separate the organics from the inorganics. Once you start adding in all sorts of other waste materials, the quality of the compost goes down. And when toxic chemicals get in the compost, which is unavoidable when they are not separated out up front, the final "compost" product becomes virtually useless and often ends up in landfills.

A recent report by the New York Environmental Institute addresses these concerns. The report, **"Garbage In, Garbage Out,"** was commissioned in response to New York state's embrace of mixed waste composting. It concludes that *"the current lurch towards MSW composting is a mistake which communities will soon regret. Just as early converts to incinerators learned that the plants often did not work, presented unnecessary health risks, were prohibitively expensive and did not provide an environmentally sound solution to solid waste management, so too with MSW compost facilities."* The report goes on to address compost quality, cost comparisons of MSW versus composting of source separated food and yard waste, marketing and environmental compatibility.

Another critical issue about mixed waste composting is the conflict it poses to recycling efforts. If paper, plastics, metals, glass and other recyclables are collected with the general waste stream and composted, there is little incentive for people to participate in recycling programs. As a consequence, programs designed to collect and recycle these materials will be at a serious disadvantage.

Once a community commits to an expensive management option, other competing alternatives are not considered seriously. Once a community sinks millions of dollars into one system, they want to feed all their garbage to this system and don't want to spend more money on other alternatives. Much like building an expensive incinerator, by choosing mixed waste composting, you limit the growth potential of recycling programs.

Consider, for example, what happens if you commit to a mixed waste composting facility and at the same time attempt to

Composting continued on next page

COMPOSTING from page 7

set up a full scale recycling program that would include curb-side pick up in some areas and drop-off centers in others. Where is the money to pay for these programs going to come from? And if the community has had to borrow money to build the mixed waste composting facility, there will be pressure to use this facility to its maximum to pay the big bills and keep the town's bond ratings up.

If the recycling program is even marginally successful, it would reduce the waste going to the compost facility which would reduce its operating efficiency. In communities with incinerators where this has happened, there has been pressure to bring in out-of-state or out-of-county trash to keep up the operation of the incinerator. The same thing could happen in this situation.

There are many companies trying to solve the garbage crisis. The latest tactic by some of these companies is to use safe words like "recycling" and "composting" to describe their process in hopes that communities will accept them at face value. Their real intent is to confuse and fool the public. They want you to think that their process is something other that what it really is.

They way to deal with this strategy is to expose it for what it is - an ill-advised method of handling garbage motivated by politics and profits not by science or common sense. Ask hard questions about the process (see box) and look critically at the answers provided by the company. You're likely to find that very few of them can provide the information that is needed to evaluate if the system can achieve the level of success claimed by salesreps and advertisments.

Also look at your waste management goals and priorities. How much recycling, reuse and waste reduction is occurring in your community and how much more can you do? And ask how this system fits in and how it will help you achieve your goals.

It's important to look at the track record of the company and to talk to city or county managers in communities that are using these systems and find out if they are happy with their decision. And if it turns out that the system has not been used anywhere, then that's important to know as well.

In closing, it makes no sense to trust any system that offers a quick-fix solution to the complicated problems of managing our solid waste problems. There are no magic solutions. You need to organize your community to address these proposals and to put pressure on the decision makers. Contact CCHW for help on how best to do this.

Resources:

"Garbage In, Garbage Out," A hard look at mixed waste municipal solid waste composting, New York Environmental Institute, 49 pages, December, 1991. Available for $20 for non-profits from the NYEI, 353 Hamilton Street, Albany, NY 12210. 518/462-5526.

"Mixed Waste Composting: What's In the mix?" Environmental Action Foundation, 6 pages, 1991. Available for $2.50 from EAF, 6930 Carroll Ave. Suite 600, Takoma Park, MD 20912. 301/891-1100.

Questions to ask about mixed waste composting:

- What is the level of heavy metals and organic chemicals in the final "compost" product?
- What is the level of plastic, paper and other waste in the final "compost" product?
- What communities have used this system before and what was done with their compost?
- If there are other communities that have used this system, who can we contact to learn directly about their experiences with this system?
- Who pays for problems that might arise?
- Does this plan include out-of-county garbage?
- Is there a contract signed for sale of "compost?"

Bright Ideas We Could Live Without

Some conservative scientists are claiming that air pollution is an effecti. counteractive force protecting us from the radiation that is leaking through th. ozone hole. Cleaning up air pollution will just increase ozone hole problems, or s. they claim. The argument further claims that the Ozone hole (if there is one) . caused by volcanoes.... Another such argument is that environmental regulation. are destroying the economy and putting people out of work. In fact, if we just coul. get rid of all those environmental regulations, the economy would heal itself an. George Bush could get re-elected. That seems to be the logic behind Bush's mov. to place a 90 day moratorium on implementing any new regulations, including th. Clean Air Act, during which time the impact of the regulations on the economy can be assessed and modifications, where needed, can be made.... **Southern Recovery Management** wants to reopen the Greater New Orleans landfill, closed in 1986, for about three years to make enough money to pay to properly close it. The plan is drawing sharp criticism from the Tulane University Environmental Law Clinic which said the action would violate the state's environmental regulations and set a disastrous precedent for reopening other hazardous sites.... J.G. "Johnny Outland, Jr., owner of Tar Heel Casket Company in Woodland, North Carolina favors the siting of a **ThermalKEM** hazardous waste incinerator. *"If this thing was really that deadly, don't you know the federal government and the state would be all over this place, saying you better not build it. I haven't seen a-one of them,"* said the casket builder.

Conservative Newspapers attack environmental issues regularly.

June 23, 1993

Mr. Bill Rheinlander
Division of Environmental Protection
Office of Waste Management
1356 Hansford St.
Charleston, WV 25301

Re: Comments on Proposed Title 47, Series 38
Sewage Sludge Management Regulations

Dear Mr. Rheinlander, et al.:

Pursuant to your establishment of a comment period for the proposed Title 47, Series 38D, Sewage Sludge Management Regulations, we respectfully submit the following synopsis of our concerns regarding the present draft of this rule.

1. Our first concern is in regard to the wholesale incorporation of the federal Series 40, Part 503 regulations. While this EPA document does provide certain language that might be usefully synthesized with state-promulgated regulations to produce a comprehensive regulatory package, the union of 503 with the 38D draft regulations produces a package rife with contradiction and noncompliance with code. As described in greater detail below, SB 288 proscribes dedicated sewage sludge disposal sites, while the 503 regulations permit them; 288 mandates that maximum levels in land-applied sewage sludge be compatible with background metals levels in the recipient soil, whereas the 503 regulations explicitly ignore background levels; 288 enumerates an impressive list of reporting requirements, few of which are present in the 503 reporting section. These egregious examples serve only to highlight a few of the many contradictory points that demonstrate the 503 regulations, when taken indiscriminately, to be incompatible with state policy.

For these reasons, we believe that the proposed Series 38D regulations in their present form should be scrapped entirely. We respectfully urge that the DEP rewrite the regulations, beginning with careful editing of 503, in order to bring them into compliance with the spirit and letter of SB 288. Our subsequent comments delineate the elements that we consider most essential to a compliant and effective set of regulations.

WEST VIRGINIA-CITIZEN ACTION GROUP
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2. SB 288 (now state code), 20-5F-2b (e), provides, inter alia, that, "...no land within a solid waste facility, but outside a landfill disposal cell, be allowed to accept the permanent application of so much sewage sludge as to exceed the agronomic rate or fifteen dry tons per acre per year, whichever is less:". This language is intended to proscribe so-called "dedicated sites", on which large quantities of sludge are land-applied within a solid waste facility, but outside of the facility's landfill cell. This practice, governed by environmental protection requirements less stringent than those that apply to landfilling, results in both an overload of soil with metals and nitrogen and the transmission of these substances to ground and surface water.

In contrast, WV regulatory code, 47-38D-3.2.3, reads, "No land, except a solid waste facility, shall be allowed to accept or store so much sewage sludge as to exceed the agronomic rate or a rate of fifteen dry tons per year, whichever is less..." Furthermore, the fully incorporated federal regulations, 503.23(b)(1), explicitly allow dedicated sites within such facilities by the following language: "At the time of permit application, the owner/operator of a surface disposal site may request site-specific pollutant limits in accordance with 503.23(b)(2) for an active sewage sludge unit without a liner and leachate collection system . . . when the permitting authority determines that site-specific pollutant limits are appropriate for the active sewage sludge units." In combination, these regulations encourage precisely the practice which the Legislature intended to end by the passage of SB 288.

In order to bring these regulations into compliance with the intent and substance of SB 288, we recommend several changes. First, the above-quoted language of 20-5F-2b(e) should be incorporated in the regulations immediately subsequent to 47-38D-3.2.3 as 47-38D-3.2.4. Second, 503.23(b)(1) and 503.23(b)(2) (which exists solely to complement the former), should be stricken from the regulations. Together, these alterations would eliminate non-compliance with SB 288.

3. SB 288, 20-5F-2b (b) (6) mandates that the regulations at issue require, "That no person or entity be allowed to apply sewage sludge to land in a manner that will result in exceeding the maximum soil concentration for all pollutants, including, but not limited to, arsenic, cadmium, chromium, copper, lead, mercury, molybdenum, nickel, selenium and zinc...." The intent of this language is to safeguard soil quality by ensuring that calculations of the maximum acceptable quantities of pollutants that may be land-applied without exceeding safe limits of cumulative soil pollutant contents incorporate the background levels of those pollutants in the soil. The Legislature meant thereby to control the total concentration of pollutants in any soil to which sewage sludge is applied, rather than merely the quantities added to pre-existing levels.

47-38D-3.2.2. addresses this issue through incorporation of the federal 40 CFR Part 503 regulations, stating simply that, "No person or entity shall be allowed to apply sewage sludge to land in a manner that will result in exceeding the maximum soil

concentration for all pollutants, including, but not limited to, arsenic, cadmium, chromium, copper, lead, mercury, molybdenum, nickel, selenium and zinc, to be determined upon cumulative loading rates of 40 CFR, 503.13(b)(2) and 503.12(e)(2).

By incorporation of the 40 CFR Part 503 regulations, DEP includes the following language, from 503.12(e)(1)(ii): "If bulk sewage sludge subject to the cumulative pollutant loading rates in 503.13(b)(2) has not been applied to the site since [insert 120 days after the effective date of this part], the cumulative amount for each pollutant listed in Table 2 of 503.13 may be applied to the site in accordance with 503.13(a)(2)(i)." This language, in combination with the absence of any reference to background levels elsewhere in 40 CFR Part 503, assumes the background levels of all pollutants to be zero. Thus, the regulations control not the total pollutant concentration of the soil, but only the total quantity of pollutants applied to the soil after these regulations take effect. This effect diverges radically from legislative intent. We urge the DEP to revise these regulations in order to ensure that background pollutant levels are taken into account in calculating maximum permissible quantities of land-applied sewage sludge.

To this end, we suggest that the Division consider the regulations of Ontario. That Canadian province has calculated its maximum acceptable metals levels based upon the background soil levels of those metals and upon the nutrient requirements of crops and wild fauna. The DEP will note that these figures are significantly lower than those include in the federal 503 regulations.

4. SB 288, 20-5F-2b(e) declares that, "All sewage sludge placed in, or upon, or used by a solid waste facility or processed or handled, pursuant to a permit issued by the division of environmental protection, shall be subject to the same tipping and other fees levied by this chapter on the disposal of solid waste and shall be included in said facility's total tonnage...." After revision by a subsequent proviso, this language still clearly requires that all sewage sludge land-applied or landfilled within a solid waste facility be subject to solid waste tipping fees.

Similarly, SB 288, levies fees on the production and import of sewage sludge as follows. "20-5F-2b(b)(12) That a fee, to be paid by the producer or importer, be levied and imposed on the land application of sewage sludge, to be collected at a per ton rate, sufficient to cover the costs of the sewage sludge management program."

The Series 38 regulations are clearly intended to reflect these intentions, but are crafted in such a way as to make their effect uncertain. According to 47-38D-6.1, which precedes the enumeration of the above-mandated fees, "Any person required to obtain a solid waste facility permit, pursuant to these regulations, shall be subject to non-refundable fees, as described herein, which shall be used to cover the costs of future environmental remediation." (Underlining added.)

By altering the criteria by which the fees are applied from "a permit issued by the division of environmental protection" and "by the producer or importer . . . on the land application of sewage sludge" to "a solid waste facility permit . . . pursuant to these regulations", the authors seem to have inadvertently opened a significant loophole. 47-38D-4.1.3, in the portion of the regulations dealing with permit requirements, reads, "For those sewage sludge processing facilities which are located on or within a facility regulated by the division pursuant to a solid waste permit required under Chapter 20, Article 5F, a sewage sludge processing facility modification will be obtained by the applicant as a part of the existing solid waste permit and shall include a sewage sludge management plan."

Almost identically, state regulation 47-38D-4.1.2 reads, "For those publicly owned treatment works (POTW) which produce sewage sludge and are regulated by the division pursuant to an WV/NPDES permit required under Chapter 20, Article 5A, a sewage sludge processing facility modification will be obtained by the applicant as a part of the existing WV/NPDES permit and shall include a sewage sludge management plan."

As neither of these facilities' permits is not replaced as a result of 38D's new language, but simply modified (in fact, POTW's do not even hold solid waste facility permits), neither is therefore "issued pursuant to these regulations."

This seemingly arcane point might well prove the source of many headaches if POTW's and landfill operators with extant permits were to read into it an exemption from assessment fees and defend their interpretation in court.

We urge the DEP to make the slight alteration necessary to clarify this language, and to that end submit the following:

> *47-38D-6.1. Any producer or importer of solid waste shall be subject to non-refundable fees, as described herein, which shall be used to cover the costs of the sewage sludge management program and to cover the costs of future environmental remediation.*

This incorporation of language from SB 288 neatly ends the previous ambiguity of the fee-applicability criteria, and strikes us as the most effective way of addressing this issue.

Beyond the matter of applicability, we question the wisdom of charging a simple remediation fee to all producers and importers. In the interest of fairness, such fees should be levied solely upon those whose projects require remediation, a category into which POTW's and importers who provide sewage sludge for small-scale land application projects generally do not fall. For this reason, we suggest that the remediation fee be

replaced by a bonding program in which only large importers and producers would be required to participate. By this mechanism, the state could at once remove a financial burden from those who bear no responsibility for environmental degradation and ensure adequate funding for future remediation projects.

5. SB 288, 20-5F-2b(b)(8), mandates that the resultant regulations ensure, "That information relating to the disposal of sewage sludge is available to affected communities." Although they contain requirements that tonnage and pollutant contents be reported to local solid waste authorities, neither the Part 503 nor the Series 38D regulations make any reference to the dissemination of information to the public.

We offer the following suggestion to bring the Series 38 regulations into keeping with SB 288: require that public notice be given locally and a comment period established prior to the commencement of any land application of sewage sludge or sewage sludge composting program; if the response (in the form of comments) demonstrates considerable public interest, hold a minimum of one public hearing on the project. This mechanism would allow informed public input in the presence of genuine interest, but would not unduly burden the DEP and/or applicators by requiring extensive educational or opinion-gathering efforts in areas where public interest in such projects is small or nonexistent.

6. SB 288, 20-5F-2b(b)(1), stipulates, "That entities either producing sewage sludge within the state or importing sewage sludge into the state are required to report to the division the following:

(i) The specific source of the sewage sludge

(ii) The amount of sewage sludge actually generated or imported

(iii) The content of heavy metals, pathogens, toxins or vectors present in the sewage sludge; and

(iv) Each location that the sewage sludge is stored, land applied or otherwise disposed of; the amount so stored, land applied or otherwise disposed of; and the capacity of that location to accept sewage sludge.

The state regulations repeat these data categories in 47-38-4.2.1 and 4.2.2, 5.1.1, and 5.2.2. but as information mandated only to appear in permit applications or be provided for in newly issued permits. The only reporting requirements that would affect existing sludge processing facilities appear in Series 40 503.27 and 503.28, and read as follows.

"(a) When sewage sludge is placed on an active sludge unit: (1) The person who prepares the sewage sludge shall develop the following information and shall retain the information for five years.

(i) The concentration of each pollutant listed in table 1 of 503.23 in the sewage sludge when the pollutant concentrations in table 1 of 503.23 are met.

(ii) The following certification statement: `I certify, under penalty of law, that the pathogen requirements in [insert 503.32 (a), 503.32 (b), 503.32(b)(3), or 503.32(b)(4) when one of those requirements is met] and the vector attraction reduction requirements in [insert one of the vector attraction reduction requirements in 503.33(b)(1) through 503.33(b)(8) when one of those requirements is met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine the [pathogen requirements and vector attraction reduction requirements if appropriate] have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.'

(iii) A description of how the pathogen requirements in 503.32(a), 503.32(b)(3), or 503.32(b)(4) are met when one of those requirements is met.

(iv) A description of how one of the vector attraction reduction requirements in 503.33(b)(1) through 503.33(b)(8) is met.

(2) The owner operator of the surface disposal site shall develop the following information and shall retain that information for five years.

(i) The concentration of each pollutant listed in Table 2 of 503.23 in the sewage sludge when the pollutant concentrations in Table 2 of 503.23 are met or when site-specific pollutant limits in 503.23(b) are met.

(ii) The following certification statement:

`I certify, under penalty of law, that the management practices in 503.24 and the vector attraction reduction requirement in [insert one of the requirements in 503.33(b)(9) through 503.33(b)(11) if one of those requirements is met] have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the management practices [and the vector attraction reduction requirements if appropriate] have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.'

(iii) A description of how the management practices in 503.24 are met.

(iv) A description of how the vector attraction education requirements in 503.33(b)(9) through 503.33(b)(11) are met if one of those requirements is met. . . .

503.28 Reporting
(a) Class I sewage sludge facilities . . . shall submit the information in 503.27(a) to the permitting authority on [insert the month and day from the date of publication of this part] of each year."

This language ignores completely the mandates of SB 288, 20-5F-2b(b)(1)(i), (ii), and (iv). Furthermore, it fails to satisfy fully the requirement of 20-5F-2b(b)(1)(iii), as the pollutants listed in Table 2 of 503.23 are only arsenic, chromium, and nickel. This list is far from an exhaustive enumeration of heavy metals, among which SB 288, 20-5F-2b(b)(6) includes both the above and cadmium, copper, lead, mercury, molybdenum, selenium, and zinc. Furthermore , this list fails utterly to comply with 20-5F-2b(b)(1)(iii)'s dictate that the quantity on pathogens, toxins, and vectors in the sludge be reported. In short, the regulations make virtually no effort at meeting the reporting requirements contained within SB 288.

The dangers of these omissions are fairly obvious. Without knowledge of the source of sewage sludge, the DEP cannot contact officials in the sludge's state of origin to ascertain the production processes and corroborate quality assessments of the sludge. Absent reporting of the total tonnage of sludge imported, the division cannot ensure that assessment and land application fees are paid commensurate to the quantity of sludge actually brought into the state. Lacking descriptions of the specific location of sludge within a facility, DEP cannot adequately enforce storage guidelines or confirm that use of illegal dedicated sites is not taking place. Finally, without data detailing the pollutant, toxin, pathogen, and vector contents of imported sewage sludge, the division simply cannot safeguard soil quality or public health. For all these reasons, we urge the DEP to alter the regulations in order to bring them into compliance with the language of SB 288.

7. The Series 38 regulations, 47-38D-4.2.3.1., under the Land Application Permit Requirements section, mandate that permits include, "For sewage sludge or material derived from sewage sludge, which has been imported, information relative to the significant industrial users of the POTW from which the sludge or material originated . . ." The intent of this language is to determine the nature of industrial effluents that are processed by the POTW which produces the sludge to be land-applied.

We fear that "relative to significant industrial users" does not adequately specify the information required. Therefore, we suggest that the following language be inserted in place of the above.

> *4.2.3.1. For sewage sludge or material derived from sewage sludge, which has been imported, information describing the contents of the effluents produced by all industrial users of the POTW from which the sludge or material originated; and a complete description of any treatment of those effluents.*

This language strikes us as sufficiently specific to adequately address this issue, while not overly onerous in its requirements.

8. Much of SB 288 is concerned with regulating the disposal procedures followed by sludge processors and landfill operators in order to ensure that all sewage sludge is handled safely and efficiently. A single portion of the federal 503 regulations threatens to undermine this intent. Series 40, 503.20 (b), within a subpart addressing surface disposal, reads as follows.

"This subpart does not apply to sewage sludge stored on the land or to the land on which sewage sludge is stored. It also does not apply to sewage sludge that remains on the land for longer than two years when the person who prepares the sewage sludge demonstrates that the land on which the sewage sludge remains is not an active sewage sludge unit. The demonstration shall include the following information, which shall be retained by the person who prepares the sewage sludge for the period that the sewage sludge remains on the land:

(1) The name and address of the person who prepares the sewage sludge.

(2) The name and address of the person who either owns the land or leases the land.

(3) The location, by either street address or latitude and longitude, of the land.

(4) An explanation of why sewage sludge needs to remain on the land for longer than two years prior to final use or disposal.

(5) The approximate time period when the sewage sludge will be used or disposed."

As this storage exemption frees qualifying disposal sites from the management practices mandated by the remainder of the subpart, which include strict siting guidelines and leachate control requirements, it would obviously be highly desirable to an unscrupulous operator of a surface disposal facility. This desirability is enhanced by the fact that assessment fees on landfilled sewage sludge are not charged until the material is placed in the landfill cell, making stored sewage sludge temporarily exempt from such fees.

Given the temptation to manipulate this section, we feel that the criteria offered by the 503 regulations for storage extension, including as they do no concrete parameters for approval or disapproval of an extension request, are inadequate. We accordingly submit the following suggestions and respectfully urge that they be incorporated in place of the current 503.20.

Establish an absolute one-year maximum for storage of sewage sludge, and this only for stabilized sewage sludge from which leachate runoff is prevented; allow septage storage only within a tank and for a short time, e.g., two days; proscribe the storage of sewage sludge at a land application site beyond the day of its arrival, except for sewage sludge protected by a roof and, again, from which leachate runoff is prevented; in this case, limit on-site storage to a week; and bar the on-site storage of more sewage sludge than is to be land-applied at the site.

9. The proposed state regulations, 47-38D-2.43., state that, "'Source separated organic waste' means readily degradable organic material such as food waste, yard waste and wood waste which is collected separately from the mixed solid waste stream. It does not include sewage sludge or domestic septage." As this definition is intended to create a class of easily compostable waste which presents no potential environmental or health hazard, we respectfully suggest that it be altered slightly to explicitly exclude pressure-treated, creosote-coated, and lead paint-covered lumber, as well as any other wood bearing or containing materials which might qualify it as hazardous waste. Without this elaboration, such lumber might easily be construed as simple wood waste.

10. The proposed state regulations contain the following language under the Permit Applicability section, 47-38D-4.1.3. "For those sewage sludge processing facilities which are located on or within a facility regulated by the division pursuant to a solid waste permit required under Chapter 20, Article 5F, a sewage sludge processing facility modification will be obtained as a part of the existing solid waste permit and shall include a sewage sludge management plan."

We believe that such a modification is of sufficient magnitude that it should be designated a major modification and made subject to all concomitant public notice and public hearing requirements.

Furthermore, given the radical change in the regulation of the sewage sludge processing industry brought about by the passage of SB 288 and promulgation of these regulations, we believe that a facility applying for a modification to its existing solid waste facility permit should undergo the process of permit reissuance provided for in state regulations 47-38-3.18.1.a.B. Only through such a complete revamping can a permit adequately reflect the new regulatory climate of the state.

Hence, we submit the following language and respectfully suggest that it be incorporated into the proposed regulations:

> *38D-4.1.3. For those sewage sludge processing facilities which are located on or within a solid waste facility regulated by the division pursuant to a solid waste permit required under Chapter 20, Article 5F, a sewage sludge processing facility modification*

> *will be obtained as a part of the existing solid waste permit and shall include a sludge management plan. Said modification shall be considered a major modification requiring the reissuance of the facility's permit and shall be subject to the requirements of public notice and opportunity for a public hearing concomitant to that designation.*

11. The proposed Series 38D regulations, while enumerating a list of items required to appear in processing facility and land application permits, makes no provision for punitive DEP action in the event of noncompliance with the stipulations of the permit or in the event that a health hazard arises from the activities of the facility. Therefore, we suggest that the following be included under 47-38D-5, General, Processing Facility, and Land Application Permit Requirements.

> *47-38D-5.i.i.j. Provision that the director may, in the event of noncompliance with the any of the stipulations of the permit, or in the event that a health hazard arises from the activities of the facility or land application, revoke the permit.*

We consider this language adequate to provide the DEP with enforcement power while leaving punitive action at the discretion of the director.

12. The proposed Series 38 regulations, 47-38-3.6, read as follows.

"Landfill Disposal of Sewage Sludge. Sewage sludge disposed at a landfill shall contain at least twenty percent (20%) solid by weight. This requirement may be met by adding or blending sand, sawdust, lime, soil, or other materials that have been approved by the chief prior to disposal. Alternative sludge disposal methods can be utilized upon obtaining written approval from the chief."

The dearth of stipulations as to the nature of acceptable "other materials" and "alternative disposal methods" strikes us as a bit alarming. While we applaud the development and utilization of safe, practical bulking agents and disposal methods, we believe that reasonably stringent criteria should be developed to govern these. Otherwise, we fear that unscrupulous operators may seek to bulk their sludge with any material of which they desire to rid themselves and that "alternative methods" may become a synonym for less environmentally acceptable (and less expensive) disposal techniques.

Until such criteria can be incorporated into the regulations, we respectfully suggest that the provisions permitting "other materials" and "alternative disposal methods" be stricken.

13. The proposed state regulations, 47-38D-4.2.2.a.A, require that sewage sludge processing facility permits include, "A regional map, or maps, (of appropriate scale) that delineate the entire service area of the proposed facility (both existing and proposed); existing and proposed collection, processing, and disposal operations; the location of the closest population centers; and the transportation systems including highways, airports, railways and waterways."

While we consider this a wise stipulation, we fear that the term "service area" is inadequately defined. As a facility's service area is the region from which it draws its sewage sludge, we suggest that the language be altered as follows.

> *47-38D-4.2.2.a.A. "A regional map, or maps, (of appropriate scale) of the regions served by the POTW's from which the proposed facility will receive sewage sludge; . . . (remainder unaltered)*

This language makes no substantive change in the regulations, but, we believe, more clearly defines the information required.

14. In a number of instances, particularly in regard to management practices applicable to sludge processing facilities and land application, the proposed regulations make provision for exemptions granted at the discretion of the Chief or "permitting authority", e.g., 47-38D-2.2.1.a; 503.14(c);503.14(d). Although we recognize the importance of discretionary regulatory flexibility, we strongly believe that members of the public should have the opportunity to learn of and comment upon any exemptions that may affect them. For this reason, we respectfully suggest that, whenever an agent of the DEP exempts an operation from any regulatory mandate, the agency be required to post public notice of the exemption in the affected region; establish a public comment period on the exemption; provide the opportunity for a public hearing on the exemption; and make available to the public a written rationale for the exemption. The following language might serve as a model for such a requirement.

> *Prior to granting an exemption from any requirement of these regulations, the division shall make available to the public a written rationale for the proposed exemption; post public notice of the proposed exemption in the affected region; establish a period for public comment on the proposed exemption; and provide the opportunity for a public hearing on the proposed exemption.*

This requirement strikes us as a reasonable safeguard of public health, and we urge the DEP to adopt it.

Furthermore, no exemption should be permitted to extend indefinitely without review. We suggest that an automatic expiration date, perhaps 31 December of the year of issuance, be attached all exemptions.

15. The proposed state regulations, 47-38D-3.2.1., a-l, enumerate sites on which sewage sludge may not be applied. While these proscriptions are a valuable acknowledgment of the potential for contamination that is inevitable in the land application of sewage sludge, we believe that they provide inadequate safeguards of public health. We respectfully suggest the incorporation of the following language, in which only the distances and degrees have been changed from the current draft. Our recommended numbers are drawn from the land application regulations of Pickaway County, Ohio.

> *3.2.1.b. Land within 300 feet of surface water to include springs, ponds, wetlands, or other collection points for surface water.*
>
> *3.2.1.c. Land within 1000 feet of drinking water supply wells or other personal water supply.*
>
> *3.2.1.d. Land within 1000 feet of an occupied dwelling.*
>
> *3.2.1.h. Land that has been tested and determined to have a pH of less than 6.5.*
>
> *3.2.1.i. Land that has a slope greater than 6%.*
>
> *3.2.1.k. Land that has less than 36 inches of soil over groundwater or an impervious pan.*

We consider these numbers significantly more conducive to safe land application of sewage sludge than are the currently proposed figures, and urge the DEP to adopt them.

In the same vein, we submit the following management practice restrictions applicable to land application operations, and suggest that they be adopted.

> *1. Sewage sludge must be incorporated into the ground as it is applied, or may be applied onto recently plowed soil and disced into the soil within twenty-four hours.*
>
> *2. There shall be no application of sewage sludge by spray irrigation except by special permit, issued by the Chief, showing that no health hazard is likely to result from said application.*

3. There shall be no application of sludge except during the hours of daylight.

4. All vehicles used to transport sludge shal be so constructed and operated as to avoid spillage or discharge onto public roads. Any spillage occurring on roadways shall be cleaned daily by the operator responsible for the spillage.

5. No sewage sludge shall be applied to snow-covered land or during rain.

6. No dairy cattle shall be permitted to graze on recipient soil for twelve months after land application of sewage sludge.

7. No other livestock shall be permitted to graze on recipient soil for one month after the land application of sewage sludge.

8. No sewage sludge shall be land applied unless there will be demonstrable benefit to the recipient soil in the form of nutrients.

Thank you for your consideration.

Respectfully submitted,

WEST VIRGINIA-CITIZEN ACTION GROUP, INC.

By:

Jedediah S. Purdy

Norman R. Steenstra

David L. Grubb, Esq.

6/23/93

Robert C. Bricker, Jr.
766 Weaver St.
Morgantown, WV 26505

ATTN: Bill Rheinlander
Office of Waste Management, DEP

RE: Sewage Sludge Management Regulations

Mr. Rheinlander,

By necessity , appropriate management of sewage sludge is essential to maintaining sanitary conditions within and around West Virginia's communities. Like the wastewater from which it is derived , and the solid waste with which it is sometimes disposed , sewage sludge is a potential source of disease and has contents which may be environmentally harmful.

Because of lack of regulation and a stringent monitoring program , the legislature has directed DEP to promulgate regs governing the safe disposal of sewage sludge within West Virginia's borders. The regulations should deter abuses of our natural resources , as well as provide direction for our communities. The regulations should reflect the intent of 40 CFR , 503 , and the intent of the West Virginia legislature as it has directed.

As I have reviewed the promulgated regs , consider my comments as follows:

2.1 Include phosphorus in the definition of agronomic rate.

(1) To provide the amount of nitrogen or phosphorus, whichever requirement is met first, needed.....

(3) To minimize the amount of phosphorus which runs off into surface waters. (Explanation: many agricultural soils already contain the amount of phosphorus required.)

2.43 Include in the definition of source separated organic material <u>newspapers</u> and perhaps other paper such as shredded phone books. (The primary fiber in paper is cellulose , a biomolecule. Paper degrades more readily than wood waste which is included in the definition.)

3.2.1.a Delete the words "or known to be flooded on a regular basis. (Ambiguous)

Add 3.2.1.m Land that is frequently or occassionally flooded as defined by Soil Survey Staff , Soil Conservation Service.

Comments on Proposed Rule - Title 47, Series 38D
Sewage Sludge Management Regulations
June 23, 1993

My name is Missy Woolverton. I am a resident of Charleston, WV, and I appreciate the opportunity to speak at this public hearing. I will address my comments to the incineration section of the regulations. First of all, what is the Division of Air Quality's role to be in the administration of these regulations? As late as yesterday, it was clear that they had not been included in the review of the 503 or in the preparation of the regulations before us. This is totally inappropriate. It is imperative that all the sections of the Division of Environmental Protection that will have regulatory authority should have input.

While West Virginia only has two sewage sludge incinerators, one in Clarksburg and the other in Huntington, according to 503 documentation more than 16% of sewage sludge disposed of by POTWs in the U.S. is incinerated annually. In 1988 that amounted to a total volume of 860,000 dry metric tons. And approximately 52% of those sewage sludge incinerators were built more than twenty years ago. Incineration, even at its best, is not an economically or environmentally sound management tool for handling waste. The 503 supports the concept of beneficial use, yet the incineration of sewage sludge with its attendant air, water and soil contamination potential is hardly a beneficial use of the sludge.

Since it was clearly the intent of HB 2445 to prohibit the burning of solid waste in incinerators, I would ask that the State diverge from the 503 and disallow the burning of municipal solid waste as an auxiliary fuel in sewage sludge incinerators. Better yet, they should ask the legislature to extend the prohibition on municipal and commercial solid waste incinerators to include new sewage sludge incinerators during the next session.

Another area of concern is that the 503 as it relates to sewage sludge incinerators evaluates only exposure assessment Pathway 13--inhalation, and does not take into consideration indirect exposure routes such as consumption of food in the area. Dioxin, a known carcinogen and immune system suppressant, is present in the stack emissions and ash residue of incinerators. Dioxin is known to bioaccumulate in the fatty tissues and in the milk of humans and animals that eat or drink products contaminated with dioxin. We should be examining food chain exposures when we assess the risks of incineration. It is my understanding that EPA's own exposure guidelines include many sections on risks from non-inhalation exposures, most notably food chain exposures (EPA Superfund Exposure Assessment Manual, 1988, EPA/540/1-88/--1, OSWER Directive 9285.5-1 and Guidelines for Exposure Assessment, Federal Register, Friday May 29, 1992). I have also enclosed a January 22, 1993 memo from Richard Guimond, Acting Assistant Administrator, to Carol Browner, Administrator, US EPA, relative to the WTI hazardous waste incinerator in East Liverpool, Ohio. While dismissing Greenpeace's use of the Office of Research and Development (ORD) draft document "Estimating Exposures of Dioxin-Like Compounds" to show that risks from consuming products from cattle raised near the incinerator can be 10,000 times greater than the risks from inhalation, it does state that ..."a preliminary

assessment done by ORD does show risks from beef and milk consumption can be 1,000 times higher than risks from inhalation near the WTI facility."

As for the stack height option in the 503 as a means of meeting numerical pollutant limits before installing expensive air pollution control equipment--raising the stack does not reduce the amount of pollutants coming out of the stack, it simply disperses them over a wider area. Dilution is not the solution to pollution.

As per the National Resources Defense Council's and Environmental Defense Fund's joint summary of comments on the 503 proposed sludge rules, "tall stack "credits" for dispersion, which do not consider post-deposition exposure and would actually allow for increases in the total mass of pollutants emitted. must be prohibited for all current and future incinerators."

They go on to state that ..."EPA must establish a compound-specific risk-based emissions standard with quarterly monitoring, coupled with requirements for specific control technology and both minimum and maximum temperature controls. THC monitors should, however, be required to continously monitor control efficiency." The 503 establishes a THC limit of 100 ppm for sewage sludge incinerators. Hazardous waste incinerators are restricted to 20 ppm. There doesn't appear to be any reason that sewage sludge incinerators cannot meet the same 20 ppm limit.

EPA does not set a limit for copper. They need to pick a conservative copper limit, so there is no future backsliding of sludge quality.

In Section 503.46 of the 503 regulations, after two years the permitting authority can reduce the frequency of monitoring for arsenic, cadmium, chromium, lead, and nickel to once per year when sewage sludge is fired in a sewage sludge incinerator. It is irresponsible and unsafe to assume that because monitoring has been done properly and in a timely manner for two years, it will continue to be done in the same manner without the regulatory hammer.

Section 503.47 calls for records to be retained for five years. Would it not be helpful for future studies such as the updating of these 503 regulations, if records were retained for some longer specified time.

I have also enclosed comments on the 503 Cadmium Standards from The Natural Resources Defense Council and the Environmental Defense Fund for your consideration.

In conclusion, while I have confined my comments to the incineration aspect of the regulations, and my comments are by no means comprehensive, I have read the regulations in their entirety. I do not feel they adequately address many of the issues which made their promulgation as emergency regulations necessary. I suggest that the DEP revisit these proposed regulations immediately, and follow the intent of SB 288.

Missy Woolverton
909 Somerset Rd
Charleston WV
25302

January 22, 1993

Note to: Carol Browner, Administrator

From: Richard Guimond, Acting Assistant Administrator,
Office of Solid Waste and Emergency Response

Subject: WTI Incinerator Issues

BACKGROUND: This note is to bring you up to date on the activities we have underway to evaluate the issues relative to the Waste Technologies Incorporated (WTI) incinerator in Ohio. This incinerator has obtained all of the necessary permits to conduct a trial burn. However, strong opposition from local citizen groups has led to a court hearing (which was to have been today but has been postponed until February 8) on whether a temporary restraining order should be imposed to prevent operation of the facility. WTI has verbally agreed not to commence the trial burn or limited commercial operation until after the hearing.

ISSUES: The immediate issue is whether the WTI risk assessment prepared by EPA is adequate. This assessment, which by EPA policy is site-specific, showed that risks from the incinerator emissions (including emissions of dioxins) were within the range of risks historically considered acceptable by EPA. A longer term issue, which will require Agency-wide consultation, is how to devise a national policy regarding indirect exposure assessments for dioxin. This could have major implications for numerous EPA programs and could require a reevaluation of risks at many other sources of air emissions.

The risk assessment was prepared by the Region 5 office for the WTI facility. It focused primarily on risks associated with inhalation of the emissions, an approach which the Agency has historically used in evaluating air emissions. Region 5 concluded that indirect exposure routes (e.g., consumption of food raised in the area) were not likely to present significant additional risk based on a draft dioxin risk assessment for another combustion unit.

The Office of Research and Development (ORD) has a draft document, "Estimating Exposures to Dioxin-Like Compounds," which describes a methodology and provides an example of how indirect exposures, such as exposures from soil contamination and subsequent food chain contamination resulting from air emissions, can be evaluated.

Greenpeace used a specific example from this document to attempt to show that risks from consuming products from cattle raised near the incinerator can be 10,000 times greater than the risks from inhalation and are, therefore, unacceptable. The use of the example from the ORD report in the WTI situation is not appropriate, since the risks from air emission sources are very highly dependent on site-specific factors. However, a preliminary

TELEFAX

Date: 6/23/93

From: Rich Walter

ecology and environment, inc.
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Addressee: Dave Bailey, GFG

FAX Number: (304) 558, 0256

Attention: C/O Amy Torrey

Reference: MCLs

Number of Pages: 002

Please deliver this to

Dave Bailey

Thanks

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COMMENTS OF
LCS SERVICES, INC.
REGARDING THE PROPOSED
SEWAGE SLUDGE MANAGEMENT REGULATIONS

I. INTRODUCTION

On May 24, 1993, the West Virginia Division of Environmental Protection ("DEP") filed with the Secretary of State a proposed legislative rule pertaining to sewage sludge management as authorized under the West Virginia Solid Waste Management Act at Chapter 20, Article 5F of the West Virginia Code ("the Act"). The rule is proposed for inclusion in the Code of State Regulations at Title 47, Section 38D.

LCS Services, Inc. ("LCS") operates the North Mountain Landfill located in Berkeley County. The North Mountain Landfill is a state of the art solid waste facility fully permitted pursuant to Chapter 20, Article 5F of the West Virginia Code. Because LCS has in the past accepted sewage sludge for disposal at the North Mountain Landfill (and desires to continue this practice in the future), LCS respectfully pledges its assistance in the development of these regulations. It is in furtherance of this pledge that LCS offers these comments.

II. COMMENTS

1. Section 2.5 (page 2); Bulking Agent

The definition of the term "bulking agent" as defined in the proposed regulations does not conform with its statutory counterpart found at Section 20-5F-2(cc). LCS suggests that the

definition given this term under these proposed regulations be drafted so as to conform to the definition given it under the Act, so that the terms will be interpreted in a consistent fashion. To this end, LCS urges the deletion of the proposed regulatory definition and the substitution of the following language therefor:

> (cc) "Bulking agent" means any material mixed and composted with sewage sludge.

2. **Section 2.21 (page 4); Importer**

Although this term is not defined under the Act, the definition given it under the proposed regulation is vague and, thereby, overly broad. The regulation purports to define the term to mean "any person bringing in or receiving sewage sludge from any outside source for the purpose of processing." In order to allow for clear regulatory interpretation of the meaning of this term, LCS urges the deletion of the word "outside" from the proposed regulation, and suggests the insertion of the following phrase immediately after the word "source" appearing in the second line of the regulation: "outside the State of West Virginia".

3. **Section 2.24 (new) (page 4); Land Application**

No definition is given to the term "land application" although that term is employed in the corpus of the proposed regulations. Thus, LCS suggests the incorporation of the following definition for this term to be inserted as the new Section 2.24. (Renumbering of subsequent sections would be required as appropriate):

> 2.24. "Land application" means the spraying or spreading of sewage sludge onto the land surface; the injection of sewage sludge

> below the land surface; or the incorporation of sewage sludge into the soil so that the sewage sludge can either condition the soil or fertilize crops or vegetation grown in the soil, but shall not mean the use of sewage sludge for daily or final cover at solid waste facilities permitted pursuant to Chapter 20, Article 5F.

4. **Section 2.38 (pages 5-6); Solid Waste**

This section defines the term "solid waste" in a manner which is inconsistent with the definition given this same term under the Act. In order to conform the proposed regulatory definition to its statutory counterpart, LCS suggests the addition of the following language immediately after the term "by-product material" appearing midway in the text of this section: "as defined by the Atomic Energy Act of 1954, as amended, including any nuclear or by-product material".

5. **Section 4.1 (page 10); Permit Applicability**

This section, and its corresponding subsections, sets forth a description of persons and facilities required to obtain a permit for the construction or operation of a sewage sludge processing facility, including commercial solid waste facilities processing or handling sewage sludge. Subsections 4.1.2 and 4.1.3 both require the obtaining of a sewage sludge processing facility modification to existing WV/NPDES or solid waste facility permits respectively. However, these subsections fail to specify whether or not such modification will be considered minor or major under the respective rules. This is a very important void under the rules as proposed, as the requirements for the initiation of minor

and major modifications are dramatically different. Thus, it is unclear as to whether or not these provisions trigger the extensive permit modification and disclosure requirements under the solid waste management regulations. In this regard, LCS suggests that such modifications be considered minor under the rules and the current approval procedures adopted and maintained, so as to avoid burdening both the regulated community and state agencies alike by requiring fully permitted facilities to fulfill otherwise duplicative and superfluous permit application requirements while the state incurs corresponding oversight and other administrative costs.

Additionally, the rules, as proposed, also fail to set forth with specificity the regulatory compliance status of facilities currently processing or handling sewage sludge on an approved basis. For instance, certain solid waste facilities permitted under Chapter 20, Article 5F may currently be accepting or contractually obliged to process or handle, sewage sludge on an approved basis. The rules should not be drafted in a manner which would effectively stay their ability to accept such sewage sludge and, thereby, prohibit their ability to perform their obligations under such contracts. This problem is only compounded by the fact that the rules, as proposed, lack dates for implementation and deadlines in this regard. Therefore, reasonable dates or timeframes for the required obtaining of such modifications to permits should be supplied within the rules in order to ensure that the rules operate prospectively and do not frustrate the ability of

fully permitted facilities to continue to accept, process and handle sewage sludge through the implementation period of the proposed regulations.

6. **Section 4.2.2 (page 11); Sewage Sludge Processing Facility Permit Requirements**

This section, and its corresponding subsections, establishes the requirements for obtaining a sewage sludge processing facility permit. A drafting error appears in the first phrase of this section which reads, in pertinent part, "all applicants for sewage sludge processing facilities". This phrase should be deleted and the following language substituted therefore: "all applicants for sewage sludge processing permits,".

7. **Section 6.3.3 (page 18); Fee Assessments**

This subsection, as proposed, imposes statutorily mandated disposal tariffs and fees on "all sewage sludge placed in, or upon, or used by a solid waste facility. . . ." As drafted, however, this section fails to embrace the beneficial use of sewage sludge. Under the recently promulgated federal rule entitled "Standards for the Use or Disposal of Sewage Sludge" (58 Fed. Reg. 9248, February 19, 1993), it is clearly stated that the rule does not prohibit use of sewage sludge for daily or final cover at landfills. In fact, the U.S. Environmental Protection Agency ("EPA") has referred to sewage sludge as a "valuable resource" and "a useful fertilizer and soil conditioner" for purposes including landscaping and reclamation projects. 58 Fed. Reg. 9249. EPA has also stated that, when used in these fashions and in compliance with the rule, sewage sludge produces virtually no adverse effects.

Given the federal initiative and constructive encouragement of such beneficial uses of sewage sludge, the proposed State rule should similarly recognize and support the same. Thus, subsection 6.3.3. should be revised to exempt from the disposal tariffs and fee assessments not only the use of sewage sludge as cover at landfills, but alternative beneficial uses of such material outside of disposal cell areas to aid in vegetative growth with regard to, among other things, facility landscaping and reclamation efforts. To this end, LCS urges the deletion of the subsection in its entirety and the substitution of the following language in its place:

> 6.3.3. All sewage sludge disposed of or processed pursuant to a permit issued by the division shall be subject to the same tipping and other fees levied by Chapter 20, Article 5F on the disposal of solid waste. Provided, that the use of sewage sludge for cover purposes or purposes including the use of such material to aid vegetative growth both within and without disposal cell areas at solid waste facilities shall be exempt from any tipping and other fees levied pursuant to Chapter 20. Only the fees established by 6.3.1. and 6.3.2. of these regulations shall apply to the application of sewage sludge or material derived from sewage sludge to land outside a solid waste facility, and shall be deposited in the "Water Quality Management fund established at Chapter 20, Article 5A, Section 6a.

III. CONCLUSION

LCS appreciates the opportunity to present these comments on the proposed legislative rules. We trust that our comments will be viewed as constructive in nature and directed toward improving not only West Virginia's program for sewage sludge management, but, further, the State's overall management of solid waste disposal.

Respectfully submitted on this 23rd day of June 1993.

Frank E. Williams
General Manager
LCS Services, Inc.
North Mountain Landfill
P. O. Box 1070
Hedgesville, WV 25427
(304)754-9153

WEST VIRGINIA
MANUFACTURERS ASSOCIATION

SUITE 503
405 CAPITOL STREET
CHARLESTON, WV 25301
TELEPHONE (304) 342-2123

June 22, 1993

West Virginia Division of
Environmental Protection
Office of Waste Management
Attn: Bill Rheinlander
1356 Hansford Street
Charleston, WV 25301

Re: Comments on Proposed Sewage Sludge Management Regulations

Dear Mr. Rheinlander:

Enclosed, please find for filing the comments of the West Virginia Manufacturers Association ("WVMA") regarding the Division of Environmental Protection's proposed sewage sludge management regulations filed on May 24, 1993.

I thank you for according the WVMA the opportunity to comment on these proposed rule revisions and invite you to contact me at your convenience should you wish to discuss any of these comments.

Very truly yours,

Robert L. Foster
WVMA, Chairman,
Environment, Safety & Health Committee

RLF:paj

Enclosure

cc: Karen S. Price, President (w/enclosure)

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Jun 23 3 05 PM '93

COMMENTS OF
THE WEST VIRGINIA MANUFACTURERS ASSOCIATION
REGARDING THE PROPOSED
SEWAGE SLUDGE MANAGEMENT REGULATIONS

Prepared By:

Environmental, Safety & Health Committee
West Virginia Manufacturers Association

and

Robinson & McElwee
600 United Center
Post Office Box 1791
Charleston, West Virginia 25326

Counsel for
West Virginia Manufacturers Association

June 22, 1993

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COMMENTS OF
THE WEST VIRGINIA MANUFACTURERS ASSOCIATION
REGARDING THE PROPOSED
SEWAGE SLUDGE MANAGEMENT REGULATIONS

I. INTRODUCTION

On May 24, 1993, the West Virginia Division of Environmental Protection ("DEP") filed with the Secretary of State a proposed legislative rule pertaining to sewage sludge management as authorized under the West Virginia Solid Waste Management Act at Chapter 20, Article 5F of the West Virginia Code ("the Act"). The rule is proposed for inclusion in the Code of State Regulations at Title 47, Section 38D.

The West Virginia Manufacturers Association ("WVMA") represents a broad cross-section of large, medium and small industrial concerns in West Virginia. Because certain of its members are subject to the Act, or indirectly affected by it, the WVMA has pledged to be involved in the development of these regulations. For example, many of our members are indirect dischargers to municipal publicly owned treatment works ("POTW's") which will be directly impacted by these rules. Many members also are dependent upon taking their sewage sludge to public or private landfills for disposal. It is in furtherance of our active and supportive role that the WVMA offers these comments.

II. COMMENTS

1. Section 6.3 (page 18) Fiscal Note; Fees

Section 20-5F-2b(b)(12) of the Act, authorizes the collection of fees calculated ". . . . to cover the costs of the sewage sludge management program." However, the Fiscal Note which accompanies the regulations does not indicate how DEP calculated the amount required to fund the sewage sludge management program. There are no breakdowns of costs contained in the rule, and no indication as to how the fees will be spent. For example, producers and importers of sewage sludge or material derived from sewage sludge which is to be land applied will be charged a disproportionately high per ton fee under Section 6.3.2, with no explanation of why such a high fee is necessary. Additionally, there is no statutory authority for the imposition of an "environmental remediation fee" as required under Section 6.3.1 of the proposed regulations, let alone any explanation for the fees imposed therefor. Consequently, the WVMA requests a detailed breakdown of the costs of implementing the sewage sludge management program, the deletion of the environmental remediation fee, and an explanation for the imposition of the particular fee on land application of sewage sludge so that it will be possible to judge whether such fee is being used for reasonable and necessary purposes to cover the costs of the program as statutorily mandated.

2. Section 1.5 (page 1); Incorporation by Reference

In order to maintain uniformity, clarity and consistency, this section should be revised to include the proviso that terms not defined in the state regulations

shall carry the definitions given them in the federal regulations at 40 C.F.R. Part 503 and inclusive of the appendices corresponding thereto.

3. Section 2.30 (pages 4-5); Person(s)

A typographical error appears in this section which defines the terms "person" or "persons". In order to conform this regulatory definition to its statutory counterpart, the last phrase of the Section should be changed from reading "or a legal entity whatever" to "or any legal entity whatever."

4. Section 3.2.1 (page 7); Land Application Siting Restrictions and Location Standards

The WVMA recognizes both the statutory and regulatory intent to develop a comprehensive program for the efficient regulation of sewage sludge, as opposed to industrial or other sludges. This legislative intent is clearly evidenced by the statutory mandate found at Section 20-5F-2b(a) of the Act, as well as the regulatory scope as evidenced in both the preamble to the proposed rule and in Section 1.1. However, Section 3.2.1 of the proposed regulations states, in pertinent part, that "sludge will not be applied to land. . ." In order to remain within its statutory and regulatory scope, the WVMA urges that this language be deleted and Section 3.2.1. be replaced with the following language: "sewage sludge shall not be applied to land that meets any of the following conditions:".

5. Section 3.5 (page 9); Storm Water Requirements

This section, as proposed, mandates that storm water drainage be directed around and away from any operating area and collected and discharged into a receiving stream under a DEP permit. As drafted, this section is unreasonably

narrow in its scope and requirements and, thus, does not allow facilities to discharge such storm water drainage by alternatively approved means (e.g., via a POTW or on-site tank collection). Thus, the WVMA urges the inclusion into this section of the following language immediately preceding the word "All" at the beginning of the second sentence: "Unless discharged to a publicly owned treatment works, or collected and contained on-site for transportation and disposal in a method approved by the Chief,".

6. Sections 4.1.2 and 4.1.3 (page 10); Permit Applicability

These subsections set forth a description of entities required to obtain a modification to existing permits for the processing of sewage sludge. Both of these subsections state that such permittees "will" obtain modification to their permit for such activities. However, in order to import clarity into these requirements, the WVMA respectfully suggests the deletion of the word "will" from these subsections and the substitution of the imperative "must" therefor. Additionally, reasonable and specific timeframes should be added to this section in order to fairly apprise the regulated community of its obligations and the DEP's expectations. Also, it should be noted that a typographical error appears in subsection 4.1.3 with the double appearance of the word "be" in the second to last line.

III. CONCLUSION

In these comments, the WVMA offers its position on a few key issues presented by DEP's proposed sewage sludge management regulations. These concerns all relate to the implementation of an efficient and fair regulatory program for the comprehensive management of sewage sludge in West Virginia. In this regard, the WVMA offers its full cooperation and assistance in refining the current regulatory proposal to as much a position of mutual acceptance as possible.

The Sanitary Board City of Parkersburg
125 NINETEENTH STREET • PARKERSBURG, WV 26101 • (304) 424-8535

June 23, 1993

Division of Environmental Protection
Office of Waste Management
ATTN: Bill Rheinlander
1356 Hansford Street
Charleston, WV 25301

Dear Sir:

We appreciate the opportunity to comment upon the proposed Sewage Sludge Management Regulations, and offer the following thoughts.

Fiscal Note Attached to Proposed Regulations:

We find it hard to believe there is "NO CHANGE" in the financial status of the DEP and "No impact" on government, industries and citizens, when there are fees proposed in Section 6 of the regulations which will require an annual expenditure of approximately $14,000 for Parkersburg. In addition to this amount in fees, there will be thousands of dollars more cost experienced each year in additional sampling, testing and record keeping in order to comply with the regulations. Without revision, Section 3.3 will require construction at wastewater plants which will necessitate expenditures of hundreds of thousands of dollars, or more, at each plant.

Paragraph 2.21:

The phrase "outside source" used in the definition of importer leaves much to be interpreted. For example, does a sewer utility's acceptance of septage make the utility an importer? Does a sewer utility's acceptance from another community of wastewater for treatment make the utility an importer? The term "outside source" should be defined.

Paragraph 3.2.1.e:

As it is written, this provision requires a 50 foot distance to be maintained from any roadway, travelled or not, that appears as a numbered roadway on a DOH highway map. In rural areas, there are numbered roadways which are rarely if ever used by the motoring public. In Wood County alone, there are several numbered roadways that have not been used as a roadway for years. It is overly restrictive to prohibit the application of sludge on fields within 50 feet of such a roadway when the roadway serves only as a way for the farmer to reach the field in the first place. It is also excessively restrictive to prohibit the application of sludge near unimproved roadways that are only rarely travelled.

Paragraph 3.2.1.h:

The phrase "unless adjusted to a pH of 6.2 or higher" should be added to this provision.

Paragraphs 3.2.1.j, 3.2.1.k and 3.2.1.l:

It is our understanding that Soil Conservation Service and/or DEP soils mapping can be used to identify the locations of conditions described in these paragraphs. If so, this is acceptable. If individual testing of each land application site is required, such a requirement would be excessive and unjustified in view of the mapping already available.

Paragraph 3.2.2:

It is our understanding that some people wish to include in this provision a requirement that sludge application sites be sampled and tested for metals concentration before any sludge application, and also tested for metals concentration for years after sludge application. At $150 to $200 per test, this would be a very significant and unjustified additional expense.

Paragraph 3.3.1.d:

By definition, most wastewater treatment plants are "sewage sludge processing facilities." As such, the requirements of 3.3.1.d will apply, particularly to a sludge dewatering and/or handling area. Few, if any, wastewater plants in the State meet these requirements. Compliance with these requirements will cost wastewater facilities across the State millions of dollars, and will provide precious little benefit to the environment.

Paragraph 4.1.1:

We are pleased to see it has been clarified that farmland on which sludge has been applied is not considered to be a solid waste facility.

Paragraph 4.2.1.g:

It should be clarified that the analysis of sludge for metals and toxins would be limited to those which are reasonably suspected to be present. To require sludge analysis for all heavy metals and all toxins just for the sake of analysis would be unnecessarily expensive and unjustified.

Paragraph 4.2.3.n:

To require an applicant to maintain and/or assure the maintenance of a soil pH of 6.2 or higher for at least 5 years after sludge application is excessive. It is not a requirement of the 503 regulations. In addition, many locations in the Wood County area have had a soil pH of less than 6.2 (sometime well below 6.2) for decades. To require us to adjust the pH to 6.2 or higher, AND to comply with paragraph 4.2.3.n is unjustified. In adjusting the soil pH to 6.2 and applying sludge, we will already have made a significant improvement to the soil. To require still more of us is not appropriate. To make it our responsibility to require the property owner to keep the pH above 6.2 for 5 years is impractical.

Paragraph 6.3.1:

It has been explained that those communities with pretreatment programs were required to establish the programs because they are more likely to have a sludge contamination problem, and thus should pay a higher remediation fee. The explanation is a weak one. First of all, the volume of flow (not the quality of sludge) determined that approximately 7 communities in West Virginia would be required to establish pretreatment programs. In addition, these communities are already spending an increasing amount of money each year to maintain a pretreatment program. Now these same communities are being told it is only reasonable for them to pay twice the fee of other communities which do not fund programs to monitor the quality of their commercial and industrial dischargers.

If there is to be a difference in the tonnage fee based upon whether a sewer utility maintains a pretreatment program, then the fee structure is opposite of what it should be. Those sewer systems which do not monitor the quality of industrial and commercial discharges have a greater risk of a sludge problem than those who do monitor.

Paragraph 6.2.3:

The sludge management program fee of $2.50 per ton required by this paragraph, in addition to the remediation fee of $1.00 per ton, will result in an annual fee of about $14,000 per year for the Parkersburg sanitary sewer system. This is approximately twice what the Energy Tax proposed by President Clinton would have cost us. The Energy Tax was considered to be unacceptable, but somehow these proposed sludge fees are considered to have "no impact" upon the public. We must disagree.

Many of those communities which are expected to pay the lion's share of the proposed fees for land application of sludge already have well established land application programs. They have been established, monitored and improved with the cooperation of the West Virginia University Extension Service and existing DEP personnel. We

are already paying the expenses associated with the successful operation of land application programs meeting the requirements of State and Federal agencies. We are required to perform and pay for all the field work, sampling, testing and record keeping required for these programs. In addition, we are required to provide this information to DEP and other agencies.

To be told now that we are expected to provide still another $350,000 per year to pay for an environmental analyst, data entry person and four inspectors to be hired by DEP to watch us do what we and existing State and WVU staff are already doing is beyond reason.

GENERAL COMMENT:

Senate Bill 288 was passed in order to comply with the wishes of some people in the northern panhandle who wanted to place a burden upon those who are transporting sludge into West Virginia for disposal. We sympathize with their situation. However, their zeal to exercise control over certain out-of-state interests is resulting in a significant and unnecessary additional financial burden upon those West Virginia communities which are operating legitimate sludge land application programs in the State.

We find these proposed regulations to be more restrictive in several areas than are the Federal 503 regulations. Some examples of this are pH adjustment of soil, proximity of sludge application to highways, soil slope requirements, agronomic rate or 15 dry tons per acre, whichever is less, and Section 3.3 of proposed regulations (liner requirements). We believe that State regulations in

excess of Federal requirements should be established with reason and sound justification, not simply based upon a number out of the air (15 dry tons per acre) and/or a special interest wish, the necessity of which is more preference than fact.

Very truly yours,

PARKERSBURG SANITARY BOARD

Clarence Cox, Jr.
Superintendent

cc: Mayor and Board Members
Jerry Domer, Treasurer
Wayne Boone, Supervisor

West Virginia Rural Water Association

P.O. Box 225 • Teays, WV 25569 • 304/757-0985

P-O-S-I-T-I-O-N S-T-A-T-E-M-E-N-T

TO: Director, Division of Environmental Protection

FROM: Board of Directors, WV Rural Water Association

SUBJECT: Proposed Emergency Sludge Regulations

DATE: June 23, 1993

The West Virginia Rural Water Association Board of Directors have adopted the following position concerning the proposed emergency sludge regulations as authorized by W.V. Code 20-5F-2b. (b).

The WVRWA has an active membership in excess of 200 utilities that serve populations of 10,000 or less. The following comments generally reflect the views of the Association members.

1. The WVRWA Board of Directors concurs with the need and necessity of a sewage sludge management program that protects the health and welfare of the residents of the State of West Virginia. However, the program must also be sensitive to the economic impact on sludge processing facilities through over-regulation and realigned design standards.

2. Paragraph 3.3, "Sewage Sludge Processing Facility Operational and Design Requirements.", does not allow for alternative plans for existing facilities. The conversion of existing drying beds would provide adequate capture of leachate as intended by the legislation; however, the proposed rules appear to be insensitive to alternate operations. It is the belief of WVRWA that promulgated rules that REQUIRE extensive new construction, should also provide the funding to implement the rule.

3. Paragraph 6.2, " Water Quality Management Fund", does not disclose the projected revenue that will be generated by the proposed fee assessments. WVRWA believes that full disclosure of the anticipated annual revenue derived from the generated municipal sewage sludge be made available to the public. The rule should designate the proposed allocation of the Fund. In considering the allocation of revenues, WVRWA strongly urges the Director of the DEP to set aside funds for the purpose of establishing an environmental training program that will benefit the wastewater treatment industry.

CITY OF SUMMERSVILLE
400 NORTH BROAD STREET
P.O. BOX 525
SUMMERSVILLE, WEST VIRGINIA 26651

TELEPHONE (304) 872-1211

JOHN STEVEN LEROSE - MAYOR

June 22, 1993

Attention: William H. Rheinlander
Office of Waste Management
Department of Environmental Protection
1356 Hansford Street
Charleston, West Virginia 25301

Dear Mr. Rheinlander:

With regard to Rule 47-38D-6, Fee Assessments, the City of Summersville would like to offer the following.

While the City understands that the D.E.P. must implement regulations governing sludge disposal within the state and must generate funds for the support of said program, we do not agree with the "tipping fee" rates or the basis on which the rate is calculated.

Under the current proposed regulations, the City of Summersville would have to pay $3.50 per **wet** ton of sludge disposal, which would amount to approximately $32,210.50 annually in additional charges to the City. The City of Summersville cannot afford to pay this amount at our current revenue rates. We would, therefore, be obligated to initiate rate increase proceedings to offset the additional costs which would be passed on to the customer at a rate of approximately $1.92 per month.

However, if your department would examine the possibility of the proposed "tipping fee" to be levied on a dry basis, which would be more in line with the City's cash flow, a rate increase may not be required.

Or, in the alternative, if the fee could be charged on a semi-dry or percentage basis, this may be a more economical method for all concerned treatment facilities throughout the state. It is our opinion a surplus of monies would be generated by this method.

Sue Maguire
Rt 1 - Bx 48
Auburn, WV 26325

June 22, 1993

Division of Environmental Protection
Office of Waste Management
1356 Hansford St.
Charleston, WV 25301
Attn: Bill Rheinlander

Comments on Sewage Sludge Management Regulations May 24, 1993-The proposed rule doesn't contain the necessary means for implementation of a comprehensive program for the regulation of sewage sludge mandated in WV code 20-5F-2.
pg. FISCAL NOTE FOR A PROPOSED RULE: 2.-There should be specific reference to enforcement of the rule for the state and on a county level.

4.B.1-The WVSWNB may be asked for grants to establish facilities.

B.2-Sewage sludge processing facilities will profit from importing sludge.

B.3-A certain volume should require a liner: not making operations cost prohibitive for POTW's.

C.-Public health and safety concerns could have great economic impact with the potential of pollutants being introduced into the environment.

pg.4; 2.28-There is a ban of municipal solid waste incineration in WV which includes sludge. delete definition

pg.5; 2.36-delete "incineration"

pg.7: 3.2-The standards are not strict enough to discourage large quantities of sludge from coming into the state. Especially when other states have stricter standards than 40 CFR, 503.

pg.8: 3.3.1.a-add "and air." after surface water

3.3.1.d.E.-add "unbiased" between professional/engineer

pg.12: 4.2.2.c.E.-add, a certain time limitation on storage

pg.13: 4.2.2.e.I.-add, actual weights

pg.14: 4.2.3.1.-add "describing the contents of effulent and all treatment thereof" after information

pg. 16: 5.4-delete, Subpart E-Incineration, 40 CFR,503. New solid waste facilities are prohibited from utilizing incineration technology.

pg.19: Appendix A-add, A monitoring system for material in route to a processing facility. Each truckload should be required to have a manifest showing location and time of travel. This will provide documentation of the material to help prevent contamination by illegal dumping of toxics into the sludge.

June 23, 1993

Mr. Bill Rhinelander
Office of Waste Management
Division of Environmental Protection
156 Hansford Street
Charleston, W. Va. 23301

Re: Sewage Sludge Management Regulations, Title 47, Rule 38D

Dear Sir;

I would like the following comments incorporated into the above regulations for clarity and protection of the citizens of West Virginia.

Page 4, paragraphs 2.22 snd 2.23 uses a term, "refuse derived fuel" which needs to be included with a definition in Section 2.

page 6, paragraph 2.44: add o end of paragraph..."and does not include pathogens, toxins or vectors in excess of Federal regulations 40 CFR, part 503.

Page 6, After paragraph 2.44 add definitions of the following terms used in the following paragraphs:

(1) "Vectors" Page 8, para. 3.3.1.b and 4.2.2.d.B.

(2) "other materials", Page 9, Para. 3.6

(3) "Kiln Dust"; Page 16,. Top of page, line 1.

(4). "Incinerator Ash" - Page 17, Para. 5.4.7. The definition needs to include which are allowable constituents and specified as to where they are allowed to be placed.

Section 3.2, Page 8, Para 3.2.3 - add the following to end of sentence: ....",however, the requirements of para. 3.2.2. of this section shall not be exceeded."

Section 3.3; Page 8, Paa 3.3.1.C. - delete "..unless provisions have been made to prevent the enroachment of flood waters upon the facility".

Page 9, para 3.6; add the following after the word " disposal" in sentence 5:..."The added blending materials shall be included in the total tonnage permitted at the landfill."

June 22, 1993
Tom Degen
HC 75 Box 324
Chloe, WV 25235

To: Bill Rheinlander
Office of Waste Management, DEP
1356 Hansford Street
Charleston, WV 25301

Enclosed are my comments on the Title 47 Series 38D Sewage Sludge Management Regulations:

Definitions

The definitions 2.8, 2.9, and 2.10 are confusing in that one cannot tell how they differ from the definitions of the corresponding solid waste facilities. Since sewage sludge is a solid waste, and since these definitions also include "mixed solid waste" within them, it is difficult, for example, to tell how 2.8 is different from 2.7.

Sewage sludge is generated at a much lower rate per person than is solid waste. There are approximately 250,000 wet tons per year, or 20,833 tons per month, of sewage sludge generated in West Virginia. 250,000 tons/yr divided by 1,800,000 people equals .14 tons per person per year. This equals 280 lbs/person/yr or 23 lbs/person/month or .78 lbs/person/day. When this figure is compared to the 4.82 lbs/person/day of solid waste that is generated, it becomes clear that to use the same sizing for sewage sludge facilities as for solid waste facilities results in an unrealistic oversizing of classes of sewage sludge facilities (by roughly six times). When enough capacity is added to that figure to maintain a 4:1 sludge to bulking agent ratio (by weight), the result is still an oversizing of about 5 times.

A sludge facility serving a population of 40,000 would be handling about 460 tons per month of sludge. If we round this up to 500 tons per month and figure in enough bulking agent to maintain a 4:1 sludge to bulking agent ratio by weight, a figure of 625 tons per month is arrived at for what might be called a Class C sludge processing facility. Similarly, the Class B facility would be more realistically capped at 2,000 tons per month, and the Class A facility would be more realistically capped at 6,000 tons per month.

I would recommend creating categories of sludge processing facilities that more accurately reflect the per person generation rate of sludge, and do not allow the inclusion of mixed solid waste in the operation. Different designations than the Class A, B, C, such as Class I, II and III would avoid confusion.

Those facilities handling mixed solid waste and sewage sludge should be given a separate status. This is probably already provided for in the landfill and mixed waste processing facility designations.

Storage

Storage is not defined or addressed adequately in these or the 503 regulations. There should be a time beyond which storage of sludge should be considered disposal. There should also be requirements for the storage of sewage sludge. This would vary according to a site's ability to handle the sewage sludge. It would seem reasonable that sewage sludge could not be stored directly on the ground at a land application site for as long as it could be stored at a processing facility equipped with a pad, or liner, or tanks, or a roofed area.

There should also be more strict storage requirements for unstabilized sludge. I offer the following: "Compost piles or windrows shall be constructed within one day following receipt of compostable material at the facility." Similar requirements could be promulgated for processes other than composting.

One year is long enough to be an absolute maximum storage time, and only for processed/stabilized sludge that is stored in such a manner that it is protected from rain and surface water, and that leachate from the sludge can be collected.

Septage should not be stored except within a tank, and then for only a short time such as overnight to two days.

Sludge should not be stored at a land application site beyond the end of the day that it arrives, unless some type of storage provisions are made such as a pad, liner, diversion ditches, and/or roof, or in a tank. In no event shall sludge be stored at an application site over one week, and in no event shall more sludge be stored on a site than is intended/allowed to be land applied.

Exemptions/variances

There are exemptions/variations throughout the rule, and they are too wide open. There should be some mechanism for the DEP to approve/deny/revoke them, and there should be provisions that the DEP give the rationale for granting exemptions and provisions for public notification and comment period when exemptions are applied for. In determining whether to grant a variance/exemption, it should be required that the DEP determine that no substantial health hazard is likely to occur. Also a provision that any variance granted will automatically expire after a predetermined time span, such as on December 31 of the calendar year in which it is granted. Following are some of my major specific concerns relative to exemptions/variances:

- 503.10(b)(1) says "The general requirements in §503.12 and the management practices in §503.14 do not apply when bulk sewage sludge is applied to the land if the bulk sewage sludge meets the pollutant concentrations in §503.13(b)(3), the Class A pathogen requirements in §503.32(a), and one of the vector attraction reduction requirements in §503.33(b)(1) through (b)(8)."

The basic idea is that "clean" sludge does not have to jump through the same hoops as "dirty" sludge. I find 503.10(b)(1) objectionable on several counts:

1. the pollutant concentrations in §503.13(b)(3) do not constitute "clean" sludge. West Virginia Code §20-5F-2(b)(6) requires "That no person or entity be allowed to apply sewage sludge to land in a manner that will result in exceeding the maximum soil concentration for all pollutants . . ." The 503 loading rates are not tied to existing soil concentrations in any way, which is contrary to the intent of S. B. 288. I have enclosed a table showing allowable concentrations for compost that Ontario and British Columbia have developed. When the Ontario concentrations, which are based on the average metals concentrations in rural soils, are examined, it becomes clear that the 503 numbers are not protective of existing soil conditions. Therefore, to base any exemptions on the pollutant concentrations in the 503 rule is misguided.

2. Regardless of which concentration numbers are used, the general requirements and sound management practices should be observed in all cases. Many of the informational requirements relative to reporting, labeling and notification are in these requirements. It is not possible to regulate a sludge program if applicators are not required to notify the permitting authority of their activities. While the management practices in 503.14 are

minimal, the idea that such basic practices as not applying sludge to floodplains, wetlands, on frozen ground, within certain distances of water, that practices such as requiring a label on sludge sold for land application, can be completely ignored without even receiving consideration from the permitting authority or the public, is unacceptable.

The exemption that 503.10(b)(1) provides is detrimental to the intent of S. B. 288 and the language should be stricken from any regulation that West Virginia promulgates concerning sewage sludge.

- 503.16(a)(2) authorizes the permitting authority to roll back the frequency of monitoring. This is based on the assumption that the facility would be receiving sludge from the same source(s) and there would emerge a pattern of consistency over a period of time. However, it would be helpful if this assumption was spelled out. Also, it should be stated that any time a facility receives sludge from a new source, the monitoring requirements would start anew.

- The 38D rule, in 3.3.1.c, allows for a facility to be constructed in the 100 year flood plain if ". . . provisions have been made to prevent the encroachment of flood waters upon the facility." It is not a good idea to site a solid waste facility in the 100 year flood plain, especially if it is one that handles mixed solid waste. Even if there are circumstances where it may be appropriate, there is no provision that the applicant petition for the variance or that the DEP has to evaluate the proposal, inspect the site, or that the DEP has the power to deny the variance. I recommend that the proviso be dropped.

Siting restrictions and location standards

Almost all these standards are inadequate when compared to other states' and are not protective of surface or groundwater or soil health. I submit the following:

Sewage sludge or septage must not be applied on snow, frozen or saturated ground, or during rainfall.

Land within 300 feet of surface water to include springs, ponds, wetlands, or other collection points for surface water.

Land within 1000 feet of drinking water supply wells or other personal water supply.

Land within 600 feet of an occupied dwelling when the owner's consent is obtained in writing, 1,000 feet when the owner's consent is not obtained.

Land that has tested and determined to have a pH of less than 6.5.

Land that has a slope greater than 15%. Land that has a slope greater than 6% but less than 15% may be approved for the surface application of sludge only when it can be shown that there is sufficient vegetation or vegetative residue to prevent ponding, runoff and other nuisances. The application equipment must be capable of uniformly applying the sludge on the slope to prevent ponding, runoff and other nuisances.

Land that has less than 36 inches of soil over bedrock or an impervious pan.

The restriction presented in §47-38D-3.2.1.1 is completely contrary to the intent and language of S.B. 288. West Virginia Code §20-5F-2(b)(6) requires "That no person or entity be allowed to apply sewage sludge to land in a manner that will result in exceeding the maximum soil concentration for all pollutants . . ." The 503 loading rates are not tied to existing soil concentrations in any way. I have enclosed a table showing allowable concentrations for compost that Ontario and British Columbia have developed. When the Ontario concentrations, which are based on the average metals concentrations in rural soils, are examined, it becomes clear that the 503 numbers are not protective of existing soil conditions, nor do they implement the intent or language of §20-5F-2(b)(6).

The Ontario numbers or the British Columbia numbers would satisfy the requirements of §20-5F-2(b)(6) much more so than would the 503 numbers, and I recommend that they be used.

POTW liner requirements

The liner requirements described in §47-38D-3.3.1.d. are inappropriate and prohibitive for the many small POTWs in the state. To have just this one liner requirement will force the smaller POTWs to use the services of a landfill or large commercial sludge processing facility. This will be expensive also, due to transportation costs and tipping and assessment fees, and erode the affected communities' self sufficiency.

By way of example, the Charleston POTW generates about 420 tons per month of sludge. This is one of the larger facilities in the state and is probably capable of complying with the proposed requirement. Most POTWs

in the state are considerably smaller. New Martinsville (pop. 6,000) generates 50 tons per month at 56% solids. Based on the New Martinsville figures, Grantsville (pop. 800) generates 6.5 tons per month at 56% solids. I don't know where to determine the cutoff point, but there has to be allowances made for small quantity generators, it is certainly not an uncommon feature in our state regulations. Such quantities as 6.5 tons per month certainly don't pose the environmental hazard that large quantities do. A spill at such a facility would be comparable to a land application. A reasonable liner for small POTWs would be concrete or asphalt over a clay or bentonite subbase. A 2 to 5% slope to a system of ditches for leachate collection. The requirement for 6 inches of reinforced concrete is only necessary to accommodate the concentrated weights that are encountered with unloading large trucks at commercial facilities. A small POTW processing its own sludge on site would not need the 6 inches of concrete for the processing area since there would not be large trucks delivering sludge. Perhaps a 6 inch pad for loading would be in order at some facilities that would require large trucks to haul the processed sludge away. Any such variances aimed at smaller facilities should prohibit the processing of mixed solid waste.

Applicability of permits

The language in §47-38D-4.1.3 is almost word for word the same language that was in the bill drafted by the DEP when it was first introduced during the 1993 regular session. That language was intentionally dropped from both the House bill and the Senate bill because it was viewed as a vehicle to grandfather in commercial sludge processing operations that had not undergone the pre-siting and siting requirements of the West Virginia Code. The House and the Senate both passed resolutions in reaction to the massive amounts of sludge that were being processed by commercial operations that had not undergone the siting and public approval requirements of the West Virginia Code. The fact that this language has been put into this rule demonstrates a blatant disregard for the Legislature of the State of West Virginia.

The way that 4.1.3 is worded, a solid waste facility handling relatively "benign" portions of the waste stream, such as a materials recovery facility or a yard waste composting facility, could handle sewage sludge just by filing a management plan. There is not even a provision that the plan needs to be approved by anyone! It is clear that in such instances, a certificate of site approval should be obtained, a Certificate of Need should be obtained, the site should be in a zone authorized by the local authority's siting plan for the operation, the public should be notified and have the opportunity for

comment and a hearing, and all other siting and permitting requirements provided for in the Code be should be met. If existing facilities are to process sewage sludge as a part of the existing solid waste permit, then it should be as a major modification which shall require submission of a new permit application subject to all the siting and permitting requirements of the West Virginia Code.

Bonding

Bonding for the processing facilities is covered in Section 3.13 of the Title 47 Series 38 rule. However, bonding for land application projects is not addressed at all in this rule except perhaps through the mechanism of the environmental remediation fee mentioned in 6.3.1. This mechanism appears to have the effect of making the DEP responsible for the environmental remediation. That is unacceptable; the idea is to make the party responsible for the pollution responsible for the remediation, not the taxpayers.

The fact that §20-5F-2b(b)(5) uses the words "may require a surety bond" indicates that there is to be some flexibility in the requirement of the bond. It is understood that such bonding is difficult to get, and it was not the intent of the legislature to require it of operations that are not likely to result in environmental degradation. With pollutant concentrations that truly implement the intent of §20-5F-2b(b)(6), such as the ones I have submitted herein, and with the agronomic rate requirement in 2b(b)(7), I would think that most land applications of the type and size currently being performed by POTWs would not be required to post a bond. The type of operation requiring bonding would be one that is more likely to threaten ground or surface water, soil health and the public health and safety. Such an operation would have the following characteristics:

* large applications of sludges,
* higher contaminant levels, such as British Columbia Concentration Codes 3 and 4, or Ontario's controlled-compost class for restricted use,
* involve applications above the agronomic rate, such as the rates up to 25 tons per acre per year that are allowed in the reclamation of surface mine land,
* involve sewage sludges that were processed with mixed solid waste,
* involve slopes between 6 and 15 percent

The bonding language from Title 47 Series 38, section 3.13 could be used with some minimal changes:

Title 47, Series 38, section 3.13.2.a could read "All bonds must be submitted under the requirements of these regulations on a form prepared and furnished by the director, must be made payable to the State of West Virginia, and must provide for continuous liability from the initiation of operations at the ~~facility~~ land application site for the full term of the ~~permit~~ operation and for up to ~~ten (10)~~ five (5) years after ~~final closure of the permit~~ operations have been concluded at the land application site. Any further time period necessary to achieve compliance with the requirements in the closure plan of the permit shall be considered an additional liability period."

Title 47, Series 38, section 3.13.13. could be reworded to reflect the amounts required for land application sites. I suggest a minimum of $50,000 and an amount of from one thousand to four thousand dollars ($1,000 to $4,000) per acre at the discretion of the director.

Fees

I have expressed my concerns over the remediation fee in the discussion of bonding, above. I feel the remediation fee as presented in §47-38D-6.3.1 should be eliminated in favor of the bonding that S. B. 288 contemplated.

The language in §47-38D-6.3.2 should be amended so that the fee is collected from the actual tons that are land applied.

§47-38D-6.3.3. places the fees collected from sewage sludge in the Solid Waste Enforcement Fund. The language in S. B. 288 states that "All sewage sludge . . . . be subject to the same tipping and other fees levied by this chapter. . ." There is no stipulation in the code that the solid waste assessment fees, the recycling assessment fee, and the solid and hazardous waste supplemental assessment fee all be deposited in the Solid Waste Enforcement Fund in the case of sewage sludge. It is clear that since sewage sludge is solid waste and subject to the "same .... fees" levied by chapter twenty on the disposal of solid waste, that these fees collected from sewage sludge be handled the same as the fees from other solid waste. The code is quite clear on how these fees are dedicated, and they are not all dedicated exclusively to the Solid Waste Enforcement Fund. I refer the reader to §20-5F-5a, §20-5N-4, §20-11-5a, and §20-11-5b. The way that §47-38D-6.3.3.3 is worded, funds are erroneously diverted from other programs. The section should be amended to accurately reflect the code.

This point aside, §47-38D-6.3.3.3 is still not clear. This section is where the intent of §20-5F-2b(e) must be implemented. That section of the code has been difficult to interpret since its drafting, but this rule does nothing to clarify how the DEP is going to implement it.

I was present at the legislature during the regular session and one of my primary focuses was the sludge bill. It was my perception that no party intended for Publicly Owned Treatment Plants (POTWs) to be considered and treated as solid waste facilities. The definition of Solid waste facility mentions "sewage sludge processing facilities", and "sewage sludge processing facilities" are defined as solid waste facilities, but a POTW is the generator of the sludge, not necessarily the processor. In the event that a POTW does process sludge, this is addressed in the definition of Composting facility by the language that states ". . . but does not include a facility for composting solid waste that is located at the site where the waste was generated." This language was put there for the express purpose of accommodating POTWs. Section 2b (c) further addresses this issue by allowing a POTW to have a sewage sludge processing permit as part of its NPDES permit and file a sludge management plan.

All sewage sludge received by a solid waste facility processing sewage sludge (except for POTWs processing on-site) should be subject to tipping and disposal assessment fees and be included in that facility's tonnage. At the time when sewage sludge that is intended for land application is actually land applied, then the facility could be credited for the disposal assessment fees. This should be less of a paperwork problem than waiting until a batch of sludge is processed and tests indicate that it is fit for land application before counting, or charging for, the sludge at all.

§20-5F-2b(12) provides that "The fee schedule shall vary according to the volume of materials handled and the contaminant level of the sewage sludge . . ." This proviso was crafted not only to encourage the production of a "clean" material, but to accommodate the smaller POTWs. This provision has been completely ignored in the 38D rule.

The material would still be included in the facility's tonnage, because in West Virginia a solid waste facility is defined according to how much solid waste it handles (see definition of Class A facility). Whether a sludge processing facility disposes of the product in a landfill, or markets all the finished product for land application, does not change the fact that the facility handled the tonnage that arrived at its gate.

As far as tipping fees are concerned, Section 2b (e) is confusing in that it seems to consider a tipping fee as something that is levied by Chapter Twenty of the Code. It is my understanding that a tipping fee is what the facility charges to meet its overhead and make a profit. If a sewage sludge processing facility has to charge a tipping fee in order to do business, it will be in big trouble if it has to refund that fee when the processed sludge is land applied. If the sludge processing facility is part of a landfill operation, then the facility should credit the customer for the portion of the fees that would have covered the placing of the sludge in a disposal cell. Or perhaps there could be a separate tipping fee for the processing of sewage sludge that would be charged when the material arrives at the facility, and the disposal tipping fee could be charged if and when the material is landfilled. In any case, the rates that a facility can charge are regulated by the PSC, and that is not provided for in Chapter Twenty. Has the PSC been consulted in the promulgation of this rule? If there is to be any regulation of tipping fees as a result of S. B. 288, it would seem that it would be the responsibility of the PSC.

Standards for application

The 38D rule has no operational standards for land application, which is a glaring deficiency. I propose the following:

1. Sludge shall not be held over-night or stockpiled at any site where application is planned. or . . . Sludge that is to be stored overnight at an application site shall be contained in a transfer-storage tank or day tank. In no event shall sludge be stored at an application site over one week.

2. Sludge must be incorporated into the soil as it is applied, or it may be applied onto recently plowed soil and be disced into the soil within twenty-four hours.

3. There shall be no application of sludge by spray irrigation except by special permit issued by the Chief showing that no substantial health hazard is likely to occur and unnecessary hardship will otherwise result.

4. There shall be no application of sludge except during the hours of daylight.

5. Entrances and exits to any field or tract of land on any site shall not be made through a roadside ditch.

6. All vehicles used for transporting sludge shall be so constructed and operated as to avoid spillage or discharge onto public roads. Any spillage which may occur on any roadway will be cleaned daily.

7. Haulers must maintain their vehicles so that there is not "track-on" to roadways, no spillage, and their appearance does not create a nuisance.

8. Public access to the land application site is prohibited for at least 12 months after the last application of sewage sludge or septage, and must be controlled during that period by the use of fences and gates, signs or posted signs. Dairy cattle must not graze for at least 12 months after the last application and other animals, excluding wild game, must not graze for at least two months after the last application.

9. Land application is permitted only when the beneficial value of the sewage sludge or septage as a supply of nutrients or as a soil conditioner can be demonstrated.

10. No sewage sludge may be disposed or applied so as to adversely affect the food chain, cause a health hazard, cause odors or allow vectors.

11. No crop for direct human consumption may be grown on sewage sludge or septage amended soil.

12. Tobacco may not be grown on sewage sludge or septage amended soil.

13. The DEP may revoke the applicator's permit for non-compliance or if a health hazard arises.

Miscellaneous

The incorporation of the Federal regulations 40 CFR part 503 is inappropriate and unwieldy for several reasons:

1. The part 503 rule was not supplied with the series 38D rule for public comment, so the public did not get a chance to really see what is being promulgated. There can be no effective comment on a rule that one has not seen.

2. S.B. 288 has many provisions that require the West Virginia rule to be more stringent than the federal rule. The incorporation of the 503 rule in full undermines the intent of the legislature.

3. The appropriate provisions of the 503 rule should be written into one regulation along with the 38D rule. This would avoid a lot of inconsistency and confusion as well as comply with the provisions of Title 153 Series 6 Standard Size and Format for Rules and Procedures for Publication of the State Register or Parts of the State Register.

§47-38D-4.1.4 defines surface disposal sites as "landfills" that must meet all requirements of Title 47, Series 38 applicable to landfills. This is fine as far as it goes, but in that case, the entire Subpart C of Part 503 should be deleted. Also, as a landfill, they should be subject not only to the Title 47 Series 38 rule, but all the relevant requirements of Chapters twenty and twenty-four.

§47-38D-4.1.2 leaves out the provision in §20-5F-2b(c) that the sewage sludge management plan be approved by the chief. This provision should be in the rule.

§47-38D-4.2.3.n. requires that soil pH be 6.2. This should be changed to 6.5. Every presentation I have heard concerning land application, whether it was given by proponents or opponents of the practice, has specified a pH of 6.5. New York and Pennsylvania both specify a pH of 6.5. That is the number we should use.

There should be language in the rule that exempts individual septic tank owners from the provisions of the rule.

There should be language in the rule that exempts farmers applying sludge in amounts below a specified level on their own farms from paying a fee and perhaps certain other provisions.

This rule and its concomitant incorporation of the 503 rule fails to implement the intent of S. B. 288 in so many ways, as I have noted in my comments, and is generally deficient in so many areas, that the DEP should withdraw this rule and promulgate one that will truly implement the intent of the legislature. With all due respect, I submit that with reference to the land application program, the Office of Waste Management does not have sufficient knowledge to promulgate rules or administer a program. Yet the Chief of the Office of Waste Management seems to have primacy over the program. The West Virginia Sewage Sludge Program: Use and Disposal of Municipal Wastewater Sludge, while it needs strengthening and funding, is a better foundation for a land application rule than is the 503 rule. The knowledge and expertise of the Office of Water Resources, the Office of Air Quality, WVU, the PSC, soil scientists, the Department of Agriculture, the

Solid Waste Management Board, the environmental community as well as representatives of the general public should be utilized in drafting a set of regulations that will truly provide for the efficient and necessary regulation of sewage sludge in West Virginia. If this rule is filed as it is, it will not protect us from the emergency that the legislature has declared, rather it will exacerbate the emergency.

This concludes my comments on the Series 47 Title 38D and the Federal regulation 40 CFR part 503 regulations.

Sincerely,

Tom Degen, member
Solid Waste Interagency
Coordinating Committee and
Composting Regulations Review Team

cc: Senator David Grubb
Delegate Brian Gallagher
Senator Don McNaughton
Ken Hechler, Secretary of State
Norm Steenstra, environmental coordinator, Citizens Action Group

TABLE 2: Metals and PCB Concentrations for MSW Compost in Ontario, British Columbia

	CONCENTRATION (mg/kg dry mass)				
	ONTARIO	BRITISH COLUMBIA CODE			
		# 1	# 2	#3	# 4
ARSENIC	≤ 10	≤ 13	> 13-30	> 30-50	> 50
CADMIUM	≤ 3	≤ 2.6	>2.6-10	> 10-20	> 20
CHROMIUM	≤ 50	≤ 210	>210-500	>500-800	>800
COBALT	≤ 25	≤ 26	> 26-100	>100-300	>300
COPPER	≤ 100	≤ 100	>100-300	>250-500	>500
LEAD	≤ 150	≤ 150	>150-500	>500-1000	>1000
MERCURY	≤ 0.15	≤ 0.83	>0.83-5	> 5-10	> 10
MOLYBDENUM	≤ 2	≤ 7	> 7-20	> 20-40	> 40
NICKEL	≤ 60	≤ 50	> 50-200	>200-500	>500
SELENIUM	≤ 2	≤ 2.6	>2.6-6	> 6-10	> 10
ZINC	≤ 500	≤ 315	>315-800	>800-1500	>1500
PCB	≤ 0.5	--	--	--	--

The maximum allowable metals concentrations for Ontario are based on the average metals concentrations in rural soils which are adjusted for desirable micronutrients. For example, the allowable zinc concentration was increased from 220 to 500 ppm because most soils are zinc deficient. At the moment Ontario has only the one class of MSW compost which can be used on an unrestricted basis; however, a controlled-compost class for restricted use is being considered. Some allowable metals concentrations for this class were increased as follows: arsenic becomes 20 ppm, cadmium 4, copper 100, lead 500, mercury 0.5, and molybdenum 3 (MOE, 1991).

British Columbia has proposed the use of the six classifications of MSW compost listed in Table 3 along with the use restrictions outlined in Table 4. Definitions of mature, semi-mature and fresh compost are provided in the British Columbia guidelines. Maximum acceptable cumulative limits of heavy metals applied to soils within a 45 year period were also established. If any one of the metal concentrations is exceeded, the compost falls in the next lower classification.

TABLE 3: Summary of British Columbia Compost Quality Classifications.

COMPOST TYPE	SS	A	B	C	D	E
METAL CONCENTRATION CODE	1	1	1 OR 2	1, 2 OR 3	1, 2 OR 3	4
FEEDSTOCK	SS	MSW	MSW	MSW	YW SS MSW	MSW
MATURITY	Mature, Semi-mature	Mature	Mature, Semi-mature	Mature, Semi-mature	Fresh	N/A
FOREIGN MATTER	≤ 1%	≤ 1%	≤ 2%	≤ 10%	≤ 10%	N/A
WATER CONTENT	≤ 50%	≤ 50%	≤ 50%	≤ 50%	N/A	N/A

MSW: Municipal Solid Waste; SS: Source Separated Waste; YW: Yard Waste.

TABLE 4: Summary of British Columbia Compost Use Restrictions by Classification.

CLASSIFICATION	RESTRICTIONS
SS and A	Unrestricted Distribution
B	Non-Food Applications: parks, forested lands, forest and horticultural nursery industry
C	Non-Food Applications: parks, forested lands, forest and horticultural nursery industry
D	Land Reclamation Projects with Limited Potential for Public Contact
E	Disposed of in Landfill

PART 503 NUMERICAL CRITERIA FOR LAND APPLICATION

ELEMENT	CUMULATIVE LOAD (kg/ha)	APL (Clean Sludge) (mg/kg)	APLR (kg/ha/yr)
Arsenic	41	41	2.0
Cadmium	39	39	1.9
Chromium	3,000	1,200	150
Copper	1,500	1,500	75
Lead	300	300	15
Mercury	17	17	0.85
Molybdenum	18	18	0.90
Nickel	420	420	21
Selenium	100	36	5.0
Zinc	2,800	2,800	140

APL - Annual Pollutant Load
APLR - Annual Pollutant Loading Rate

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Office of Waste Management

Attn. Bill Rheinlander
1356 Hansford Street
Charleston, W.V. 25301

Sewage Sludge regulations

I find the following general problems with theproposed regulations;

1. No use of identified sound scientific data used for classifing A,B,C facilities no status of sludge management in the state; total amount dry or wet ton, methods of disposal(% landfilled, incinerated, land applied, lime stablized, or composted) amount of suitable land available.

2. 4.2.3d Agreement, Vertical integration allows for abuses in the system, resulting in under reporting, subsitution of materials

3. No elimination of sludge from landfills. Yard waste will be banned. Sludge is more noxious. In a sealed environment of al landfill anarobic conditions drive the pH down, this creates a hazardous leachate and generates abundant methane. We should continue weaning sludge from landfills.

4. Overreliance on C.F.R. 503.12, no explainations, interpretations or decisions--- nothing to comment on.

5. Centralization of authority within D.E.P No local involvement or recourse. Authority, respondsibility, and the beare of consequences are all separate.

6. No evidence of integration with other composting regulations or guidelines.

thank you for your consideration,

Dr. John Hannon Martin,

Attached is an outline for a sludge management program from the Waste reduction task committee of the S.W.M.B. This was submitted for discussion purposes to D.E.P. Max Robertson, November, 1992.

WEST VIRGINIA SLUDGE APPLICATION PROGRAM

GOAL; RETURNING USEFUL PRODUCTS TO THE SOIL
placing authority and resources where the responsibility lies, locally.

- MORITORIUM ON LAND APPLICATION OF SLUDGE (TWO YEARS) Present demonstration programs can continue meeting in state needs and upgraded. Definition of program occurs during this time. Training and certification of haulers and appliers occurs.

- REFERENDUM ON ACCEPTING LAND APPLICATION IN A HOST COUNTY ('95) this should encourage local informed debate.

- ESTABLISHMENT OF LOCAL ADMINISTRATIVE BODY
  a good example; the local Solid Waste Authorities

- ESTABLISHMENT OF LOCAL WATCHDOG GROUP
  concerned people are responsible for the issues (within parameters they can close operation)

- DETERMINATION OF AREAS SUITABLE FOR LAND APPLICATION
  SWA, SCS and the Extension Service provided at a fee

- DETERMINATION OF ACCEPTABLE LOADING RATE LIMITS
  Land Grant University provided at a fee

- AGREEMENTS WITH LANDHOLDERS
  preliminary acceptance followed by firm contract with local administrative body

- REQUEST OF QUALIFICATIONS FROM HAULERS AND APPLIERS

- SLUDGE APPLICATION PLAN approved by state Board

- LOCAL BROKERING OF SERVICE FOR CONTRACT

  - REQUEST FOR BID FOR HAULERS AND APPLIERS

    - INDEPENDENT OF ASSESSMENT

    - PURCHASE OF BOND

  - PURCHASE OF LIABILITY INSURANCE

  - IMPLEMENTATION REFERENDUM
    [illegible]

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WEST VIRGINIA SLUDGE APPLICATION PROGRAM

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    - INDEPENDENT OF ASSESSMENT

    - PURCHASE OF BOND

  - PURCHASE OF LIABILITY INSURANCE

  - IMPLEMENTATION REFERENDUM
    [illegible]

Sycamore Landfill, Inc.
4301 Sycamore Ridge Road
Hurricane, West Virginia 25526

Telephone
304-562-2611

Fax
304-562-2358

June 21, 1993

West Virginia Division of
Environmental Protection
Office of Waste Management
Attn: Bill Rhinelander
1356 Hansford Street
Charleston, WV 25301

Dear Bill:

Enclosed please find our comments and suggested changes to the proposed Sewage Sludge Management Regulations Title 47, Series 38D. The following sections from the proposed regulations are of a concern to us; suggested changes and additions have been supplied:

3.2.1.f: It is our feeling that the land application of sewage sludge should be allowed up to the boundary of a facilities' property, so long as all surface water is directed back to the facility. These boundary areas are in need of sludge application, and to restrict them from such benefits would seem unnecessary if proper run-off procedures are followed.

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required. This requirement would mean that a landfill operator would need to construct a liner system on top of their already existing liner, which would be excessively costly.

3.3.1.d.D: It is our feeling that if the processing of sewage sludge is done over a lined area, that the construction of a concrete pad would be unnecessary, so long as all leachate generated from the sludge is handled in accordance with the solid waste regulations as they pertain to leachate. If the installation of this concrete was intended to ensure ease of access and dumping, it would seem as though there are more cost effective ways to maintain access without the finality of 6" of poured concrete.

3.6.1: The 25% requirement would seem not to apply to the land application, or the processing of sewage sludge, because the sludge is never being comingled with the daily waste that is being disposed of. If the intent of this requirement was to limit total amounts of sludge to be handled at a landfill, then this item is already covered, as is seen in the inclusion of sludge in a facilities' monthly tonnage limitation. This requirement is also difficult to comply with due to the fact that the tonnage of waste and the tonnage of sludge coming into a facility on a daily basis vary, and cannot be estimated with any degree of certainty.

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4.2.3.1: We feel that our customers, as sludge generators, have the right to maintain the privacy as to who their customers are. Many of the generators of sludge will not be willing to release such proprietary information about who their industrial users are. General information should be supplied by generators, but due to fierce competition, and the fact that any information submitted to the WVDEP becomes public record, this requirement may cause generators to use out of state facilities where such information is not requested or required.

5.1.1.b: What sampling parameters will be used and what detection limits will be set? Will this mirror the Federal 503 guidelines?

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6.3.3: Insert after the word "Fund", and before the word "except" the following:

provided that the fees established by 6.3.1 and 6.3.2 shall not apply to sewage sludge or material derived from sewage sludge which is disposed of in a solid waste landfill facility or land applied in or on a disposal cell in a solid waste landfill facility which has been issued a permit for the operation of a solid waste landfill facility pursuant to the provisions of chapter 20, Article 5F, Section 5.

These changes distinguish the difference between landfills and other disposal and processing facilities. Landfills already pay assessment fees and taxes for such things as environmental remediation, water resources control, and enforcement activities.

Appendix A: The frequency of monitoring proposed is excessive; this is due mainly to the extremely high cost of running analytical tests. Unless the water quality management board will pay for the analytical work, we propose the following:

Less than 290 tons per year- Analyze once every 12 months
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1,500-15,000 tons per year- Analyze once per quarter (4 times per year)
15,000 or more tons per year- Analyze once per month (12 times per year)

These are all of the proposed changes that we have currently. We sincerely hope that these are taken into consideration when the final regulations are made. If you have any questions, or would like further clarification of any of these issues, please call.

Sincerely,
Sycamore Landfill, Inc.

David Newman
Operations Manager

LWV

LEAGUE OF WOMEN VOTERS OF WEST VIRGINIA

1127 MONTROSE DRIVE • SOUTH CHARLESTON, WV 25303 • TELEPHONE 304-744-8787

June 21, 1993

To: Division of Environmental Protection

Re: Proposed Sludge Regulations

The League of Women Voters of West Virginia wishes to make a few suggestions pertaining to the proposed sludge regulations.

Approval of sites for disposal should be contingent on not adversely affecting sites where endangered or threatened species are located. The federal standards refer to this requirement.

Where a Wellhead Protection Program is in place, an applicant for disposing sewage sludge should be required to confer and get approval from the committee in charge of the Wellhead Protection Program if the sludge is to be disposed of in the Wellhead area.

Are compost toilets covered in the definitions section? These could be either private or public. The disposal of the compost from these toilets should be regulated.

KL/HG

Karen Lukens, President

1127 Montrose Drive
South Charleston, WV 25303
744-8787

Helen Gibbins, Natural Resources
6128 Gideon Rd.
Huntington, WV 25705
736-3287

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... of Waste ...

Brooke County Sanitary Landfill

RD# 2, Box 410
Colliers, WV 26035
Tele: (304) 748-0014
Fax: (304) 748-0005

"If It's Service, it's Us"

June 17, 1993

Mr. William Rheinlander
Information Representative
Department of Commerce, Labor and
Environmental Resources
Division of Environmental Protection
Office of Waste Management
1356 Hansford Street
Charleston, WV 25301

Dear Mr. Rheinlander:

The proposed sludge regulations offer the State of West Virginia the opportunity to develop a comprehensive program for the beneficial reuse of a waste. However certain sections of the proposed regulations are counter productive and will have an adverse impact on the beneficial reuse of municipal sludge and cost of waste water treatment.

The following sections need eliminated or changed:

a) 3.2.1.h and 4.2.3.n. restricting use to soils with a PH greater than 6.2. Normal Brooke County soil ranges from PH 5.2 to PH 7.2 and compost use should be permitted on soils with a PH of 5.0 or greater.

Compost and sludge contain considerable alkalinity which is beneficial to acidic soils. The concept that oxidation of sulfides and acid rain can over a long period of time neutralize the add alkalinity and return the soil to the original low PH has been proposed. The concern expressed is that the neutralization of the alkalinity causes the compost residual to ultimately be exposed to the original low soil PH condition with the potential for acid leachating of the heavy metals present in the compost or sludge.

This leachating of heavy metals from compost residuals is not possible at normal acid soil PH's of 5 or greater because the metals are oxidized and not soluble in measurable levels. The TCLP procedure uses a strong acid solution to extract soluble metal ions from a waste. Any material that passes the TCLP procedure is not going to leach metals at soil PH levels of 5 or greater.

This section of the regulation would prevent using compost on acid mine spoils that would greatly benefit from both the organic matter and alkalinity present in the compost or sludge.

b) 3.2.1.i. prohibits the use of sludge on slopes greater than 15%. Should change to read: Prohibit placement of sludge on slopes which would allow the sludge to flow. For example 40% solid sludge will be stable on a much steeper slope than 20% solid sludge.

c) 3.2.1.k. prohibits the use of sludge on less than 20" of soil over bedrock or an impervious pan. The environmental reason for this restriction is not apparent. These are generally the poorer quality soils that would most benefit from sludge or compost.

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e) 3.3.1.d. Liner system is required in any area containing sludge or products in direct contact with the ground. Buildings and other work areas under roof need to be excluded from the liner requirements.

f) 3.3.1.d.D. Final surface shall consist of at least a six (6) inch slab of reinforced concrete with a leachate collection network.

Section 3.3.1.d.D. is an example of how inappropriate a specific method of accomplishing a goal is in regulations. The unstated purpose of this section is to provide a durable all weather work surface that protects the liner system and provides a method for leachate collection. The regulation should be changed to: "The final surface shall consist of an all weather durable working surface that fully protects the liner system (3.3.1.d.B.) and provides a means of collecting the leachate."

The claim by the West Virginia Department of Environmental Protection that there is no economic impact from the proposed regulation is not correct. There are considerable taxes and fees imposed by the regulations that will be paid by the citizens of West Virginia. Also without the above proposed changes, the cost of disposing sludge through land application and composting will be unnecessarily increased with no associated environmental benefits.

Since clean water is the goal of everyone and all water treatment processes generate sludge, any unnecessary cost imposed on the disposal of sludge will be an added financial burden on cleaning the waters of our state and country. These costs are ultimately paid by the citizens.

Thank you for this opportunity to comment on the proposed sludge regulations.

Sincerely,

David C. Brown, P. E.
Engineer Manager

DCB/jk

TABLE 3: Summary of British Columbia Compost Quality Classifications.

COMPOST TYPE	SS	A	B	C	D	E
METAL CONCENTRATION CODE	1	1	1 OR 2	1, 2 OR 3	1, 2 OR 3	4
FEEDSTOCK	SS	MSW	MSW	MSW	YW SS MSW	MSW
MATURITY	Mature, Semi-mature	Mature	Mature, Semi-mature	Mature, Semi-mature	Fresh	N/A
FOREIGN MATTER	≤ 1%	≤ 1%	≤ 2%	≤ 10%	≤ 10%	N/A
WATER CONTENT	≤ 50%	≤ 50%	≤ 50%	≤ 50%	N/A	N/A

MSW: Municipal Solid Waste; SS: Source Separated Waste; YW: Yard Waste.

TABLE 4: Summary of British Columbia Compost Use Restrictions by Classification.

CLASSIFICATION	RESTRICTIONS
SS and A	Unrestricted Distribution
B	Non-Food Applications: parks, forested lands, forest and horticultural nursery industry
C	Non-Food Applications: parks, forested lands, forest and horticultural nursery industry
D	Land Reclamation Projects with Limited Potential for Public Contact
E	Disposed of in Landfill

PART 503 NUMERICAL CRITERIA FOR LAND APPLICATION

ELEMENT	CUMULATIVE LOAD (kg/ha)	APL (Clean Sludge) (mg/kg)	APLR (kg/ha/yr)
Arsenic	41	41	2.0
Cadmium	39	39	1.9
Chromium	3,000	1,200	150
Copper	1,500	1,500	75
Lead	300	300	15
Mercury	17	17	0.85
Molybdenum	18	18	0.90
Nickel	420	420	21
Selenium	100	36	5.0
Zinc	2,800	2,800	140

APL - Annual Pollutant Load
APLR - Annual Pollutant Loading Rate

Office of Waste Management

Attn. Bill Rheinlander
1356 Hansford Street
Charleston, W.V. 25301

Sewage Sludge regulations

I find the following general problems with theproposed regulations;

1. No use of identified sound scientific data used for classifing A,B,C facilities no status of sludge management in the state; total amount dry or wet ton, methods of disposal(% landfilled, incinerated, land applied, lime stablized, or composted) amount of suitable land available.

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Sycamore Landfill, Inc.
4301 Sycamore Ridge Road
Hurricane, West Virginia 25526

Telephone
304-562-2611

Fax
304-562-2358

June 21, 1993

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Environmental Protection
Office of Waste Management
Attn: Bill Rhinelander
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David Newman
Operations Manager

LWV

LEAGUE OF WOMEN VOTERS OF WEST VIRGINIA

1127 MONTROSE DRIVE • SOUTH CHARLESTON, WV 25303 • TELEPHONE 304-744-8787

June 21, 1993

To: Division of Environmental Protection

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Helen Gibbins, Natural Resources
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Brooke County Sanitary Landfill

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"If It's Service, it's Us"

June 17, 1993

Mr. William Rheinlander
Information Representative
Department of Commerce, Labor and
Environmental Resources
Division of Environmental Protection
Office of Waste Management
1356 Hansford Street
Charleston, WV 25301

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Sincerely,

David C. Brown, P. E.
Engineer Manager

DCB/jk

Tyler County Solid Waste Authority
P. O. Box 126
Middlebourne, WV 26149
June 22, 1993

Reference: Proposed Rule, Title 47, Series 38D,
"Sewage Sludge Management Regulations"

Office of Waste Management, DEP
Attn: Bill Rheinlander
1356 Hansford Street
Charleston, WV 25301

Dear Mr. Rheinlander:

General Comments -

Until last year the large volumes of sludge from New York and New Jersey were dumped in the ocean, now they have to find a new place for it. Unless it can be proved that the environment in New York and New Jersey is more fragile than in West Virginia, the West Virginia regulations must be equivalent to those of these states. Potentially huge quantities of sludge could be brought to West Virginia. These states and others that have responsibly handled large quantities of sludge, have rules built from experience. If West Virginia takes on these problems, the same rules are needed now.

There are no consequences for non-compliance; these are a must.

A sewage sludge processing facility should annually (in the summer time, on a Saturday) have a day when the public can inspect the facilities, ask questions, and receive answers. The owners, managers, and appropriate DEP representatives should be there.

The groundwater monitoring wells must be working and checked regularly.

The treated leachate must be monitored to prove statistically that it meets required standards.

The sludge should be brought to a ph of 6.2 before it is applied to the soil.

Specific Reference Comments -

3.1. Incorporates Federal regulations 40 CFR part 503 as in effect on the effective date of these rules. The 503 rules aren't that good. Perhaps a better way would be to use the best of them as part of these rules.

One would hope 503 rules would only get better; if these rules or any other rules are incorporated, they should apply as amended.

3.2.1.a. Delete , "unless the applicant can demonstrate to the Director that the land application will not cause runoff into streams or wetlands."

3.2.1.b. Amend to, "Land within 300 feet ..."

3.2.1.c. Amend to, "Land within 300 feet ..."

3.2.1.d. Amend to, "Land within 300 feet of an occupied dwelling."

3.2.1.f. Amend to, "Land within 200 feet of an adjacent owner's property line without written consent."

3.2.1.h. Amend to, "Land that has been tested and determined to have a ph of less than 6.5."

3.2.1.j. Amend to, "Land that has a seasonal high groundwater less than 5 feet from the surface."

4.2.1.g. Heavy metals, pathogens, toxins, vectors: These rules should define what tests are made, how often they are made, and what would keep it from being accepted at the facility.

4.2.2.e.J. There must be testing and reporting to show this is working. It must meet a standard.

5.1.1.f. Amend to, "Requirements to retain records for the facility for a minimum of thirty years."

Thank you.

Sincerely,

James D. Van Camp

James D. Van Camp
Vice-Chairman Tyler Co. SWA

TABLE 3: Summary of British Columbia Compost Quality Classifications.

COMPOST TYPE	SS	A	B	C	D	E
METAL CONCENTRATION CODE	1	1	1 OR 2	1, 2 OR 3	1, 2 OR 3	4
FEEDSTOCK	SS	MSW	MSW	MSW	YW SS MSW	MSW
MATURITY	Mature, Semi-mature	Mature	Mature, Semi-mature	Mature, Semi-mature	Fresh	N/A
FOREIGN MATTER	≤ 1%	≤ 1%	≤ 2%	≤ 10%	≤ 10%	N/A
WATER CONTENT	≤ 50%	≤ 50%	≤ 50%	≤ 50%	N/A	N/A

MSW: Municipal Solid Waste; SS: Source Separated Waste; YW: Yard Waste.

TABLE 4: Summary of British Columbia Compost Use Restrictions by Classification.

CLASSIFICATION	RESTRICTIONS
SS and A	Unrestricted Distribution
B	Non-Food Applications: parks, forested lands, forest and horticultural nursery industry
C	Non-Food Applications: parks, forested lands, forest and horticultural nursery industry
D	Land Reclamation Projects with Limited Potential for Public Contact
E	Disposed of in Landfill

PART 503 NUMERICAL CRITERIA FOR LAND APPLICATION

ELEMENT	CUMULATIVE LOAD (kg/ha)	APL (Clean Sludge) (mg/kg)	APLR (kg/ha/yr)
Arsenic	41	41	2.0
Cadmium	39	39	1.9
Chromium	3,000	1,200	150
Copper	1,500	1,500	75
Lead	300	300	15
Mercury	17	17	0.85
Molybdenum	18	18	0.90
Nickel	420	420	21
Selenium	100	36	5.0
Zinc	2,800	2,800	140

APL - Annual Pollutant Load
APLR - Annual Pollutant Loading Rate

Office of Waste Management

Attn. Bill Rheinlander
1356 Hansford Street
Charleston, W.V. 25301

Sewage Sludge regulations

I find the following general problems with theproposed regulations;

1. No use of identified sound scientific data used for classifing A,B,C facilities no status of sludge management in the state; total amount dry or wet ton, methods of disposal(% landfilled, incinerated, land applied, lime stablized, or composted) amount of suitable land available.

2. 4.2.3d Agreement, Vertical integration allows for abuses in the system, resulting in under reporting, subsitution of materials

3. No elimination of sludge from landfills. Yard waste will be banned. Sludge is more noxious. In a sealed environment of al landfill anarobic conditions drive the pH down, this creates a hazardous leachate and generates abundant methane. We should continue weaning sludge from landfills.

4. Overreliance on C.F.R. 503.12, no explainations, interpretations or decisions--- nothing to comment on.

5. Centralization of authority within D.E.P No local involvement or recourse. Authority, respondsibility, and the beare of consequences are all separate.

6. No evidence of integration with other composting regulations or guidelines.

thank you for your consideration,

Dr. John Hannon Martin,

Attached is an outline for a sludge management program from the Waste reduction task committee of the S.W.M.B. This was submitted for discussion purposes to D.E.P. Max Robertson, November, 1992.

WEST VIRGINIA SLUDGE APPLICATION PROGRAM

GOAL; RETURNING USEFUL PRODUCTS TO THE SOIL
placing authority and resources where the responsibility lies, locally.

- MORITORIUM ON LAND APPLICATION OF SLUDGE (TWO YEARS) Present demonstration programs can continue meeting in state needs and upgraded. Definition of program occurs during this time. Training and certification of haulers and appliers occurs.

- REFERENDUM ON ACCEPTING LAND APPLICATION IN A HOST COUNTY ('95) this should encourage local informed debate.

- ESTABLISHMENT OF LOCAL ADMINISTRATIVE BODY
  a good example; the local Solid Waste Authorities

- ESTABLISHMENT OF LOCAL WATCHDOG GROUP
  concerned people are responsible for the issues (within parameters they can close operation)

- DETERMINATION OF AREAS SUITABLE FOR LAND APPLICATION
  SWA, SCS and the Extension Service provided at a fee

- DETERMINATION OF ACCEPTABLE LOADING RATE LIMITS
  Land Grant University provided at a fee

- AGREEMENTS WITH LANDHOLDERS
  preliminary acceptance followed by firm contract with local administrative body

- REQUEST OF QUALIFICATIONS FROM HAULERS AND APPLIERS

- SLUDGE APPLICATION PLAN approved by state Board

- LOCAL BROKERING OF SERVICE FOR CONTRACT

  - REQUEST FOR BID FOR HAULERS AND APPLIERS

    - INDEPENDENT OF ASSESSMENT

    - PURCHASE OF BOND

  - PURCHASE OF LIABILITY INSURANCE

  - IMPLEMENTATION REFERENDUM
    [illegible]

Sycamore Landfill, Inc.
4301 Sycamore Ridge Road
Hurricane, West Virginia 25526

Telephone
304-562-2611

Fax
304-562-2358

June 21, 1993

West Virginia Division of
Environmental Protection
Office of Waste Management
Attn: Bill Rhinelander
1356 Hansford Street
Charleston, WV 25301

Dear Bill:

Enclosed please find our comments and suggested changes to the proposed Sewage Sludge Management Regulations Title 47, Series 38D. The following sections from the proposed regulations are of a concern to us; suggested changes and additions have been supplied:

3.2.1.f: It is our feeling that the land application of sewage sludge should be allowed up to the boundary of a facilities' property, so long as all surface water is directed back to the facility. These boundary areas are in need of sludge application, and to restrict them from such benefits would seem unnecessary if proper run-off procedures are followed.

3.2.1.i: Pertaining to the application of sewage sludge within an active landfill disposal cell, it is our belief that this requirement is too strict, since the final slopes of many landfills, as approved by the WVDEP, are steeper than 15%. We recommend that for sludge applications within active landfills some leeway be given based on site specific conditions and design.

3.3.1.d.C: We proposed that for any solid waste landfill facility which is in compliance with the solid waste regulations, and has an existing liner system either of clay or synthetic material, that this extra liner construction not be

required. This requirement would mean that a landfill operator would need to construct a liner system on top of their already existing liner, which would be excessively costly.

3.3.1.d.D: It is our feeling that if the processing of sewage sludge is done over a lined area, that the construction of a concrete pad would be unnecessary, so long as all leachate generated from the sludge is handled in accordance with the solid waste regulations as they pertain to leachate. If the installation of this concrete was intended to ensure ease of access and dumping, it would seem as though there are more cost effective ways to maintain access without the finality of 6" of poured concrete.

3.6.1: The 25% requirement would seem not to apply to the land application, or the processing of sewage sludge, because the sludge is never being comingled with the daily waste that is being disposed of. If the intent of this requirement was to limit total amounts of sludge to be handled at a landfill, then this item is already covered, as is seen in the inclusion of sludge in a facilities' monthly tonnage limitation. This requirement is also difficult to comply with due to the fact that the tonnage of waste and the tonnage of sludge coming into a facility on a daily basis vary, and cannot be estimated with any degree of certainty.

4.1.3: We feel that any solid waste landfill facility that is seeking a sewage sludge processing or land application permit, should be able to do so throught a minor permit modification, not a major modification

4.2.1.g: Regarding the requirement to provide data as to the levels of chemical constituents in the sludge, it does not seem practical to have the facility operator disclose this information, when it is the responsibility of the generators to certify to the processors that excessive levels of the listed constituents are not in their waste streams. Therefore we suggest that, as in the landfill minor permit modification process, the generators be responsible for certification of the quality of their waste.

4.2.2.b: Regarding disclosure statements: It is our feeling that if a facility is seeking a major modification of an existing solid waste landfill permit which the WVDEP has issued, and for which disclosure statements have already been submitted and approved, in an effort to save time in the

permitting process that the submission of the same disclosure statement not be required. This waiver could only apply if the principal owners and operators holding the existing permit were the same as for the proposed sewage sludge/land application permit being sought.

4.2.3.b: When is this information pertaining to nitrogen content to be determined, when the sludge is coming into the facility?, when it is land applied?, after it has been composted?, or when it leaves the facility for use at another location? How often will this need to be determined?

4.2.3.1: We feel that our customers, as sludge generators, have the right to maintain the privacy as to who their customers are. Many of the generators of sludge will not be willing to release such proprietary information about who their industrial users are. General information should be supplied by generators, but due to fierce competition, and the fact that any information submitted to the WVDEP becomes public record, this requirement may cause generators to use out of state facilities where such information is not requested or required.

5.1.1.b: What sampling parameters will be used and what detection limits will be set? Will this mirror the Federal 503 guidelines?

5.3.2: Operating solid waste landfill facilities should not be limited as to the amount of sludge that can be accepted or land applied, if the facility demonstrates the ability to properly handle, apply, and or process the amounts of sludge brought to the facility. In the instance of an operating landfill, many areas which have received the land application of sludge will probably be re-opened to achieve final and desired grades, while other areas that need to be matured to elevations are being landfilled. This means that an operating landfill has the ability to properly and effectively consume more sewer sludge than facilities such as farms or on strip mine reclamations, where the loading rate will be exceeded if multiple applications of sludge are made. Landfills are the exception to the rule because once the sludge is applied, allowed to sustain revegetation, and dries considerably, it in effect becomes a perfect cover material, which if removed from one area of the landfill to allow further placement of waste can be reutilized as intermediate type cover elsewhere. Then the area from which the dried sludge was removed can accept another application of the sludge to once again sustain revegetation.

6.3.3: Insert after the word "Fund", and before the word "except" the following:

provided that the fees established by 6.3.1 and 6.3.2 shall not apply to sewage sludge or material derived from sewage sludge which is disposed of in a solid waste landfill facility or land applied in or on a disposal cell in a solid waste landfill facility which has been issued a permit for the operation of a solid waste landfill facility pursuant to the provisions of chapter 20, Article 5F, Section 5.

These changes distinguish the difference between landfills and other disposal and processing facilities. Landfills already pay assessment fees and taxes for such things as environmental remediation, water resources control, and enforcement activities.

Appendix A: The frequency of monitoring proposed is excessive; this is due mainly to the extremely high cost of running analytical tests. Unless the water quality management board will pay for the analytical work, we propose the following:

Less than 290 tons per year- Analyze once every 12 months
290 to 1,500 tons per year- Analyze once every 6 months
1,500-15,000 tons per year- Analyze once per quarter (4 times per year)
15,000 or more tons per year- Analyze once per month (12 times per year)

These are all of the proposed changes that we have currently. We sincerely hope that these are taken into consideration when the final regulations are made. If you have any questions, or would like further clarification of any of these issues, please call.

Sincerely,
Sycamore Landfill, Inc.

David Newman
Operations Manager

LWV

LEAGUE OF WOMEN VOTERS OF WEST VIRGINIA

1127 MONTROSE DRIVE • SOUTH CHARLESTON, WV 25303 • TELEPHONE 304-744-8787

June 21, 1993

To: Division of Environmental Protection

Re: Proposed Sludge Regulations

The League of Women Voters of West Virginia wishes to make a few suggestions pertaining to the proposed sludge regulations.

Approval of sites for disposal should be contingent on not adversely affecting sites where endangered or threatened species are located. The federal standards refer to this requirement.

Where a Wellhead Protection Program is in place, an applicant for disposing sewage sludge should be required to confer and get approval from the committee in charge of the Wellhead Protection Program if the sludge is to be disposed of in the Wellhead area.

Are compost toilets covered in the definitions section? These could be either private or public. The disposal of the compost from these toilets should be regulated.

KL/HG

Karen Lukens, President

1127 Montrose Drive
South Charleston, WV 25303
744-8787

Helen Gibbins, Natural Resources
6128 Gideon Rd.
Huntington, WV 25705
736-3287

RECEIVED
JUN 28 1993
...n of Environmental Prote...
... of Waste ...

Brooke County Sanitary Landfill

RD# 2, Box 410
Colliers, WV 26035
Tele: (304) 748-0014
Fax: (304) 748-0005

"If It's Service, it's Us"

June 17, 1993

Mr. William Rheinlander
Information Representative
Department of Commerce, Labor and
Environmental Resources
Division of Environmental Protection
Office of Waste Management
1356 Hansford Street
Charleston, WV 25301

Dear Mr. Rheinlander:

The proposed sludge regulations offer the State of West Virginia the opportunity to develop a comprehensive program for the beneficial reuse of a waste. However certain sections of the proposed regulations are counter productive and will have an adverse impact on the beneficial reuse of municipal sludge and cost of waste water treatment.

The following sections need eliminated or changed:

a) 3.2.1.h and 4.2.3.n. restricting use to soils with a PH greater than 6.2. Normal Brooke County soil ranges from PH 5.2 to PH 7.2 and compost use should be permitted on soils with a PH of 5.0 or greater.

Compost and sludge contain considerable alkalinity which is beneficial to acidic soils. The concept that oxidation of sulfides and acid rain can over a long period of time neutralize the add alkalinity and return the soil to the original low PH has been proposed. The concern expressed is that the neutralization of the alkalinity causes the compost residual to ultimately be exposed to the original low soil PH condition with the potential for acid leachating of the heavy metals present in the compost or sludge.

This leachating of heavy metals from compost residuals is not possible at normal acid soil PH's of 5 or greater because the metals are oxidized and not soluble in measurable levels. The TCLP procedure uses a strong acid solution to extract soluble metal ions from a waste. Any material that passes the TCLP procedure is not going to leach metals at soil PH levels of 5 or greater.

This section of the regulation would prevent using compost on acid mine spoils that would greatly benefit from both the organic matter and alkalinity present in the compost or sludge.

b) 3.2.1.i. prohibits the use of sludge on slopes greater than 15%. Should change to read: Prohibit placement of sludge on slopes which would allow the sludge to flow. For example 40% solid sludge will be stable on a much steeper slope than 20% solid sludge.

c) 3.2.1.k. prohibits the use of sludge on less than 20" of soil over bedrock or an impervious pan. The environmental reason for this restriction is not apparent. These are generally the poorer quality soils that would most benefit from sludge or compost.

d) 3.2.1.l. prohibits the use of sludge on soil with a permeability of less than 0.6 inches/hour ($4.23X10^{-4}$ cm/sec) and greater than 6 inches/hour ($4.23X10^{-3}$ cm/sec). What possible logic could require a soil permeability restriction? A very high permeability that could allow nitrates to enter the ground water? This remote concern is addressed in the agronomic rate calculations. This section should be eliminated.

e) 3.3.1.d. Liner system is required in any area containing sludge or products in direct contact with the ground. Buildings and other work areas under roof need to be excluded from the liner requirements.

f) 3.3.1.d.D. Final surface shall consist of at least a six (6) inch slab of reinforced concrete with a leachate collection network.

Section 3.3.1.d.D. is an example of how inappropriate a specific method of accomplishing a goal is in regulations. The unstated purpose of this section is to provide a durable all weather work surface that protects the liner system and provides a method for leachate collection. The regulation should be changed to: "The final surface shall consist of an all weather durable working surface that fully protects the liner system (3.3.1.d.B.) and provides a means of collecting the leachate."

The claim by the West Virginia Department of Environmental Protection that there is no economic impact from the proposed regulation is not correct. There are considerable taxes and fees imposed by the regulations that will be paid by the citizens of West Virginia. Also without the above proposed changes, the cost of disposing sludge through land application and composting will be unnecessarily increased with no associated environmental benefits.

Since clean water is the goal of everyone and all water treatment processes generate sludge, any unnecessary cost imposed on the disposal of sludge will be an added financial burden on cleaning the waters of our state and country. These costs are ultimately paid by the citizens.

Thank you for this opportunity to comment on the proposed sludge regulations.

Sincerely,

David C. Brown, P. E.
Engineer Manager

DCB/jk

Tyler County Solid Waste Authority
P. O. Box 126
Middlebourne, WV 26149
June 22, 1993

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Sincerely,

James D. Van Camp

James D. Van Camp
Vice-Chairman Tyler Co. SWA

"Out-of-State Garbage"

Why is it that "good," "just," "right," and "logic" seems to always give way to "greed," "injustice," "wrong," and "stupidity."? The pure indignity of the matter begs for "reasonable" resolution. "I'm going to take my garbage and dump it in your yard." "NO"! you emphatically say, "You can't do that, you are violating my property, my birthright, my ecology, and my natural resources. You must dispose of your own garbage in your own way and you cannot and will not violate my land."

Certainly, a reasonable dumper would agree with the dumpee and, in fact, personal property law would most likely support the dumpee's position and enforce the requirement that the dumper dump his trash elsewhere. Makes sense, seems reasonable--and the outcome described is supported by logic, justice, and good common sense.

Why is it then that when we elevate this illustration to the State level it becomes okay for one state to dump its garbage in another state. How can a citizen or a government official of West Virginia support the hills and valleys of this incredibly beautiful landscape being defiled by the trash and sludge of your sister states? Shame on you!

Of equal concern is the mentality of those in other states who think it's okay to dump one state's garbage in another state. Are the Pocono's of Pennsylvania more pristine than the hills of West Virginia? Let's haul garbage to the Pocono's, the Adirondack's, the Alleghenies, the Catskills . . . Let's defile Western Maryland, Southern New Jersey, the Berkshires of Massachusetts, the White's of New Hampshire and the Green's of Vermont . . . NO!, you say, . "you can't do that because you would violate the natural beauty, the ecological balance, and innumerable laws".

Ah, but I can in West Virginia.

Why is that? Interestingly, it is not the "Government" of any locality or state that is sending garbage to West Virginia. No, it is free enterprise that has turned West Virginia into the toilet bowl of the East. The

greedy Free Enterprise Set and stupid West Virginia politicians create a marriage made in heaven for the greedy Free Enterprise Set. The Free Enterprise Set is greedy because all they are about is making money. They charge municipalities in the congested Northeast corridor exorbitant fees to dispose of garbage and other waste (some of it hazardous). There is more waste created than can be disposed of at local facilities. What do they do? Well, they can build new facilities locally (at great expense, with stringent ecological requirements and high "tipping" fees) or they can haul the garbage and dump it elsewhere, someplace, say, where the "tipping" fees are peanuts, the ecological consequences are of no concern, and where I get little or no resistance from GOVERNMENT. Bingo! I'll dump my garbage in West Virginia. They (the State Government of West Virginia) welcome me, charge me very little, and have NO MECHANISM of SURVEILLANCE or AUDIT to monitor my compliance with any guidelines that might be in place. Can you imagine how the mind of the Free Enterprise Set must be boggled at the thought? Imagine, paying Wetzel County West Virginia 50 cents per ton (Yes, 50 cents per ton) to fill its landfill with garbage and other waste from other states. Just how stupid can the Government of West Virginia be to allow such an indignity?

If you're going to be the toilet for the Northeast, at least have the dignity and business acumen to be an EXPENSIVE toilet. Participate in the FREE ENTERPRISE SYSTEM. MAKE MONEY! GET YOUR SHARE! BE SMART! PLAY THE GAME! MATCH GREED WITH GREED!

Does anyone ever stop to think how the Free Enterprise Set can afford to BUY TRUCKS, HIRE DRIVERS, PAY SLICK LAWYERS, and DONATE significant sums of money to local charitable causes all in the name of dumping garbage in West Virginia instead of New York? Hello..o..o..o! There is a lot of money in garbage, and the Free Enterprise Set is growing RICH at the expense of the PEOPLE of West Virginia. WAKE UP West Virginians! Demand your share of the pie. Either get your share in an economic sense or PROTECT YOUR BIRTHRIGHT, YOUR ECOLOGY AND YOUR NATURAL BEAUTY. Do not allow yourselves to be had by those who care nothing about you or your State. Let every citizen be heard and let the message be loud and clear, "We will not be fooled by the Free Enterprise Set." Either our State gets RICH from your stinking garbage or you haul it BACK FROM WHENCE IT CAME.

Right, Justice, Common Sense, and Logic are on your side. Stupid politicians, slime lawyers, and greedy entrepreneurs are your foe. Good will always win out over evil.

Fight the fight now, before it's too late. Man can destroy in a decade what Mother Nature took millenniums to create. Do not allow the RAPE of West Virginia by the Free Enterprise Set go unchallenged. She's a beautiful state, West Virginia; a good State, and she deserves better than she's getting.

Remember the song, "The West Virginia Hills":

1. *We all have treasures*
   We call our own
   Mine are these hills
   I call my home
   Just let me live
   Till eternity
   in these hills
   God walks with me

2. *Yes, He walks these hills*
   These beautiful hills
   Where my soul is always free
   What a comfort to know
   You're never alone
   Cause God walks these hills
   With Me

Good luck and Godspeed,

Signed, Bob & Helen Burgess
RR 2 Box 21
New Martinsville, WV
26155

"A West Virginian At Heart"

CITY OF WHEELING

WHEELING, WEST VIRGINIA 26003

June 23, 1993

Division of Environmental Protection
Office of Waste Management
1356 Hansford Street
Charleston, WV 25301
Attn: Bill Rheinlander

Hand Delivered

RE: Comments on Sewage Sludge Management Regulations

Dear Mr. Rheinlander:

The proposed Sewage Sludge Management Regulations (Title 47, Series 38D) which are the subject of the public hearing, will have a dramatic impact on how Publicly Owned Treatment Works (POTW) operate in West Virginia. The City of Wheeling operates a wastewater treatment plant that produces approximately 8,000 tons of sewage sludge annually. Our current disposal method is to haul this waste to a licensed landfill and bury it. We believe this practice is not the best environmental solution for the disposition of this waste product in West Virginia, nor will it be the most economical for cities in the future as landfill tipping fees increase.

The City of Wheeling requested modifications to our landfill and NPDES permits which would allow us to develop a more economical and environmentally sound solution to our sludge disposal process. These permit modification requests were submitted prior to the legislative amendments to § 20-5F-2b of the West Virginia Code and the solutions were being designed to be consistent with, and meet all the requirements of Federal Regulations 40 CFR Part 503, which regulate sewage sludge.

Federal Regulation 40 CFR Part 503 recognizes and regulates different processing methods for sewage sludge and the disposition of the resultant product to insure environmentally sound and safe solutions to the problem. The regulations proposed by the Department of Environmental Protection appear to go beyond 40 CFR 503 in permit requirements for sewage sludge processing facilities and land application requirements. These extensions beyond the requirements of 503 will create extreme hardships on West Virginia communities attempting to resolve sludge handling problems consistent with the Federal EPA 503 regulations, and may eventually cause all sludge to be dumped into landfills.

The federal regulations recognize that there are better and more productive solutions than landfilling sewage sludge. Sewage sludge can be processed in a number of ways under the 503 regulations to end up with a very safe product for beneficial re-use. Once a processed product meets very rigid federal standards, it becomes safe for re-use in almost any environment for land application.

The federal regulations establishes two levels of sewage quality, Class A and Class B. Under the Part 503 regulation, fewer restrictions are imposed on the use of higher quality sludge (Class A.) In regard to land application, the federal regulations state *"A number of general requirements and management practices apply to sewage sludge that are land applied with the exception of 'Exceptional Quality' sewage sludge ..."* The 503 regulations states under Distributed and Marketed Products "... sewage sludge or material derived from sewage sludge that is considered suitable for distribution and marketing (D&M) for uses on lawns and home gardens, either in bulk or container form, must meet the Class A pathogen reduction requirements, a vector attraction reduction processing option, and the Pollutant Concentration limits (with the exception that sewage sludge which meets the pollutant Ceiling Concentrations, but no the Pollutant Concentration limits, can be sold in bags or other containers for use at sludge application rates prescribed on a label that are based on not exceeding the Annual Pollutant Loading Rates.) The Class A pathogen reduction requirements must be met at the time the bulk or containerized products are "sold or given away."

If sewage sludges are of "Exceptional Quality" - meet the Pollutant Concentration limits, Class A pathogen reduction requirements and a vector attraction reduction processing option - they are <u>usually exempt</u> to the general requirements and management practices applicable to land application practices.

The proposed West Virginia regulations do not seem to distinguish the categories of sludge between the Class A (Clean Sludge or Exceptional Quality) and Class B categories as do the Part 503 regulations. Nor do the West Virginia regulations provide incentives for West Virginia POTW's to produce Class A end products.

The fees associated with the regulation process again become a factor in the processing of sewage sludge to the Class A or 'Exceptional Quality' level, and should provide incentives for POTW's to produce a Class A product which is both beneficial to the producer and to the state. Anything less than a Class A or regulated Class B sewage sludge can be detrimental to the future of West Virginia environmentally.

The City of Wheeling hopes the Department of Environmental Protection will seriously consider the comments made at the public hearing and submitted in writing regarding the proposed regulations and make good constructive changes that will allow the City of Wheeling and other West Virginia POTW's to economically handle sludge disposal problems consistent with the environmentally sound solutions provided by 40 CFR Part 503.

I have attached to this letter a list of specific concerns with various sections of the proposed regulations, and would ask that these comments also be considered as part of the public record regarding the Title 47, Series 38D regulations.

Thank you for the opportunity to speak and submit comments regarding this very important issue for West Virginia.

Sincerely,

Jimmy E. Cumes
City Manager

Attachment

cc: Mayor Jack Lipphardt

City of Wheeling

Comments on proposed Series 38D Sewage Sludge Regulations.

2.13/2.14 - "Composting" should not be used as terminology. The terminology should reflect the new Federal 503 regulations. "P.F.R.P." or "E.Q.S." or "Class A" technologies are all terms that refer to a higher level of treatment.
This can include composting, Alkaline Pasteurization, or possibly pelletization. There are many other alternative technologies to composting, many are safer.
Does the definition of composting include N-Viro or do they recognize composting as an entirely different operation/process (which it is).
Similarly, "Composting Facility" means what? Can our operation be set up at another location in the same county and be considered part of the treatment plant or does it actually need to be connected. As P.F.R.P. treatment it could be argued that this was part of the wastewater treatment process.

2.25 - If a materials recovery facility does not include a composting facility, where would an N-Viro A.A.S.S.A.D. facility fall. Would it be considered a mixed waste processing facility?

2.33 - Sludge should be considered a recycled product after it has been subjected to an approved "Class A" treatment. At least with further restrictions (such as 50% solids content) this status should be attainable.

2.35 - How will incinerator ash be classified?

2.36 - This paragraph should include some of those technologies. "Alkaline Pasteurization" should be included. At this time there are only 8 In-Vessel composting facilities in operation in the country. There are over 30 Lime Pasteurization facilities.

2.44 - It does not appear that this article would allow lime sterilization to be performed, because when Lime Sterilization is wet it does give off offensive odors as does composted material. Alkaline Pasteurized material does not.

3.1 - Federal regulations set out a guideline for "Clean Sludge" or "E.Q.S." (exceptional quality sludge) with the intent to promote beneficial re-use. If the BIO-SOLIDS or products incorporating bio-solids are of a low enough contaminant level they are deemed safe enough for unrestricted sales. This will allow for the successful marketing of the final product. If the State of West Virginia would like to place more stringent requirements on these products, They might consider requiring a minimum of 50% dryness or a more restrictive fecal coliform count.

(3.1 con't) pH could also be a factor in this requirement. The N-Viro A.A.S.S.A.D. process is mentioned specifically in the E.P.A. 503 regulations as a E.Q.S. technology, where does West Virginia acknowledge this? (see E.P.A. 503 regulations attached).

3.2 thru 3.2.3. - These restrictions will eliminate the possibility of ever marketing sludge based products (even if generated locally) to the general public in the State of West Virginia. This is in direct opposition to the intent of the establishment of a "Clean Sludge" guideline. As this regulation is written, all technologies that seek to utilize the benefits of properly treated biosolids will fall under this restriction, regardless of the means by which the final product is produced or the final form that the product will take. Specifically:

3.2.1. This says "sludge will not be applied to land...". N-Viro Soil, or Alkaline Pasteurized Biosolids is a product and is not sludge.

3.2.1.e. - This will eliminate the possibility of the use of Alkaline Pasteurized Biosolids in Department of Transportation projects such as re-seeding after construction and for erosion control. This is one of the most exciting opportunities in the recycling of properly treated material.

3.2.1.g. - This restriction does not include any acceptable distance. If the run-off from the material is clean then this restriction would be unnecessary. There should at least be a table of acceptable distances and/or acceptable levels of contaminants in the runoff.

3.2.1.h. - This would eliminate the use of ALKALINE treated Biosolids on disturbed lands as a way of raising the pH. Such as around strip mines , construction sites and on reclamation projects. This seems to be intended for application of sludge that is acidic. It has been well documented that ALKALINE PASTEURIZED biosolids are an effective amendment product for raising the pH of lands like these. Even in one time applications.

3.2.1.i. - This would eliminate the use of these products for erosion control on slopes, a very appropriate use for some biosolids based products. This also has been documented.

3.2.1.k. - Again this would limit the use around strip mine areas (the areas in most need of soil amendment). N-Viro Soil, if blended with clay results in an acceptable topsoil material. It has a stable pH and exhibits the characteristics of soil.
Heavy Metals are bound in an insoluble metal hydroxide salt coating, much the same way as heavy metals present in any soil material. The contaminants are permanently bound (unless, as with native soils, they are heavily stressed with acid). N-Viro Soil has been used as landfill cover, structural/construction fill material, a soil amendment, ag-lime and fertilizer with no adverse affects to the environment.
Would this material (blended or unblended) qualify as soil that could be utilized to achieve this 20" requirement?
If so, then this restriction should not apply to land application of N-Viro Soil. (The U.S. E.P.A. has recognized Chemical Fixation as "the best demonstrated available technology to immobilize heavy metals".

(3.2.1.k. cont'd) Composting does nothing to immobilize heavy metals, in fact if the resulting compost is on the acidic side, heavy metals could continue to leach from this material indefinitely. Clearly the A.A.S.S.A.D. process deserves recognition above that of compost for land application for this reason.

3.2.1.1 - This seems overly restrictive and should have other parameters, such as depth of topsoil, clay or bedrock. In addition just as above, N-Viro Soil should be blended with this material to make a better product.

3.2.3. - These Dry Ton limits should not be so low for all circumstances. This may work for ag. application, but in strip mine reclamation applications and in some landfill cover or maintenance applications this could prevent the goal from being achieved. This should have additional parameters allowing certain quality material greater leeway.

3.3.1.a. - This makes no provision for clean runoff and does not define what level of contaminants are acceptable/unacceptable. In addition if the processing site is located at the landfill (which is already lined, with a leachate collection system, then this is redundant.

3.3.1.d through 3.3.1.d.D. - These restrictions could unnecessarily prevent the recycling of Biosolids in the State of West Virginia due to cost. Again "Clean Sludge" or E.Q.S. Biosolids should be treated differently than extremely contaminated "Class B" materials. These restrictions may be written for in-vessel composting. They are extremely restrictive and overly protective. The result will be increased costs that will cause clean re-usable Biosolids to be dumped in a landfill for disposal. Again, there should be exceptions for material that has been treated to a safer level or for material that may be "safe" before treatment.

3.3.1.d.b. - If the installation were on solid rock, would a clay liner still be required? Solid rock is certainly more impenetrable.

3.3.1.d.c. - What exactly defines a "Leachate detection zone?"

3.3.1.d.D. - A final surface should also have the option of being 8" of Dense Graded Aggregate (compacted) and 4" of Asphalt as an alternate to the 6" of concrete.

3.4.1. - The question again comes up - N-Viro Soil (or A.A.S.S.A.D. pasteurized Biosolids) is not sludge, and water that comes in contact with it should not have to be handled in any special manner. This has been repeatedly tested-and proven. This product can be stored in the open indefinitely.

3.6. thru 3.6.1. - This regulation does not take into account final product that may be used as landfill cover. Some Class A processes (like the N-Viro Process) result in a final product that is no more sewage sludge than gasoline is crude oil or wastewater is clean effluent.

(3.6 thru 3.6.1 cont'd) If this material were to be judged based on 25% of the total waste disposed of at the landfill, then once again an opportunity to recycle biosolids will have been lost. There should be restrictions on the suitability of Biosolids derived products as landfill cover (such as 50% dryness, compaction or permeability, pH, and vector attraction) this restriction is far to broad to be sensible.

4.1.3. This seems to say that the operation could be placed at the sewage treatment plant. Is this true?

4.1.5. - This paragraph should allow for variances of permits-by-rule at the discretion of the State.

4.2.1.g. - This should read (.....or final product)

4.2.1.h. - This is to restrictive for the sale of E.Q.S. material. This regulation will severely inhibit a marketing program for Class A or E.Q.S. products.

4.2.1.j. - This should read (....unless granted a variance by the State)

4.2.2. - Again, can the mixing operation for an A.A.S.S.A.D. facility be put at the wastewater treatment plant?

4.2.2.c.E and 4.2.2.c.F - These paragraphs should refer to "E.Q.S." or "P.F.R.P." or "Class A". There are other appropriate technologies and the word compost is not only a competitive advantage for compost system vendors, it is misleading.

4.2.2.c.H. - The N-Viro Process in Wheeling will use Fly Ash. This is not a "bulking agent". It is required for pH maintenance and for further drying. The definition of a bulking Agent should be clarified.

4.2.2.e.F thru 4.2.2.e.K - These regulations are written specifically for in-vessel composting systems. Not only do they fail to address other technologies they imply a preference from the State's perspective and are therefore unfair. They should be removed or amended appropriately.

4.2.3. - It is our understanding that under the Federal E.P.A.'s 503 regs. that P.F.R.P. processes such as the N-Viro A.A.S.S.A.D. do not require some of the regulations stated. In fact, N-Viro Soil is considered so safe that it is the only sludge based product available in the world that can offer Product Liability Insurance (through C.N.A. a national Underwriter). This at least demonstrates the level of safety that these products can achieve. (Please see attached 503 regulations, see note on page 8, 5th paragraph)

4.2.3.a. - If marketing a "Clean, E.Q.S., Class A" or other such treated final product this amount of information is unrealistic and will impede marketing efforts drastically.

4.2.3.c. - This is also overly restrictive. If the material qualifies as a clean material it is operationally impossible to provide this level of detail for every single end-use. These uses could be yards, maintenance on bare spots, construction sites etc. At the higher level of treatment Biosolids derived fertilizers, ag-limes, and soil amendment products are generally much "cleaner" than commercial fertilizers. Commercial products do not have this restriction and if the Biosolids derived products cannot compete on a cost and convenience basis, they will not be purchased and the recycling program will fail.

4.2.3.f and 4.2.3.g - Sometimes the owner of the property does not know this information. This is impractical!

4.2.3.i. - N-Viro Soil is not sludge!

4.2.3.n. This is another reason to establish a mechanism for higher application rates of E.Q.S. products. It has been repeated demonstrated that Alkaline Pasteurized Biosolids, for one, can improve the pH of acidic soils indefinitely after only one application. Carey Technologies has achieved this on soils with a pH as low as 2.3 with applications of 70 to 100 dry tons per acre. (relatively little considering the resulting vegetation and improvement of water quality- no additional applications have been required.

5.3 this whole section should exempt E.Q.S. products or at least set guidelines for cleaner or diluted materials.

5.3.4. - N-Viro Soil has been cleared by the 503's to be spread on food chain crops.

6.3.1 and 6.3.2 These fees should be reduced according to the level of treatment that the material has undergone. Land Applying Class B liquid is not the same as a farmer using a registered fertilizer made from Biosolids that have under gone treatment from a class A technology. The use of a fee system to support inspection and fund research is good, however these fees are excessive and could prevent recycling from taking place due to the competitive bidding process (it could always be cheaper to dispose of in the landfill). In addition by applying these fees "across the Board" the State is contributing to the removal of any incentive that a generator may have to seek a higher and safer level of treatment for his/her Biosolids. What exactly is a material derived from sewage sludge? This needs to be defined. Why do smaller operations subject to less treatment pay less than operations with pre-treatment requirements?

6.6.3. - Municipalities and Landfills should be able to make cover out of their own products--particularly if these products can be used without further permitting--according to the 503 regs. mentioned in this document.

Appendix A - Again these rates are excessive. Specifically the frequency of monitoring for 1,500 to 15,000 and over 15,000 dry ton facilities. It could be estimated that a facility generating over 15,000 dry tons per year would spend over $150,000 in testing alone. If these guidelines are not reduced it will contribute further to higher costs, again reducing the realistic opportunities to recycle this valuable (if properly handled) resource.

WETZEL COUNTY SOLID WASTE AUTHORITY
P.O. Box 192, Proctor, West Virginia 26055

Office of Waste Management, DEP
1356 Hansford Street
Charleston, WV 25301
Attention: Bill Rheinlander

June 16, 1993

Dear Mr. Rheinlander,

The Wetzel County Solid Waste Authority would like to submit the following comments regarding Title 47, Series 38D, "Sewage Sludge Management Regulations". While our authority recognizes the time constraints and the enormity of the task of promulgating these rules in a timely fashion, we also feel it is imperative that these rules and regulations reflect the intent and will of the legislature. They clearly do not.

In reviewing this document, we found so many gross inconsistencies not only between these rules and regulations and the intent of SB 288 but within the document itself that it was difficult to determine whether our recommendations should be to change specific passages or to start from scratch. We chose to offer specific comments as well as offer the strong suggestion that the writers of these rules and regulations go back to the drawing board and make the rule reflect the contents and intent of SB 288.

The Fiscal Note for a Proposed Rule states that there will be no fiscal change as a result of these rules and regulations. This statement is false. Up until the time the Office of Waste Management was transferred from the Division of Natural Resources to the Division of Environmental Protection, sewage sludge processed and placed at the Wetzel County Landfill was counted against the monthly tonnage and all applicable solid waste fees were applied.

After the transfer of the Office of Waste Management to the Division of Environmental Protection, sewage sludge processed and placed in the Wetzel County Landfill, with the exception of New Martinsville, Jefferson County Ohio, and Paden City, was exempt from all tipping fees and not counted against the monthly tonnage. There were many contracts either in the process of negotiation or already signed, but the one contract that was closely scrutinized was from Nassau County, New York. This single contract was for 108,000 tons of sewage sludge per year to come to Brooke and Wetzel counties. Until SB 288 was passed, Director Callaghan's policy of not counting sewage sludge composted at and placed in a solid waste facility was costing the state $1 million per year for the Nassau County contract

alone. It was costing the host county solid waste authorities $49,000 per year. Nassau County was the tip of the iceberg. We soon learned of a signed contract with Westchester County and proposed contracts with Jamaica, NY; Bergen County, NJ; to name a few.

These rules and regulations also impose fees upon local POTW systems for land application and remediation. These fees are substantially lower than landfilling. These rules and regulations would also require that extensive capital be spent to comply with stringent sludge containment requirements that could price small generators of sewage sludge out of the composting business. This entire provision is ignored under the fiscal note provision of B.1. Economic Impact on Political Subdivisions: No impact.

The Fiscal Note should give direct reference to the fees required to be collected by solid waste facilities processing sewage sludge that is required under 20-5F-2b(e). Using the figures from 1992, the fiscal note should include the programs that will benefit by resuming the policy of counting sewage sludge as solid waste when it is handled at a solid waste facility.

Our second specific objection is to 47-38D-1.5. where federal rules are incorporated by reference. One of the primary reasons other states are targeting West Virginia as a sludge depository is the lack of rules and regulations that are more stringent than 40-CFR-503. New York, New Jersey, Pennsylvania, Maryland, Ohio, Virginia and Kentucky are but a few states that have discovered the weakness in the EPA 503 rule and have established rules more stringent than current EPA guidelines. More importantly, there are specific portions of EPA 503 rule that are in direct contradiction to the mandate of West Virginia Code. These contradictions must be reconciled to reflect the legislative intent of West Virginia Code.

On page 2, section 2.8 of the proposed rule there is a definition of a "Class A Sewage Sludge Processing Facility". Since such a facility would be the same as a "Class A Facility", referred to in 2.7, we find the definition of a Class A Sewage Sludge Processing Facility to be redundant and respectfully request that it be removed from the definitions. Since sections 2.9 and 2.10 would also be classified as solid waste facilities, the definitions of Class B and C Sewage Sludge Processing Facilities would also be redundant. These two definitions should be eliminated as well.

On page 6, section 2.43 in the definition of "Source Separated Organic Materials", we would like to see the inclusion of the following language after the final word "septage." to be amended to "...septage, or wood waste that consists of treated lumber."

On Page 7, 47-38D-3 STANDARDS FOR USE, DISPOSAL AND PROCESSING OF SEWAGE SLUDGE starting with section 3.1 Incorporation of Federal Regulations; we must again vigorously object to the blind incorporation of 40 CFR part 503 rule. The 503 rule is not only in direct contradiction to the newly adopted SB288, but it is even weaker than existing rules for land application of sewage sludge currently administered under the Office of Water Resources, under the direction of Dr. Eli McCoy.

Section 3.2 also needs many changes. This section is also a watered down version of the current rule followed by Dr. McCoy. There are other more stringent models that would enhance the protection of West Virginians while protecting the on-going practice of small scale controlled land application of sewage sludge that has been occurring for years. The legislature intended to protect the current policy of 75% of the POTW's land applying sewage sludge with minimal impact. Our Authority supports the legislature's efforts to this end.

Our Authority suggest the following changes:

3.2.1.a. Should read, "Land that is frozen, snow-covered, or known to be flooded on a regular basis." Delete all subsequent language in this sub-section.

3.2.1.b. Amend to, "Land within 300 feet..."

3.2.1.c. Amend to, "Land within 1000 feet..."

3.2.1.d. Amend to, "Land within 1000 feet of an occupied dwelling or within 600 feet of an occupied dwelling with the signed consent of the owner of said dwelling.

3.2.1.e. Amend to, "Land within 50 feet of any public highway or road."

3.2.1.h. Amend to, "Land that has been tested and determined to have a pH of less than 6.5"

3.2.1.i. Amend to, "Land that has a slope greater than 6%."

3.2.1.j. Amend to, "Land that has a seasonal high groundwater table less than 5 feet from the surface."

3.2.2 refers solely to soil concentration limits referred to in the 503 rule. This is in direct contradiction to West Virginia Code 20-5F-2b(b)(6). The 503 language gives reference to the contaminants within the sludge applied without factoring in the pre-existing contaminants within the soil. 20-5F-2b(b)(6) specifically requires the DEP to do a statistical analysis of the pre-existing elements of the soil that will receive sludge.

It is the responsibility of the DEP to establish maximum loading limits and apply those limits based upon what already exists in the soil combined with the contaminants present in the sludge to be land applied. Should the combined total of contaminants within the soil and contaminants within the sludge exceed the maximum loading limits, land application at that site should be prohibited.

The Authority further recommends the following be added after 3.2.3., "3.2.4. No land within a solid waste

facility, but outside a landfill disposal cell, be allowed to accept the permanent application of so much sewage sludge as to exceed the agronomic rate or a rate of fifteen dry tons per acre per year, which ever is less." This language is lifted verbatim from the code and would prohibit the so called sludge dedication sites referred to in in 40 CFR section 503.

Section 3.3. SEWAGE SLUDGE PROCESSING FACILITY OPERATIONAL AND DESIGN REQUIREMENTS (beginning page 8)

3.3.1.c. Amend to, "The facility must not be operated or constructed within the one hundred year flood plain." Delete everything else.

In sections 3.3.1.d., including A.through E., our Authority supports these stringent specifications when they apply to large scale generators or importers, but when applied to small scale facilities, this yardstick seems inappropriate. While a household generates garbage that is collected in a container and that garbage generates lechate, the law doesn't require a home owner to build a miniature landfill. While construction and demolition landfills do require some environmental safeguards, they are not nearly as stringent as those that apply to solid waste landfills. By the same token, it is unfair to place small municipalities in the same playing field as major metropolitan areas. The environmental rule in West Virginia needs to incorporate the amount of sludge generated combined with the toxicity of any sludge generated or imported.

The Wetzel County Solid Waste Authority would support language that would adjust the environmental requirements according to the quantity and quality of sewage sludge generated. A good place to start would be to require sewage sludge processing facilities generating 500 tons per monnth or less to have an asphalt pad in lieu of the stringent liner requirements for larger facilities.

3.6. Amend to delete the final sentence, "Alternative sludge disposal methods can be utilized upon obtaining written approval from the chief." This gives the chief entirely too much latitude and exempts propsed disposal alternatives from public notification or comment.

47-38D-4 PERMITS REQUIRED

4.1.2. In order for this section to reflect the code, 20-5F-2b(12)(c), it should read as follows: "For those publicly owned treatment works (POTW) which produce sewage sludge and are regulated by the division pursuant to an NPDES permit required under article five-a of this chapter, a sewage sludge processing permit shall be a part of the existing water pollution control permit and shall include a sewage sludge management plan approved by the chief."

4.1.3. The Wetzel County Solid Waste Authority has many major problems with this section not only as it applies to Wetzel County but the impact it will have upon the entire state. Quite candidly, this sub-section creates wretched state policy.

The permit issued to the Wetzel County Landfill, permit #SW-1021-92 under E. Permit Conditions section 1. states "This facility has submitted the Module A (NPDES) Application....Incorporation of Module A into the Solid Waste Facility Permit is required and will constitute a "major modification" and all related regulatory requirements must be met thereunder.". Yet 4.1.3. states that "...a sewage sludge processing facility MODIFICATION WILL BE OBTAINED (emphasis ours) as a part of the existing solid waste permit and shall include a sewage sludge management plan.".

It treats a sludge processing facility as a minor modification. There are no provisions for public input, no requirement that such a drastic change in land use would have to comply with the county or regional solid waste authority's siting plan, no requirements of county or regional solid waste authority approval. Furthermore the language "will be obtained" nearly implies a mandate that the DEP grant a sludge processing facility modification to ANY permitted solid waste facility, be they a recycler, a transfer station or a landfill. The requirements for a permitted solid waste facility to receive a "sewage sludge processing modification" are less stringent than those required for POTWs under 20-5F-2b(12)(c). POTW's are required to receive a permit while permitted solid waste facilities are required by the proposed rule to only obtain a modification.

It is the opinion of the Wetzel County Solid Waste Authority that any permitted solid waste facility seeking to process sewage sludge should obtain a permit as required for POTW's, and that such a permit be subject to the provisions established within the local or regional solid waste authority's siting plan. If sewage sludge processing facilities are expressly or tentatively prohibited within the host county's plan, or the area proposed for sewage sludge processing has not been designated an acceptable area, the permitted facility must obtain approval from the regional or county solid waste authority before the DEP can issue the sewage sludge processing permit.

In the same manner POTWs are required to obtain an additional permit even though the volume of sewage and sludge remains constant, permitted solid waste facilities would be seeking a permit for a new activity upon a pre-existing site. They would still be bound by the tonnage limits and fees required in 20-5F-2b(12)(e). Obtaining a sewage sludge processing permit for a permitted solid waste facility should be treated as a MAJOR MODIFICATION to an existing solid waste facility permit and subject to the provisions of 3.18..

4.1.4. Amend after the words "Series 38..." by adding "and any and all Certificate of Need requirements as required by the Public Service Commission."

4.1.5. Should be amended to add provisions within the code that require public participation.

4.2. GENERAL, PROCESSING FACILITY, AND LAND APPLICATION PERMIT REQUIREMENTS.

4.2.1.i. Since the 503 rule is very weak in the area of quality control and this section references all of 40 CFR, Part 503, we recommend rewriting this entire section. This rewrite should include an analysis for heavy metals to include but not be limited to arsenic, cadmium, chromium, copper, lead, molybdenum, nickel and zinc and a testing for toxic and hazardous materials using toxic characterization and leaching property (TCLP) tests. Standards should also be established for refusing sludges that test too high for specific toxins or heavy metals.

4.2.2.a.A. Please amend to "A regional map, or maps (of appropriate scale that delineate SEWAGE SLUDGE PRODUCING AREA..." As this subsection reads now, a sewage sludge processing facility could simply locate every POTW sending sludge to their facility. This wouldn't reveal whether the POTW was receiving large quantities of waste water from industry or residents nor would it reveal the size of the population serviced. By amending the regional map to delineate the sewage sludge producing area, you will have a clearer picture of the types of customers feeding into any contributing POTW.

4.2.2.c.E. Please amend to include the following after the final word, "conditions;" to,"to include a landfill that will accept the unused product. Any finished compost may not be stored on site for a period of more than 120 days. After 120 days, any finished compost must be applied within accordance with these rules and regulations or landfilled;"

4.2.2.e.I. " The expected mass balance through the composting system;" should be deleted. This is the creation of a formula to anticipate the difference between the weight of uncomposted sewage sludge and the weight lost due to composting. We assume the purpose is to credit a solid waste facility for the compost that leaves the facility for land application purposes and exempt composted sludge leaving a solid waste facility from the fees required by 20-5F-2b(12)(e).

There are many problems with using such a blanket formula. All sludge is not equal. While our rules and regulations require sludge to be at least 20% solid by weight, the city of New Martinsville's sludge is over 50% solid by weight. If the formula used assumed that every ton of sludge processed was 20% solid by weight, it would take

five tons to equal one ton of sewage sludge subject to the tipping fees, while in many cases, the actual case would be two tons would equal one ton. The state would be losing $8.25 per ton for every ton that would slip through the cracks using this formula.

Furthermore, this formula assumes that all sludge will be composted effectively and the 80% water will be removed. Again, every miscalculation of this formula will result in a loss of revenues of $8.25 per ton to the state.

The only equitable way to compensate a solid waste facility for the compost that leaves the facility is to credit them for the actual weight that leaves the facility. Therefore, the Wetzel County Solid Waste Authority recommends the following replacement language for 4.2.2.e.1. "All applicable fees required by 20-5F-2b(12)(e) shall be paid as proscribed by this chapter on any sewage sludge entering a solid waste facility based on the actual weight of the sludge as it enters the facility. Any composted sewage sludge leaving the solid waste facility shall be weighed and the actual tonnage leaving the facility shall be deducted from the monthly tonnage and all fees as proscribed under 20-5F-2b(12)(e) shall be waived;". This language would specifically spell out your intent. It may be better placed in 47-38D-6 Fee Assessment, however we found no reference any place in these proposed rules and regulations that dealt with the fees mandated by 20-5F-2b(12)(e). Perhaps this language should be replacement language for 6.3.3.

4.2.3.n. Please amend "maintain the soil to a minimum pH of 6.5..." and include language for penalty assessments for non-compliance.

47-38D-5. GENERAL, PROCESSING FACILITY, AND LAND APPLICATION PERMIT REQUIREMENTS.

5.2.3. Kiln dust in many states is actually the ash from unregulated, unmonitored hazardous waste incinerators, since many cement kilns burn hazardous waste for fuel and have carved a neat little exemption for themselves under federal law. Our Authority would urge the prohibition of kiln dust from any sewage sludge processing facility, landfill, composting facility, or land application. If we do accept kiln dust, it should be treated as special waste and TCLP, heavy metal and most importantly PCB and dioxin testing should be done on any proposed acceptance of kiln dust. The most stringent standards we can find should be applied to kiln dust.

47-38D-6. Fee Assessment

6.1. Please amend "Any person required to obtain a solid was facility permit pursuant to these regulations" to "Any producer or importer of sewage sludge or product thereof

shall be subject to...". The purpose of this proposed amendment is to close any loophole that may exist in this proposed rule.

6.3.3. Please see our comments on 4.2.2.e.I. In addition, we object to the dedication of these fees solely to the Solid Waste Enforcement Fund. There are many other places these fees apply, specifically the 50 cents per ton to the host county solid waste authority not to mention the recyling fund the $1 per ton for the Solid Waste Management Board, the landfill closure fund to mention a few. The code, 20-5F-2b(12)(e), states that, "All Sewage sludge placed in, or upon, or used by a solid waste facility or processed or handled, pursuant to a permit issued by the division of environmental protection, shall be subject to the same tipping and other fees levied by this chapter on the disposal of solid waste..." Please note there is no codified dedication of fees solely to the Solid Waste Enforcement Fund. Furthermore, 6.3.3. ignores the inclusion of the optional host county fee that can be assessed.

A section that is missing from these regulations is 47-38D-7 Enforcement. There are absolutely no consequences under this rule for non-compliance. Our Authority suggests language be adopted to issue citations for non-compliance and place the offending generator or importer on a compliance schedule to remediate the violation. We further suggest if the violator doesn't come into compliance within the time frame required, fines be levied. We further suggest that language be included to authorize the director to revoke the permit of an importer or generator of sewage sludge that doesn't comply or repeatedly violate the provisions of Chapter 20 and these rules and regulation in regards to sewage sludge. Language that spells out the appeal process should be included in this section as well.

Another item that is absent from this proposed rule is any reference to the role of the Office of Water Resources. Our Authority would like to see a section of this proposed rule clearly defining the role of the Office of Water Resources. It is our understanding that Dr. McCoy's office currently oversees the land application of sewage sludge and the issuance of NPDES permits for POTWs. The specific roles of both the Office of Waste Management and the Office of Water Resources should be clearly spelled out in the proposed rule to avoid any future confusion.

The Wetzel County Solid Waste Authority would like to see these rules and regulations have as little impact as possible on local POTWs. In the drafting of the many versions of what is now known as SB 288, the intent of the legislature was consistently to draft language that would have minimal impact upon local POTWs and to simultaneously avoid any unconstitutional differential treatment of waste coming into West Virginia.

In codifying limits to the size of sewage sludge facilities and rates of land application of sewage sludge, the legislature was trying to protect the citizens of the state from being the recipients of vast quantities of sewage sludge. They accomplished this by requiring responsible land use policies be adopted in regards to sewage sludge.

The purpose of these lengthy and specific comments has been to ensure the legislative intent of SB 288 would remain intact. It is our sincere hope that you will amend your proposed rules and regulations to reflect West Virginia code, treat local POTW's gently, and protect West Virginians from becoming host to America's sludge pit.

Martha Huffman
Wetzel County Solid Waste Authority

Natural Resources
Defense Council

40 West 20th Street
New York, New York 10011
212 727-2700
Fax 212 727-1773

May 19, 1993

Part 503 Sewage Sludge Use and Disposal Rule
Comment Clerk
Water Docket MC-4101
Environmental Protection Agency
401 M Street, SW
Washington, D.C. 20460

Re: **Comments on Cadmium Standards under Final Rule, Standards for the Use or Disposal of Sewage Sludge (58 Federal Register 9248 et seq., February 18, 1993)**

To the Comment Clerk:

The Natural Resources Defense Council ("NRDC") and the Environmental Defense Fund ("EDF") submit these comments on the cadmium standards under the "Final Rule, Standards for the Use or Disposal of Sewage Sludge" (58 Federal Register 9248 et seq., February 18, 1993). The Preamble to the Final Rule provides that "EPA welcomes additional data and analyses related to [the cadmium] standard and will consider any such additional information received by the Agency within 90 days of publication of today's rule." (58 Federal Register 9276).

NRDC and EDF submitted joint comments on the "Proposed Rule, Standards for the Disposal of Sewage Sludge", on August 7, 1989, and has met with EPA representatives on numerous occasions to present our views on the final provisions of the Part 503 Rule.

NRDC and EDF are very concerned that the cadmium standards under the Final Rule for the cumulative application of sludges and for APL sludge do not meet the requirements of the Clean Water Act, Section 405(d)(2)(D) to "adequately protect

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public health and the environment from any reasonably anticipated adverse effects" of cadmium-polluted sludge. Therefore the cadmium limits should be revised to ensure adequate protection. We recommend that the standards be revised to provide an application limit of at most 21 mg/kg, and an APL limit of at most 21 mg/kg.

It should be noted that our proposed standards are consistent with a 1981 Interagency Policy Statement on Sludge Use on Land for the Production of Fruits and Vegetables. That Statement was a joint statement of EPA, the U.S. Department of Agriculture and the U.S. Food and Drug Administration. Given EPA's reversal on the proper cadmium standards, both the USDA and the FDA should be given full and ample opportunity to offer comments on the 39 mg/kg cadmium standards of the Final Part 503 Rule and EPA should be required to respond to their comments fully and adequately.

Revision of the Final Part 503 Rules according to comments received during this comment period should proceed expeditiously; at the very latest, revisions should be integrated in the Rule and the Rule fully promulgated by October 1, 1993 (allowing over four months for the revision process). Revision should not delay progress on Round II of the Part 503 Rule.

Our comments are:

1. **Cadmium Poses A Greater Risk When Applied to Acidic Soils Yet EPA Bases its Cadmium Limit Primarily on Data From High pH Soils**

EPA has set a cadmium limit of 39 mg/kg. That limit is based in part on data concerning cadmium uptakes where cadmium-polluted sludge was applied to largely high pH soils. However, cadmium uptake is greater, and cadmium poses a greater risk, in acidic soils.

EPA was presented with considerable information on the issue of cadmium uptake on acidic soils by representatives of the U.S. Department of Agriculture, and yet failed to take such information into account and lower its cadmium limits to conform with USDA proposals. Furthermore, EPA failed to include pH requirements in the Final Rule to ensure that the assumptions made in determining the 39 mg/kg limit (i.e., high pH soils) would prove true in actual land application of sludge under the Rule.

Acidic soils make up approximately half the agricultural lands in the United States. In the Northeast, an area where large-scale sludge application programs are being considered as the nine ex-ocean dumpers develop their long-term sludge management program, the soils are predominantly acidic.

Because of the greater risks of cadmium uptake in acidic soil, and because of the great acreage of acidic soils used by U.S. farmers, NRDC and EDF recommend that the

cadmium limit for land application and APL sludges be lowered to at most 21 mg/kg. Information presented by the USDA indicate that such a limit would provide adequate protection of public health and the environment from sludge applied on all soils.

2. **EPA Used A Geometric Mean to Determine Dietary Intake of Cadmium, Despite the Reality of Human Consumption**

The EPA calculated dietary uptake of cadmium utilizing geometric means of daily intakes. However, individuals eat the sum of cadmium in their diet over their lifetime (calculated by arithmetic means), not the geometric mean of daily intakes multiplied by the number of days exposed. Thus, the sum of actual intakes is likely to be greater than the geometric means summed across the days of exposure.

As the USDA has pointed out in comments to EPA, the use of arithmetic means results in a lower cadmium limit, consistent with our recommendation that the cadmium standards be changed to at most 21 mg/kg.

3. **EPA Underestimated the Total Risk to the Home Gardener**

In determining risk to the home gardener from cadmium-polluted sludge, the EPA failed to take into account that not only will the home gardener consume his/her own products but also other products potentially grown with sludge, including grains and produce. Thus the rate of daily cadmium ingestion will in fact be higher than assumed by the EPA.

In order to provide adequate protection to the home gardener, we recommend that the sludge APL standard for cadmium be lowered to at most 21 mg/kg.

4. **The National Sewage Sludge Survey Indicated that a Cadmium Standard of 21 mg/kg is Currently Achievable**

The National Sewage Sludge Survey indicated that a significant amount of the sludge produced nationwide can currently meet a cadmium standard of 21 mg/kg. Furthermore, the survey's data indicates that feasible improvements in pollution prevention and industrial pretreatment could bring virtually all sludges to such a standard or lower.

NRDC and EDF are very concerned that EPA's cadmium standard will result in a backsliding of sludge quality and a reduced commitment to pollution prevention and pretreatment. Not only will the risks of land application of sludge therefore be unnecessarily (and unreasonably) increased, but it is likely that effluent quality from sewage treatment plants will degenerate, resulting in degradation of receiving water quality.

TABLE 3: Summary of British Columbia Compost Quality Classifications.

COMPOST TYPE	SS	A	B	C	D	E
METAL CONCENTRATION CODE	1	1	1 OR 2	1, 2 OR 3	1, 2 OR 3	4
FEEDSTOCK	SS	MSW	MSW	MSW	YW SS MSW	MSW
MATURITY	Mature, Semi-mature	Mature	Mature, Semi-mature	Mature, Semi-mature	Fresh	N/A
FOREIGN MATTER	≤ 1%	≤ 1%	≤ 2%	≤ 10%	≤ 10%	N/A
WATER CONTENT	≤ 50%	≤ 50%	≤ 50%	≤ 50%	N/A	N/A

MSW: Municipal Solid Waste; SS: Source Separated Waste; YW: Yard Waste.

TABLE 4: Summary of British Columbia Compost Use Restrictions by Classification.

CLASSIFICATION	RESTRICTIONS
SS and A	Unrestricted Distribution
B	Non-Food Applications: parks, forested lands, forest and horticultural nursery industry
C	Non-Food Applications: parks, forested lands, forest and horticultural nursery industry
D	Land Reclamation Projects with Limited Potential for Public Contact
E	Disposed of in Landfill

PART 503 NUMERICAL CRITERIA FOR LAND APPLICATION

ELEMENT	CUMULATIVE LOAD (kg/ha)	APL (Clean Sludge) (mg/kg)	APLR (kg/ha/yr)
Arsenic	41	41	2.0
Cadmium	39	39	1.9
Chromium	3,000	1,200	150
Copper	1,500	1,500	75
Lead	300	300	15
Mercury	17	17	0.85
Molybdenum	18	18	0.90
Nickel	420	420	21
Selenium	100	36	5.0
Zinc	2,800	2,800	140

APL - Annual Pollutant Load
APLR - Annual Pollutant Loading Rate

Office of Waste Management

Attn. Bill Rheinlander
1356 Hansford Street
Charleston, W.V. 25301

Sewage Sludge regulations

I find the following general problems with theproposed regulations;

1. No use of identified sound scientific data used for classifing A,B,C facilities no status of sludge management in the state; total amount dry or wet ton, methods of disposal(% landfilled, incinerated, land applied, lime stablized, or composted) amount of suitable land available.

2. 4.2.3d Agreement, Vertical integration allows for abuses in the system, resulting in under reporting, subsitution of materials

3. No elimination of sludge from landfills. Yard waste will be banned. Sludge is more noxious. In a sealed environment of al landfill anarobic conditions drive the pH down, this creates a hazardous leachate and generates abundant methane. We should continue weaning sludge from landfills.

4. Overreliance on C.F.R. 503.12, no explainations, interpretations or decisions--- nothing to comment on.

5. Centralization of authority within D.E.P No local involvement or recourse. Authority, respondsibility, and the beare of consequences are all separate.

6. No evidence of integration with other composting regulations or guidelines.

thank you for your consideration,

Dr. John Hannon Martin,

Attached is an outline for a sludge management program from the Waste reduction task committee of the S.W.M.B. This was submitted for discussion purposes to D.E.P. Max Robertson, November, 1992.

WEST VIRGINIA SLUDGE APPLICATION PROGRAM

GOAL; RETURNING USEFUL PRODUCTS TO THE SOIL
placing authority and resources where the responsibility lies, locally.

- MORITORIUM ON LAND APPLICATION OF SLUDGE (TWO YEARS) Present demonstration programs can continue meeting in state needs and upgraded. Definition of program occurs during this time. Training and certification of haulers and appliers occurs.

- REFERENDUM ON ACCEPTING LAND APPLICATION IN A HOST COUNTY ('95) this should encourage local informed debate.

- ESTABLISHMENT OF LOCAL ADMINISTRATIVE BODY
  a good example; the local Solid Waste Authorities

- ESTABLISHMENT OF LOCAL WATCHDOG GROUP
  concerned people are responsible for the issues (within parameters they can close operation)

- DETERMINATION OF AREAS SUITABLE FOR LAND APPLICATION
  SWA, SCS and the Extension Service provided at a fee

- DETERMINATION OF ACCEPTABLE LOADING RATE LIMITS
  Land Grant University provided at a fee

- AGREEMENTS WITH LANDHOLDERS
  preliminary acceptance followed by firm contract with local administrative body

- REQUEST OF QUALIFICATIONS FROM HAULERS AND APPLIERS

- SLUDGE APPLICATION PLAN approved by state Board

- LOCAL BROKERING OF SERVICE FOR CONTRACT

  - REQUEST FOR BID FOR HAULERS AND APPLIERS

    - INDEPENDENT OF ASSESSMENT

    - PURCHASE OF BOND

  - PURCHASE OF LIABILITY INSURANCE

  - IMPLEMENTATION REFERENDUM
    [illegible]

Sycamore Landfill, Inc.
4301 Sycamore Ridge Road
Hurricane, West Virginia 25526

Telephone
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Fax
304-562-2358

June 21, 1993

West Virginia Division of
Environmental Protection
Office of Waste Management
Attn: Bill Rhinelander
1356 Hansford Street
Charleston, WV 25301

Dear Bill:

Enclosed please find our comments and suggested changes to the proposed Sewage Sludge Management Regulations Title 47, Series 38D. The following sections from the proposed regulations are of a concern to us; suggested changes and additions have been supplied:

3.2.1.f: It is our feeling that the land application of sewage sludge should be allowed up to the boundary of a facilities' property, so long as all surface water is directed back to the facility. These boundary areas are in need of sludge application, and to restrict them from such benefits would seem unnecessary if proper run-off procedures are followed.

3.2.1.i: Pertaining to the application of sewage sludge within an active landfill disposal cell, it is our belief that this requirement is too strict, since the final slopes of many landfills, as approved by the WVDEP, are steeper than 15%. We recommend that for sludge applications within active landfills some leeway be given based on site specific conditions and design.

3.3.1.d.C: We proposed that for any solid waste landfill facility which is in compliance with the solid waste regulations, and has an existing liner system either of clay or synthetic material, that this extra liner construction not be

required. This requirement would mean that a landfill operator would need to construct a liner system on top of their already existing liner, which would be excessively costly.

3.3.1.d.D: It is our feeling that if the processing of sewage sludge is done over a lined area, that the construction of a concrete pad would be unnecessary, so long as all leachate generated from the sludge is handled in accordance with the solid waste regulations as they pertain to leachate. If the installation of this concrete was intended to ensure ease of access and dumping, it would seem as though there are more cost effective ways to maintain access without the finality of 6" of poured concrete.

3.6.1: The 25% requirement would seem not to apply to the land application, or the processing of sewage sludge, because the sludge is never being comingled with the daily waste that is being disposed of. If the intent of this requirement was to limit total amounts of sludge to be handled at a landfill, then this item is already covered, as is seen in the inclusion of sludge in a facilities' monthly tonnage limitation. This requirement is also difficult to comply with due to the fact that the tonnage of waste and the tonnage of sludge coming into a facility on a daily basis vary, and cannot be estimated with any degree of certainty.

4.1.3: We feel that any solid waste landfill facility that is seeking a sewage sludge processing or land application permit, should be able to do so throught a minor permit modification, not a major modification

4.2.1.g: Regarding the requirement to provide data as to the levels of chemical constituents in the sludge, it does not seem practical to have the facility operator disclose this information, when it is the responsibility of the generators to certify to the processors that excessive levels of the listed constituents are not in their waste streams. Therefore we suggest that, as in the landfill minor permit modification process, the generators be responsible for certification of the quality of their waste.

4.2.2.b: Regarding disclosure statements: It is our feeling that if a facility is seeking a major modification of an existing solid waste landfill permit which the WVDEP has issued, and for which disclosure statements have already been submitted and approved, in an effort to save time in the

permitting process that the submission of the same disclosure statement not be required. This waiver could only apply if the principal owners and operators holding the existing permit were the same as for the proposed sewage sludge/land application permit being sought.

4.2.3.b: When is this information pertaining to nitrogen content to be determined, when the sludge is coming into the facility?, when it is land applied?, after it has been composted?, or when it leaves the facility for use at another location? How often will this need to be determined?

4.2.3.1: We feel that our customers, as sludge generators, have the right to maintain the privacy as to who their customers are. Many of the generators of sludge will not be willing to release such proprietary information about who their industrial users are. General information should be supplied by generators, but due to fierce competition, and the fact that any information submitted to the WVDEP becomes public record, this requirement may cause generators to use out of state facilities where such information is not requested or required.

5.1.1.b: What sampling parameters will be used and what detection limits will be set? Will this mirror the Federal 503 guidelines?

5.3.2: Operating solid waste landfill facilities should not be limited as to the amount of sludge that can be accepted or land applied, if the facility demonstrates the ability to properly handle, apply, and or process the amounts of sludge brought to the facility. In the instance of an operating landfill, many areas which have received the land application of sludge will probably be re-opened to achieve final and desired grades, while other areas that need to be matured to elevations are being landfilled. This means that an operating landfill has the ability to properly and effectively consume more sewer sludge than facilities such as farms or on strip mine reclamations, where the loading rate will be exceeded if multiple applications of sludge are made. Landfills are the exception to the rule because once the sludge is applied, allowed to sustain revegetation, and dries considerably, it in effect becomes a perfect cover material, which if removed from one area of the landfill to allow further placement of waste can be reutilized as intermediate type cover elsewhere. Then the area from which the dried sludge was removed can accept another application of the sludge to once again sustain revegetation.

6.3.3: Insert after the word "Fund", and before the word "except" the following:

provided that the fees established by 6.3.1 and 6.3.2 shall not apply to sewage sludge or material derived from sewage sludge which is disposed of in a solid waste landfill facility or land applied in or on a disposal cell in a solid waste landfill facility which has been issued a permit for the operation of a solid waste landfill facility pursuant to the provisions of chapter 20, Article 5F, Section 5.

These changes distinguish the difference between landfills and other disposal and processing facilities. Landfills already pay assessment fees and taxes for such things as environmental remediation, water resources control, and enforcement activities.

Appendix A: The frequency of monitoring proposed is excessive; this is due mainly to the extremely high cost of running analytical tests. Unless the water quality management board will pay for the analytical work, we propose the following:

Less than 290 tons per year- Analyze once every 12 months
290 to 1,500 tons per year- Analyze once every 6 months
1,500-15,000 tons per year- Analyze once per quarter (4 times per year)
15,000 or more tons per year- Analyze once per month (12 times per year)

These are all of the proposed changes that we have currently. We sincerely hope that these are taken into consideration when the final regulations are made. If you have any questions, or would like further clarification of any of these issues, please call.

Sincerely,
Sycamore Landfill, Inc.

David Newman
Operations Manager

LWV

LEAGUE OF WOMEN VOTERS OF WEST VIRGINIA

1127 MONTROSE DRIVE • SOUTH CHARLESTON, WV 25303 • TELEPHONE 304-744-8787

June 21, 1993

To: Division of Environmental Protection

Re: Proposed Sludge Regulations

The League of Women Voters of West Virginia wishes to make a few suggestions pertaining to the proposed sludge regulations.

Approval of sites for disposal should be contingent on not adversely affecting sites where endangered or threatened species are located. The federal standards refer to this requirement.

Where a Wellhead Protection Program is in place, an applicant for disposing sewage sludge should be required to confer and get approval from the committee in charge of the Wellhead Protection Program if the sludge is to be disposed of in the Wellhead area.

Are compost toilets covered in the definitions section? These could be either private or public. The disposal of the compost from these toilets should be regulated.

KL/HG

Karen Lukens, President

1127 Montrose Drive
South Charleston, WV 25303
744-8787

Helen Gibbins, Natural Resources
6128 Gideon Rd.
Huntington, WV 25705
736-3287

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Brooke County Sanitary Landfill

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Colliers, WV 26035
Tele: (304) 748-0014
Fax: (304) 748-0005

"If It's Service, it's Us"

June 17, 1993

Mr. William Rheinlander
Information Representative
Department of Commerce, Labor and
Environmental Resources
Division of Environmental Protection
Office of Waste Management
1356 Hansford Street
Charleston, WV 25301

Dear Mr. Rheinlander:

The proposed sludge regulations offer the State of West Virginia the opportunity to develop a comprehensive program for the beneficial reuse of a waste. However certain sections of the proposed regulations are counter productive and will have an adverse impact on the beneficial reuse of municipal sludge and cost of waste water treatment.

The following sections need eliminated or changed:

a) 3.2.1.h and 4.2.3.n. restricting use to soils with a PH greater than 6.2. Normal Brooke County soil ranges from PH 5.2 to PH 7.2 and compost use should be permitted on soils with a PH of 5.0 or greater.

Compost and sludge contain considerable alkalinity which is beneficial to acidic soils. The concept that oxidation of sulfides and acid rain can over a long period of time neutralize the add alkalinity and return the soil to the original low PH has been proposed. The concern expressed is that the neutralization of the alkalinity causes the compost residual to ultimately be exposed to the original low soil PH condition with the potential for acid leachating of the heavy metals present in the compost or sludge.

This leachating of heavy metals from compost residuals is not possible at normal acid soil PH's of 5 or greater because the metals are oxidized and not soluble in measurable levels. The TCLP procedure uses a strong acid solution to extract soluble metal ions from a waste. Any material that passes the TCLP procedure is not going to leach metals at soil PH levels of 5 or greater.

This section of the regulation would prevent using compost on acid mine spoils that would greatly benefit from both the organic matter and alkalinity present in the compost or sludge.

b) 3.2.1.i. prohibits the use of sludge on slopes greater than 15%. Should change to read: Prohibit placement of sludge on slopes which would allow the sludge to flow. For example 40% solid sludge will be stable on a much steeper slope than 20% solid sludge.

c) 3.2.1.k. prohibits the use of sludge on less than 20" of soil over bedrock or an impervious pan. The environmental reason for this restriction is not apparent. These are generally the poorer quality soils that would most benefit from sludge or compost.

d) 3.2.1.l. prohibits the use of sludge on soil with a permeability of less than 0.6 inches/hour ($4.23X10^{-4}$ cm/sec) and greater than 6 inches/hour ($4.23X10^{-3}$ cm/sec). What possible logic could require a soil permeability restriction? A very high permeability that could allow nitrates to enter the ground water? This remote concern is addressed in the agronomic rate calculations. This section should be eliminated.

e) 3.3.1.d. Liner system is required in any area containing sludge or products in direct contact with the ground. Buildings and other work areas under roof need to be excluded from the liner requirements.

f) 3.3.1.d.D. Final surface shall consist of at least a six (6) inch slab of reinforced concrete with a leachate collection network.

Section 3.3.1.d.D. is an example of how inappropriate a specific method of accomplishing a goal is in regulations. The unstated purpose of this section is to provide a durable all weather work surface that protects the liner system and provides a method for leachate collection. The regulation should be changed to: "The final surface shall consist of an all weather durable working surface that fully protects the liner system (3.3.1.d.B.) and provides a means of collecting the leachate."

The claim by the West Virginia Department of Environmental Protection that there is no economic impact from the proposed regulation is not correct. There are considerable taxes and fees imposed by the regulations that will be paid by the citizens of West Virginia. Also without the above proposed changes, the cost of disposing sludge through land application and composting will be unnecessarily increased with no associated environmental benefits.

Since clean water is the goal of everyone and all water treatment processes generate sludge, any unnecessary cost imposed on the disposal of sludge will be an added financial burden on cleaning the waters of our state and country. These costs are ultimately paid by the citizens.

Thank you for this opportunity to comment on the proposed sludge regulations.

Sincerely,

David C. Brown, P. E.
Engineer Manager

DCB/jk

Tyler County Solid Waste Authority
P. O. Box 126
Middlebourne, WV 26149
June 22, 1993

Reference: Proposed Rule, Title 47, Series 38D,
"Sewage Sludge Management Regulations"

Office of Waste Management, DEP
Attn: Bill Rheinlander
1356 Hansford Street
Charleston, WV 25301

Dear Mr. Rheinlander:

General Comments -

Until last year the large volumes of sludge from New York and New Jersey were dumped in the ocean, now they have to find a new place for it. Unless it can be proved that the environment in New York and New Jersey is more fragile than in West Virginia, the West Virginia regulations must be equivalent to those of these states. Potentially huge quantities of sludge could be brought to West Virginia. These states and others that have responsibly handled large quantities of sludge, have rules built from experience. If West Virginia takes on these problems, the same rules are needed now.

There are no consequences for non-compliance; these are a must.

A sewage sludge processing facility should annually (in the summer time, on a Saturday) have a day when the public can inspect the facilities, ask questions, and receive answers. The owners, managers, and appropriate DEP representatives should be there.

The groundwater monitoring wells must be working and checked regularly.

The treated leachate must be monitored to prove statistically that it meets required standards.

The sludge should be brought to a ph of 6.2 before it is applied to the soil.

Specific Reference Comments -

3.1. Incorporates Federal regulations 40 CFR part 503 as in effect on the effective date of these rules. The 503 rules aren't that good. Perhaps a better way would be to use the best of them as part of these rules.

One would hope 503 rules would only get better; if these rules or any other rules are incorporated, they should apply as amended.

3.2.1.a. Delete , "unless the applicant can demonstrate to the Director that the land application will not cause runoff into streams or wetlands."

3.2.1.b. Amend to, "Land within 300 feet ..."

3.2.1.c. Amend to, "Land within 300 feet ..."

3.2.1.d. Amend to, "Land within 300 feet of an occupied dwelling."

3.2.1.f. Amend to, "Land within 200 feet of an adjacent owner's property line without written consent."

3.2.1.h. Amend to, "Land that has been tested and determined to have a ph of less than 6.5."

3.2.1.j. Amend to, "Land that has a seasonal high groundwater less than 5 feet from the surface."

4.2.1.g. Heavy metals, pathogens, toxins, vectors: These rules should define what tests are made, how often they are made, and what would keep it from being accepted at the facility.

4.2.2.e.J. There must be testing and reporting to show this is working. It must meet a standard.

5.1.1.f. Amend to, "Requirements to retain records for the facility for a minimum of thirty years."

Thank you.

Sincerely,

James D. Van Camp

James D. Van Camp
Vice-Chairman Tyler Co. SWA

"Out-of-State Garbage"

Why is it that "good," "just," "right," and "logic" seems to always give way to "greed," "injustice," "wrong," and "stupidity."? The pure indignity of the matter begs for "reasonable" resolution. "I'm going to take my garbage and dump it in your yard." "NO"! you emphatically say, "You can't do that, you are violating my property, my birthright, my ecology, and my natural resources. You must dispose of your own garbage in your own way and you cannot and will not violate my land."

Certainly, a reasonable dumper would agree with the dumpee and, in fact, personal property law would most likely support the dumpee's position and enforce the requirement that the dumper dump his trash elsewhere. Makes sense, seems reasonable--and the outcome described is supported by logic, justice, and good common sense.

Why is it then that when we elevate this illustration to the State level it becomes okay for one state to dump its garbage in another state. How can a citizen or a government official of West Virginia support the hills and valleys of this incredibly beautiful landscape being defiled by the trash and sludge of your sister states? Shame on you!

Of equal concern is the mentality of those in other states who think it's okay to dump one state's garbage in another state. Are the Pocono's of Pennsylvania more pristine than the hills of West Virginia? Let's haul garbage to the Pocono's, the Adirondack's, the Alleghenies, the Catskills . . . Let's defile Western Maryland, Southern New Jersey, the Berkshires of Massachusetts, the White's of New Hampshire and the Green's of Vermont . . . NO!, you say, . "you can't do that because you would violate the natural beauty, the ecological balance, and innumerable laws".

Ah, but I can in West Virginia.

Why is that? Interestingly, it is not the "Government" of any locality or state that is sending garbage to West Virginia. No, it is free enterprise that has turned West Virginia into the toilet bowl of the East. The

greedy Free Enterprise Set and stupid West Virginia politicians create a marriage made in heaven for the greedy Free Enterprise Set. The Free Enterprise Set is greedy because all they are about is making money. They charge municipalities in the congested Northeast corridor exorbitant fees to dispose of garbage and other waste (some of it hazardous). There is more waste created than can be disposed of at local facilities. What do they do? Well, they can build new facilities locally (at great expense, with stringent ecological requirements and high "tipping" fees) or they can haul the garbage and dump it elsewhere, someplace, say, where the "tipping" fees are peanuts, the ecological consequences are of no concern, and where I get little or no resistance from GOVERNMENT. Bingo! I'll dump my garbage in West Virginia. They (the State Government of West Virginia) welcome me, charge me very little, and have NO MECHANISM of SURVEILLANCE or AUDIT to monitor my compliance with any guidelines that might be in place. Can you imagine how the mind of the Free Enterprise Set must be boggled at the thought? Imagine, paying Wetzel County West Virginia 50 cents per ton (Yes, 50 cents per ton) to fill its landfill with garbage and other waste from other states. Just how stupid can the Government of West Virginia be to allow such an indignity?

If you're going to be the toilet for the Northeast, at least have the dignity and business acumen to be an EXPENSIVE toilet. Participate in the FREE ENTERPRISE SYSTEM. MAKE MONEY! GET YOUR SHARE! BE SMART! PLAY THE GAME! MATCH GREED WITH GREED!

Does anyone ever stop to think how the Free Enterprise Set can afford to BUY TRUCKS, HIRE DRIVERS, PAY SLICK LAWYERS, and DONATE significant sums of money to local charitable causes all in the name of dumping garbage in West Virginia instead of New York? Hello..o..o..o! There is a lot of money in garbage, and the Free Enterprise Set is growing RICH at the expense of the PEOPLE of West Virginia. WAKE UP West Virginians! Demand your share of the pie. Either get your share in an economic sense or PROTECT YOUR BIRTHRIGHT, YOUR ECOLOGY AND YOUR NATURAL BEAUTY. Do not allow yourselves to be had by those who care nothing about you or your State. Let every citizen be heard and let the message be loud and clear, "We will not be fooled by the Free Enterprise Set." Either our State gets RICH from your stinking garbage or you haul it BACK FROM WHENCE IT CAME.

Right, Justice, Common Sense, and Logic are on your side. Stupid politicians, slime lawyers, and greedy entrepreneurs are your foe. Good will always win out over evil.

Fight the fight now, before it's too late. Man can destroy in a decade what Mother Nature took millenniums to create. Do not allow the RAPE of West Virginia by the Free Enterprise Set go unchallenged. She's a beautiful state, West Virginia; a good State, and she deserves better than she's getting.

Remember the song, "The West Virginia Hills":

1. *We all have treasures*
   We call our own
   Mine are these hills
   I call my home
   Just let me live
   Till eternity
   in these hills
   God walks with me

2. *Yes, He walks these hills*
   These beautiful hills
   Where my soul is always free
   What a comfort to know
   You're never alone
   Cause God walks these hills
   With Me

Good luck and Godspeed,

Signed, Bob & Helen Burgess
RR 2 Box 21
New Martinsville, WV
26155

"A West Virginian At Heart"

CITY OF WHEELING

WHEELING, WEST VIRGINIA 26003

June 23, 1993

Division of Environmental Protection
Office of Waste Management
1356 Hansford Street
Charleston, WV 25301
Attn: Bill Rheinlander

Hand Delivered

RE: Comments on Sewage Sludge Management Regulations

Dear Mr. Rheinlander:

The proposed Sewage Sludge Management Regulations (Title 47, Series 38D) which are the subject of the public hearing, will have a dramatic impact on how Publicly Owned Treatment Works (POTW) operate in West Virginia. The City of Wheeling operates a wastewater treatment plant that produces approximately 8,000 tons of sewage sludge annually. Our current disposal method is to haul this waste to a licensed landfill and bury it. We believe this practice is not the best environmental solution for the disposition of this waste product in West Virginia, nor will it be the most economical for cities in the future as landfill tipping fees increase.

The City of Wheeling requested modifications to our landfill and NPDES permits which would allow us to develop a more economical and environmentally sound solution to our sludge disposal process. These permit modification requests were submitted prior to the legislative amendments to § 20-5F-2b of the West Virginia Code and the solutions were being designed to be consistent with, and meet all the requirements of Federal Regulations 40 CFR Part 503, which regulate sewage sludge.

Federal Regulation 40 CFR Part 503 recognizes and regulates different processing methods for sewage sludge and the disposition of the resultant product to insure environmentally sound and safe solutions to the problem. The regulations proposed by the Department of Environmental Protection appear to go beyond 40 CFR 503 in permit requirements for sewage sludge processing facilities and land application requirements. These extensions beyond the requirements of 503 will create extreme hardships on West Virginia communities attempting to resolve sludge handling problems consistent with the Federal EPA 503 regulations, and may eventually cause all sludge to be dumped into landfills.

The federal regulations recognize that there are better and more productive solutions than landfilling sewage sludge. Sewage sludge can be processed in a number of ways under the 503 regulations to end up with a very safe product for beneficial re-use. Once a processed product meets very rigid federal standards, it becomes safe for re-use in almost any environment for land application.

The federal regulations establishes two levels of sewage quality, Class A and Class B. Under the Part 503 regulation, fewer restrictions are imposed on the use of higher quality sludge (Class A.) In regard to land application, the federal regulations state *"A number of general requirements and management practices apply to sewage sludge that are land applied with the exception of 'Exceptional Quality' sewage sludge ..."* The 503 regulations states under Distributed and Marketed Products "... sewage sludge or material derived from sewage sludge that is considered suitable for distribution and marketing (D&M) for uses on lawns and home gardens, either in bulk or container form, must meet the Class A pathogen reduction requirements, a vector attraction reduction processing option, and the Pollutant Concentration limits (with the exception that sewage sludge which meets the pollutant Ceiling Concentrations, but no the Pollutant Concentration limits, can be sold in bags or other containers for use at sludge application rates prescribed on a label that are based on not exceeding the Annual Pollutant Loading Rates.) The Class A pathogen reduction requirements must be met at the time the bulk or containerized products are "sold or given away."

If sewage sludges are of "Exceptional Quality" - meet the Pollutant Concentration limits, Class A pathogen reduction requirements and a vector attraction reduction processing option - they are <u>usually exempt</u> to the general requirements and management practices applicable to land application practices.

The proposed West Virginia regulations do not seem to distinguish the categories of sludge between the Class A (Clean Sludge or Exceptional Quality) and Class B categories as do the Part 503 regulations. Nor do the West Virginia regulations provide incentives for West Virginia POTW's to produce Class A end products.

The fees associated with the regulation process again become a factor in the processing of sewage sludge to the Class A or 'Exceptional Quality' level, and should provide incentives for POTW's to produce a Class A product which is both beneficial to the producer and to the state. Anything less than a Class A or regulated Class B sewage sludge can be detrimental to the future of West Virginia environmentally.

The City of Wheeling hopes the Department of Environmental Protection will seriously consider the comments made at the public hearing and submitted in writing regarding the proposed regulations and make good constructive changes that will allow the City of Wheeling and other West Virginia POTW's to economically handle sludge disposal problems consistent with the environmentally sound solutions provided by 40 CFR Part 503.

I have attached to this letter a list of specific concerns with various sections of the proposed regulations, and would ask that these comments also be considered as part of the public record regarding the Title 47, Series 38D regulations.

Thank you for the opportunity to speak and submit comments regarding this very important issue for West Virginia.

Sincerely,

Jimmy E. Cumes
City Manager

Attachment

cc: Mayor Jack Lipphardt

City of Wheeling

Comments on proposed Series 38D Sewage Sludge Regulations.

2.13/2.14 - "Composting" should not be used as terminology. The terminology should reflect the new Federal 503 regulations. "P.F.R.P." or "E.Q.S." or "Class A" technologies are all terms that refer to a higher level of treatment.
This can include composting, Alkaline Pasteurization, or possibly pelletization. There are many other alternative technologies to composting, many are safer.
Does the definition of composting include N-Viro or do they recognize composting as an entirely different operation/process (which it is).
Similarly, "Composting Facility" means what? Can our operation be set up at another location in the same county and be considered part of the treatment plant or does it actually need to be connected. As P.F.R.P. treatment it could be argued that this was part of the wastewater treatment process.

2.25 - If a materials recovery facility does not include a composting facility, where would an N-Viro A.A.S.S.A.D. facility fall. Would it be considered a mixed waste processing facility?

2.33 - Sludge should be considered a recycled product after it has been subjected to an approved "Class A" treatment. At least with further restrictions (such as 50% solids content) this status should be attainable.

2.35 - How will incinerator ash be classified?

2.36 - This paragraph should include some of those technologies. "Alkaline Pasteurization" should be included. At this time there are only 8 In-Vessel composting facilities in operation in the country. There are over 30 Lime Pasteurization facilities.

2.44 - It does not appear that this article would allow lime sterilization to be performed, because when Lime Sterilization is wet it does give off offensive odors as does composted material. Alkaline Pasteurized material does not.

3.1 - Federal regulations set out a guideline for "Clean Sludge" or "E.Q.S." (exceptional quality sludge) with the intent to promote beneficial re-use. If the BIO-SOLIDS or products incorporating bio-solids are of a low enough contaminant level they are deemed safe enough for unrestricted sales. This will allow for the successful marketing of the final product. If the State of West Virginia would like to place more stringent requirements on these products, They might consider requiring a minimum of 50% dryness or a more restrictive fecal coliform count.

(3.1 con't) pH could also be a factor in this requirement. The N-Viro A.A.S.S.A.D. process is mentioned specifically in the E.P.A. 503 regulations as a E.Q.S. technology, where does West Virginia acknowledge this? (see E.P.A. 503 regulations attached).

3.2 thru 3.2.3. - These restrictions will eliminate the possibility of ever marketing sludge based products (even if generated locally) to the general public in the State of West Virginia. This is in direct opposition to the intent of the establishment of a "Clean Sludge" guideline. As this regulation is written, all technologies that seek to utilize the benefits of properly treated biosolids will fall under this restriction, regardless of the means by which the final product is produced or the final form that the product will take. Specifically:

3.2.1. This says "sludge will not be applied to land...". N-Viro Soil, or Alkaline Pasteurized Biosolids is a product and is not sludge.

3.2.1.e. - This will eliminate the possibility of the use of Alkaline Pasteurized Biosolids in Department of Transportation projects such as re-seeding after construction and for erosion control. This is one of the most exciting opportunities in the recycling of properly treated material.

3.2.1.g. - This restriction does not include any acceptable distance. If the run-off from the material is clean then this restriction would be unnecessary. There should at least be a table of acceptable distances and/or acceptable levels of contaminants in the runoff.

3.2.1.h. - This would eliminate the use of ALKALINE treated Biosolids on disturbed lands as a way of raising the pH. Such as around strip mines , construction sites and on reclamation projects. This seems to be intended for application of sludge that is acidic. It has been well documented that ALKALINE PASTEURIZED biosolids are an effective amendment product for raising the pH of lands like these. Even in one time applications.

3.2.1.i. - This would eliminate the use of these products for erosion control on slopes, a very appropriate use for some biosolids based products. This also has been documented.

3.2.1.k. - Again this would limit the use around strip mine areas (the areas in most need of soil amendment). N-Viro Soil, if blended with clay results in an acceptable topsoil material. It has a stable pH and exhibits the characteristics of soil.
Heavy Metals are bound in an insoluble metal hydroxide salt coating, much the same way as heavy metals present in any soil material. The contaminants are permanently bound (unless, as with native soils, they are heavily stressed with acid). N-Viro Soil has been used as landfill cover, structural/construction fill material, a soil amendment, ag-lime and fertilizer with no adverse affects to the environment.
Would this material (blended or unblended) qualify as soil that could be utilized to achieve this 20" requirement?
If so, then this restriction should not apply to land application of N-Viro Soil. (The U.S. E.P.A. has recognized Chemical Fixation as "the best demonstrated available technology to immobilize heavy metals".

(3.2.1.k. cont'd) Composting does nothing to immobilize heavy metals, in fact if the resulting compost is on the acidic side, heavy metals could continue to leach from this material indefinitely. Clearly the A.A.S.S.A.D. process deserves recognition above that of compost for land application for this reason.

3.2.1.1 - This seems overly restrictive and should have other parameters, such as depth of topsoil, clay or bedrock. In addition just as above, N-Viro Soil should be blended with this material to make a better product.

3.2.3. - These Dry Ton limits should not be so low for all circumstances. This may work for ag. application, but in strip mine reclamation applications and in some landfill cover or maintenance applications this could prevent the goal from being achieved. This should have additional parameters allowing certain quality material greater leeway.

3.3.1.a. - This makes no provision for clean runoff and does not define what level of contaminants are acceptable/unacceptable. In addition if the processing site is located at the landfill (which is already lined, with a leachate collection system, then this is redundant.

3.3.1.d through 3.3.1.d.D. - These restrictions could unnecessarily prevent the recycling of Biosolids in the State of West Virginia due to cost. Again "Clean Sludge" or E.Q.S. Biosolids should be treated differently than extremely contaminated "Class B" materials. These restrictions may be written for in-vessel composting. They are extremely restrictive and overly protective. The result will be increased costs that will cause clean re-usable Biosolids to be dumped in a landfill for disposal. Again, there should be exceptions for material that has been treated to a safer level or for material that may be "safe" before treatment.

3.3.1.d.b. - If the installation were on solid rock, would a clay liner still be required? Solid rock is certainly more impenetrable.

3.3.1.d.c. - What exactly defines a "Leachate detection zone?"

3.3.1.d.D. - A final surface should also have the option of being 8" of Dense Graded Aggregate (compacted) and 4" of Asphalt as an alternate to the 6" of concrete.

3.4.1. - The question again comes up - N-Viro Soil (or A.A.S.S.A.D. pasteurized Biosolids) is not sludge, and water that comes in contact with it should not have to be handled in any special manner. This has been repeatedly tested-and proven. This product can be stored in the open indefinitely.

3.6. thru 3.6.1. - This regulation does not take into account final product that may be used as landfill cover. Some Class A processes (like the N-Viro Process) result in a final product that is no more sewage sludge than gasoline is crude oil or wastewater is clean effluent.

(3.6 thru 3.6.1 cont'd) If this material were to be judged based on 25% of the total waste disposed of at the landfill, then once again an opportunity to recycle biosolids will have been lost. There should be restrictions on the suitability of Biosolids derived products as landfill cover (such as 50% dryness, compaction or permeability, pH, and vector attraction) this restriction is far to broad to be sensible.

4.1.3. This seems to say that the operation could be placed at the sewage treatment plant. Is this true?

4.1.5. - This paragraph should allow for variances of permits-by-rule at the discretion of the State.

4.2.1.g. - This should read (.....or final product)

4.2.1.h. - This is to restrictive for the sale of E.Q.S. material. This regulation will severely inhibit a marketing program for Class A or E.Q.S. products.

4.2.1.j. - This should read (....unless granted a variance by the State)

4.2.2. - Again, can the mixing operation for an A.A.S.S.A.D. facility be put at the wastewater treatment plant?

4.2.2.c.E and 4.2.2.c.F - These paragraphs should refer to "E.Q.S." or "P.F.R.P." or "Class A". There are other appropriate technologies and the word compost is not only a competitive advantage for compost system vendors, it is misleading.

4.2.2.c.H. - The N-Viro Process in Wheeling will use Fly Ash. This is not a "bulking agent". It is required for pH maintenance and for further drying. The definition of a bulking Agent should be clarified.

4.2.2.e.F thru 4.2.2.e.K - These regulations are written specifically for in-vessel composting systems. Not only do they fail to address other technologies they imply a preference from the State's perspective and are therefore unfair. They should be removed or amended appropriately.

4.2.3. - It is our understanding that under the Federal E.P.A.'s 503 regs. that P.F.R.P. processes such as the N-Viro A.A.S.S.A.D. do not require some of the regulations stated. In fact, N-Viro Soil is considered so safe that it is the only sludge based product available in the world that can offer Product Liability Insurance (through C.N.A. a national Underwriter). This at least demonstrates the level of safety that these products can achieve. (Please see attached 503 regulations, see note on page 8, 5th paragraph)

4.2.3.a. - If marketing a "Clean, E.Q.S., Class A" or other such treated final product this amount of information is unrealistic and will impede marketing efforts drastically.

4.2.3.c. - This is also overly restrictive. If the material qualifies as a clean material it is operationally impossible to provide this level of detail for every single end-use. These uses could be yards, maintenance on bare spots, construction sites etc. At the higher level of treatment Biosolids derived fertilizers, ag-limes, and soil amendment products are generally much "cleaner" than commercial fertilizers. Commercial products do not have this restriction and if the Biosolids derived products cannot compete on a cost and convenience basis, they will not be purchased and the recycling program will fail.

4.2.3.f and 4.2.3.g - Sometimes the owner of the property does not know this information. This is impractical!

4.2.3.i. - N-Viro Soil is not sludge!

4.2.3.n. This is another reason to establish a mechanism for higher application rates of E.Q.S. products. It has been repeated demonstrated that Alkaline Pasteurized Biosolids, for one, can improve the pH of acidic soils indefinitely after only one application. Carey Technologies has achieved this on soils with a pH as low as 2.3 with applications of 70 to 100 dry tons per acre. (relatively little considering the resulting vegetation and improvement of water quality- no additional applications have been required.

5.3 this whole section should exempt E.Q.S. products or at least set guidelines for cleaner or diluted materials.

5.3.4. - N-Viro Soil has been cleared by the 503's to be spread on food chain crops.

6.3.1 and 6.3.2 These fees should be reduced according to the level of treatment that the material has undergone. Land Applying Class B liquid is not the same as a farmer using a registered fertilizer made from Biosolids that have under gone treatment from a class A technology. The use of a fee system to support inspection and fund research is good, however these fees are excessive and could prevent recycling from taking place due to the competitive bidding process (it could always be cheaper to dispose of in the landfill). In addition by applying these fees "across the Board" the State is contributing to the removal of any incentive that a generator may have to seek a higher and safer level of treatment for his/her Biosolids. What exactly is a material derived from sewage sludge? This needs to be defined. Why do smaller operations subject to less treatment pay less than operations with pre-treatment requirements?

6.6.3. - Municipalities and Landfills should be able to make cover out of their own products--particularly if these products can be used without further permitting--according to the 503 regs. mentioned in this document.

Appendix A - Again these rates are excessive. Specifically the frequency of monitoring for 1,500 to 15,000 and over 15,000 dry ton facilities. It could be estimated that a facility generating over 15,000 dry tons per year would spend over $150,000 in testing alone. If these guidelines are not reduced it will contribute further to higher costs, again reducing the realistic opportunities to recycle this valuable (if properly handled) resource.

WETZEL COUNTY SOLID WASTE AUTHORITY
P.O. Box 192, Proctor, West Virginia 26055

Office of Waste Management, DEP
1356 Hansford Street
Charleston, WV 25301
Attention: Bill Rheinlander

June 16, 1993

Dear Mr. Rheinlander,

The Wetzel County Solid Waste Authority would like to submit the following comments regarding Title 47, Series 38D, "Sewage Sludge Management Regulations". While our authority recognizes the time constraints and the enormity of the task of promulgating these rules in a timely fashion, we also feel it is imperative that these rules and regulations reflect the intent and will of the legislature. They clearly do not.

In reviewing this document, we found so many gross inconsistencies not only between these rules and regulations and the intent of SB 288 but within the document itself that it was difficult to determine whether our recommendations should be to change specific passages or to start from scratch. We chose to offer specific comments as well as offer the strong suggestion that the writers of these rules and regulations go back to the drawing board and make the rule reflect the contents and intent of SB 288.

The Fiscal Note for a Proposed Rule states that there will be no fiscal change as a result of these rules and regulations. This statement is false. Up until the time the Office of Waste Management was transferred from the Division of Natural Resources to the Division of Environmental Protection, sewage sludge processed and placed at the Wetzel County Landfill was counted against the monthly tonnage and all applicable solid waste fees were applied.

After the transfer of the Office of Waste Management to the Division of Environmental Protection, sewage sludge processed and placed in the Wetzel County Landfill, with the exception of New Martinsville, Jefferson County Ohio, and Paden City, was exempt from all tipping fees and not counted against the monthly tonnage. There were many contracts either in the process of negotiation or already signed, but the one contract that was closely scrutinized was from Nassau County, New York. This single contract was for 108,000 tons of sewage sludge per year to come to Brooke and Wetzel counties. Until SB 288 was passed, Director Callaghan's policy of not counting sewage sludge composted at and placed in a solid waste facility was costing the state $1 million per year for the Nassau County contract

alone. It was costing the host county solid waste authorities $49,000 per year. Nassau County was the tip of the iceberg. We soon learned of a signed contract with Westchester County and proposed contracts with Jamaica, NY; Bergen County, NJ; to name a few.

These rules and regulations also impose fees upon local POTW systems for land application and remediation. These fees are substantially lower than landfilling. These rules and regulations would also require that extensive capital be spent to comply with stringent sludge containment requirements that could price small generators of sewage sludge out of the composting business. This entire provision is ignored under the fiscal note provision of B.1. Economic Impact on Political Subdivisions: No impact.

The Fiscal Note should give direct reference to the fees required to be collected by solid waste facilities processing sewage sludge that is required under 20-5F-2b(e). Using the figures from 1992, the fiscal note should include the programs that will benefit by resuming the policy of counting sewage sludge as solid waste when it is handled at a solid waste facility.

Our second specific objection is to 47-38D-1.5. where federal rules are incorporated by reference. One of the primary reasons other states are targeting West Virginia as a sludge depository is the lack of rules and regulations that are more stringent than 40-CFR-503. New York, New Jersey, Pennsylvania, Maryland, Ohio, Virginia and Kentucky are but a few states that have discovered the weakness in the EPA 503 rule and have established rules more stringent than current EPA guidelines. More importantly, there are specific portions of EPA 503 rule that are in direct contradiction to the mandate of West Virginia Code. These contradictions must be reconciled to reflect the legislative intent of West Virginia Code.

On page 2, section 2.8 of the proposed rule there is a definition of a "Class A Sewage Sludge Processing Facility". Since such a facility would be the same as a "Class A Facility", referred to in 2.7, we find the definition of a Class A Sewage Sludge Processing Facility to be redundant and respectfully request that it be removed from the definitions. Since sections 2.9 and 2.10 would also be classified as solid waste facilities, the definitions of Class B and C Sewage Sludge Processing Facilities would also be redundant. These two definitions should be eliminated as well.

On page 6, section 2.43 in the definition of "Source Separated Organic Materials", we would like to see the inclusion of the following language after the final word "septage." to be amended to "...septage, or wood waste that consists of treated lumber."

On Page 7, 47-38D-3 STANDARDS FOR USE, DISPOSAL AND PROCESSING OF SEWAGE SLUDGE starting with section 3.1 Incorporation of Federal Regulations; we must again vigorously object to the blind incorporation of 40 CFR part 503 rule. The 503 rule is not only in direct contradiction to the newly adopted SB288, but it is even weaker than existing rules for land application of sewage sludge currently administered under the Office of Water Resources, under the direction of Dr. Eli McCoy.

Section 3.2 also needs many changes. This section is also a watered down version of the current rule followed by Dr. McCoy. There are other more stringent models that would enhance the protection of West Virginians while protecting the on-going practice of small scale controlled land application of sewage sludge that has been occurring for years. The legislature intended to protect the current policy of 75% of the POTW's land applying sewage sludge with minimal impact. Our Authority supports the legislature's efforts to this end.

Our Authority suggest the following changes:

3.2.1.a. Should read, "Land that is frozen, snow-covered, or known to be flooded on a regular basis." Delete all subsequent language in this sub-section.

3.2.1.b. Amend to, "Land within 300 feet..."

3.2.1.c. Amend to, "Land within 1000 feet..."

3.2.1.d. Amend to, "Land within 1000 feet of an occupied dwelling or within 600 feet of an occupied dwelling with the signed consent of the owner of said dwelling.

3.2.1.e. Amend to, "Land within 50 feet of any public highway or road."

3.2.1.h. Amend to, "Land that has been tested and determined to have a pH of less than 6.5"

3.2.1.i. Amend to, "Land that has a slope greater than 6%."

3.2.1.j. Amend to, "Land that has a seasonal high groundwater table less than 5 feet from the surface."

3.2.2 refers solely to soil concentration limits referred to in the 503 rule. This is in direct contradiction to West Virginia Code 20-5F-2b(b)(6). The 503 language gives reference to the contaminants within the sludge applied without factoring in the pre-existing contaminants within the soil. 20-5F-2b(b)(6) specifically requires the DEP to do a statistical analysis of the pre-existing elements of the soil that will receive sludge.

It is the responsibility of the DEP to establish maximum loading limits and apply those limits based upon what already exists in the soil combined with the contaminants present in the sludge to be land applied. Should the combined total of contaminants within the soil and contaminants within the sludge exceed the maximum loading limits, land application at that site should be prohibited.

The Authority further recommends the following be added after 3.2.3., "3.2.4. No land within a solid waste

facility, but outside a landfill disposal cell, be allowed to accept the permanent application of so much sewage sludge as to exceed the agronomic rate or a rate of fifteen dry tons per acre per year, which ever is less." This language is lifted verbatim from the code and would prohibit the so called sludge dedication sites referred to in in 40 CFR section 503.

Section 3.3. SEWAGE SLUDGE PROCESSING FACILITY OPERATIONAL AND DESIGN REQUIREMENTS (beginning page 8)

3.3.1.c. Amend to, "The facility must not be operated or constructed within the one hundred year flood plain." Delete everything else.

In sections 3.3.1.d., including A.through E., our Authority supports these stringent specifications when they apply to large scale generators or importers, but when applied to small scale facilities, this yardstick seems inappropriate. While a household generates garbage that is collected in a container and that garbage generates lechate, the law doesn't require a home owner to build a miniature landfill. While construction and demolition landfills do require some environmental safeguards, they are not nearly as stringent as those that apply to solid waste landfills. By the same token, it is unfair to place small municipalities in the same playing field as major metropolitan areas. The environmental rule in West Virginia needs to incorporate the amount of sludge generated combined with the toxicity of any sludge generated or imported.

The Wetzel County Solid Waste Authority would support language that would adjust the environmental requirements according to the quantity and quality of sewage sludge generated. A good place to start would be to require sewage sludge processing facilities generating 500 tons per monnth or less to have an asphalt pad in lieu of the stringent liner requirements for larger facilities.

3.6. Amend to delete the final sentence, "Alternative sludge disposal methods can be utilized upon obtaining written approval from the chief." This gives the chief entirely too much latitude and exempts propsed disposal alternatives from public notification or comment.

47-38D-4 PERMITS REQUIRED

4.1.2. In order for this section to reflect the code, 20-5F-2b(12)(c), it should read as follows: "For those publicly owned treatment works (POTW) which produce sewage sludge and are regulated by the division pursuant to an NPDES permit required under article five-a of this chapter, a sewage sludge processing permit shall be a part of the existing water pollution control permit and shall include a sewage sludge management plan approved by the chief."

4.1.3. The Wetzel County Solid Waste Authority has many major problems with this section not only as it applies to Wetzel County but the impact it will have upon the entire state. Quite candidly, this sub-section creates wretched state policy.

The permit issued to the Wetzel County Landfill, permit #SW-1021-92 under E. Permit Conditions section 1. states "This facility has submitted the Module A (NPDES) Application....Incorporation of Module A into the Solid Waste Facility Permit is required and will constitute a "major modification" and all related regulatory requirements must be met thereunder.". Yet 4.1.3. states that "...a sewage sludge processing facility MODIFICATION WILL BE OBTAINED (emphasis ours) as a part of the existing solid waste permit and shall include a sewage sludge management plan.".

It treats a sludge processing facility as a minor modification. There are no provisions for public input, no requirement that such a drastic change in land use would have to comply with the county or regional solid waste authority's siting plan, no requirements of county or regional solid waste authority approval. Furthermore the language "will be obtained" nearly implies a mandate that the DEP grant a sludge processing facility modification to ANY permitted solid waste facility, be they a recycler, a transfer station or a landfill. The requirements for a permitted solid waste facility to receive a "sewage sludge processing modification" are less stringent than those required for POTWs under 20-5F-2b(12)(c). POTW's are required to receive a permit while permitted solid waste facilities are required by the proposed rule to only obtain a modification.

It is the opinion of the Wetzel County Solid Waste Authority that any permitted solid waste facility seeking to process sewage sludge should obtain a permit as required for POTW's, and that such a permit be subject to the provisions established within the local or regional solid waste authority's siting plan. If sewage sludge processing facilities are expressly or tentatively prohibited within the host county's plan, or the area proposed for sewage sludge processing has not been designated an acceptable area, the permitted facility must obtain approval from the regional or county solid waste authority before the DEP can issue the sewage sludge processing permit.

In the same manner POTWs are required to obtain an additional permit even though the volume of sewage and sludge remains constant, permitted solid waste facilities would be seeking a permit for a new activity upon a pre-existing site. They would still be bound by the tonnage limits and fees required in 20-5F-2b(12)(e). Obtaining a sewage sludge processing permit for a permitted solid waste facility should be treated as a MAJOR MODIFICATION to an existing solid waste facility permit and subject to the provisions of 3.18..

4.1.4. Amend after the words "Series 38..." by adding "and any and all Certificate of Need requirements as required by the Public Service Commission."

4.1.5. Should be amended to add provisions within the code that require public participation.

4.2. GENERAL, PROCESSING FACILITY, AND LAND APPLICATION PERMIT REQUIREMENTS.

4.2.1.i. Since the 503 rule is very weak in the area of quality control and this section references all of 40 CFR, Part 503, we recommend rewriting this entire section. This rewrite should include an analysis for heavy metals to include but not be limited to arsenic, cadmium, chromium, copper, lead, molybdenum, nickel and zinc and a testing for toxic and hazardous materials using toxic characterization and leaching property (TCLP) tests. Standards should also be established for refusing sludges that test too high for specific toxins or heavy metals.

4.2.2.a.A. Please amend to "A regional map, or maps (of appropriate scale that delineate SEWAGE SLUDGE PRODUCING AREA..." As this subsection reads now, a sewage sludge processing facility could simply locate every POTW sending sludge to their facility. This wouldn't reveal whether the POTW was receiving large quantities of waste water from industry or residents nor would it reveal the size of the population serviced. By amending the regional map to delineate the sewage sludge producing area, you will have a clearer picture of the types of customers feeding into any contributing POTW.

4.2.2.c.E. Please amend to include the following after the final word, "conditions;" to,"to include a landfill that will accept the unused product. Any finished compost may not be stored on site for a period of more than 120 days. After 120 days, any finished compost must be applied within accordance with these rules and regulations or landfilled;"

4.2.2.e.I. " The expected mass balance through the composting system;" should be deleted. This is the creation of a formula to anticipate the difference between the weight of uncomposted sewage sludge and the weight lost due to composting. We assume the purpose is to credit a solid waste facility for the compost that leaves the facility for land application purposes and exempt composted sludge leaving a solid waste facility from the fees required by 20-5F-2b(12)(e).

There are many problems with using such a blanket formula. All sludge is not equal. While our rules and regulations require sludge to be at least 20% solid by weight, the city of New Martinsville's sludge is over 50% solid by weight. If the formula used assumed that every ton of sludge processed was 20% solid by weight, it would take

five tons to equal one ton of sewage sludge subject to the tipping fees, while in many cases, the actual case would be two tons would equal one ton. The state would be losing $8.25 per ton for every ton that would slip through the cracks using this formula.

Furthermore, this formula assumes that all sludge will be composted effectively and the 80% water will be removed. Again, every miscalculation of this formula will result in a loss of revenues of $8.25 per ton to the state.

The only equitable way to compensate a solid waste facility for the compost that leaves the facility is to credit them for the actual weight that leaves the facility. Therefore, the Wetzel County Solid Waste Authority recommends the following replacement language for 4.2.2.e.1. "All applicable fees required by 20-5F-2b(12)(e) shall be paid as proscribed by this chapter on any sewage sludge entering a solid waste facility based on the actual weight of the sludge as it enters the facility. Any composted sewage sludge leaving the solid waste facility shall be weighed and the actual tonnage leaving the facility shall be deducted from the monthly tonnage and all fees as proscribed under 20-5F-2b(12)(e) shall be waived;". This language would specifically spell out your intent. It may be better placed in 47-38D-6 Fee Assessment, however we found no reference any place in these proposed rules and regulations that dealt with the fees mandated by 20-5F-2b(12)(e). Perhaps this language should be replacement language for 6.3.3.

4.2.3.n. Please amend "maintain the soil to a minimum pH of 6.5..." and include language for penalty assessments for non-compliance.

47-38D-5. GENERAL, PROCESSING FACILITY, AND LAND APPLICATION PERMIT REQUIREMENTS.

5.2.3. Kiln dust in many states is actually the ash from unregulated, unmonitored hazardous waste incinerators, since many cement kilns burn hazardous waste for fuel and have carved a neat little exemption for themselves under federal law. Our Authority would urge the prohibition of kiln dust from any sewage sludge processing facility, landfill, composting facility, or land application. If we do accept kiln dust, it should be treated as special waste and TCLP, heavy metal and most importantly PCB and dioxin testing should be done on any proposed acceptance of kiln dust. The most stringent standards we can find should be applied to kiln dust.

47-38D-6. Fee Assessment

6.1. Please amend "Any person required to obtain a solid was facility permit pursuant to these regulations" to "Any producer or importer of sewage sludge or product thereof

shall be subject to...". The purpose of this proposed amendment is to close any loophole that may exist in this proposed rule.

6.3.3. Please see our comments on 4.2.2.e.I. In addition, we object to the dedication of these fees solely to the Solid Waste Enforcement Fund. There are many other places these fees apply, specifically the 50 cents per ton to the host county solid waste authority not to mention the recyling fund the $1 per ton for the Solid Waste Management Board, the landfill closure fund to mention a few. The code, 20-5F-2b(12)(e), states that, "All Sewage sludge placed in, or upon, or used by a solid waste facility or processed or handled, pursuant to a permit issued by the division of environmental protection, shall be subject to the same tipping and other fees levied by this chapter on the disposal of solid waste..." Please note there is no codified dedication of fees solely to the Solid Waste Enforcement Fund. Furthermore, 6.3.3. ignores the inclusion of the optional host county fee that can be assessed.

A section that is missing from these regulations is 47-38D-7 Enforcement. There are absolutely no consequences under this rule for non-compliance. Our Authority suggests language be adopted to issue citations for non-compliance and place the offending generator or importer on a compliance schedule to remediate the violation. We further suggest if the violator doesn't come into compliance within the time frame required, fines be levied. We further suggest that language be included to authorize the director to revoke the permit of an importer or generator of sewage sludge that doesn't comply or repeatedly violate the provisions of Chapter 20 and these rules and regulation in regards to sewage sludge. Language that spells out the appeal process should be included in this section as well.

Another item that is absent from this proposed rule is any reference to the role of the Office of Water Resources. Our Authority would like to see a section of this proposed rule clearly defining the role of the Office of Water Resources. It is our understanding that Dr. McCoy's office currently oversees the land application of sewage sludge and the issuance of NPDES permits for POTWs. The specific roles of both the Office of Waste Management and the Office of Water Resources should be clearly spelled out in the proposed rule to avoid any future confusion.

The Wetzel County Solid Waste Authority would like to see these rules and regulations have as little impact as possible on local POTWs. In the drafting of the many versions of what is now known as SB 288, the intent of the legislature was consistently to draft language that would have minimal impact upon local POTWs and to simultaneously avoid any unconstitutional differential treatment of waste coming into West Virginia.

In codifying limits to the size of sewage sludge facilities and rates of land application of sewage sludge, the legislature was trying to protect the citizens of the state from being the recipients of vast quantities of sewage sludge. They accomplished this by requiring responsible land use policies be adopted in regards to sewage sludge.

The purpose of these lengthy and specific comments has been to ensure the legislative intent of SB 288 would remain intact. It is our sincere hope that you will amend your proposed rules and regulations to reflect West Virginia code, treat local POTW's gently, and protect West Virginians from becoming host to America's sludge pit.

Martha Huffman
Wetzel County Solid Waste Authority

Natural Resources
Defense Council

40 West 20th Street
New York, New York 10011
212 727-2700
Fax 212 727-1773

May 19, 1993

Part 503 Sewage Sludge Use and Disposal Rule
Comment Clerk
Water Docket MC-4101
Environmental Protection Agency
401 M Street, SW
Washington, D.C. 20460

Re: **Comments on Cadmium Standards under Final Rule, Standards for the Use or Disposal of Sewage Sludge (58 Federal Register 9248 et seq., February 18, 1993)**

To the Comment Clerk:

The Natural Resources Defense Council ("NRDC") and the Environmental Defense Fund ("EDF") submit these comments on the cadmium standards under the "Final Rule, Standards for the Use or Disposal of Sewage Sludge" (58 Federal Register 9248 et seq., February 18, 1993). The Preamble to the Final Rule provides that "EPA welcomes additional data and analyses related to [the cadmium] standard and will consider any such additional information received by the Agency within 90 days of publication of today's rule." (58 Federal Register 9276).

NRDC and EDF submitted joint comments on the "Proposed Rule, Standards for the Disposal of Sewage Sludge", on August 7, 1989, and has met with EPA representatives on numerous occasions to present our views on the final provisions of the Part 503 Rule.

NRDC and EDF are very concerned that the cadmium standards under the Final Rule for the cumulative application of sludges and for APL sludge do not meet the requirements of the Clean Water Act, Section 405(d)(2)(D) to "adequately protect

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Los Angeles, CA 90014
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808 533-1075

public health and the environment from any reasonably anticipated adverse effects" of cadmium-polluted sludge. Therefore the cadmium limits should be revised to ensure adequate protection. We recommend that the standards be revised to provide an application limit of at most 21 mg/kg, and an APL limit of at most 21 mg/kg.

It should be noted that our proposed standards are consistent with a 1981 Interagency Policy Statement on Sludge Use on Land for the Production of Fruits and Vegetables. That Statement was a joint statement of EPA, the U.S. Department of Agriculture and the U.S. Food and Drug Administration. Given EPA's reversal on the proper cadmium standards, both the USDA and the FDA should be given full and ample opportunity to offer comments on the 39 mg/kg cadmium standards of the Final Part 503 Rule and EPA should be required to respond to their comments fully and adequately.

Revision of the Final Part 503 Rules according to comments received during this comment period should proceed expeditiously; at the very latest, revisions should be integrated in the Rule and the Rule fully promulgated by October 1, 1993 (allowing over four months for the revision process). Revision should not delay progress on Round II of the Part 503 Rule.

Our comments are:

1. **Cadmium Poses A Greater Risk When Applied to Acidic Soils Yet EPA Bases its Cadmium Limit Primarily on Data From High pH Soils**

EPA has set a cadmium limit of 39 mg/kg. That limit is based in part on data concerning cadmium uptakes where cadmium-polluted sludge was applied to largely high pH soils. However, cadmium uptake is greater, and cadmium poses a greater risk, in acidic soils.

EPA was presented with considerable information on the issue of cadmium uptake on acidic soils by representatives of the U.S. Department of Agriculture, and yet failed to take such information into account and lower its cadmium limits to conform with USDA proposals. Furthermore, EPA failed to include pH requirements in the Final Rule to ensure that the assumptions made in determining the 39 mg/kg limit (i.e., high pH soils) would prove true in actual land application of sludge under the Rule.

Acidic soils make up approximately half the agricultural lands in the United States. In the Northeast, an area where large-scale sludge application programs are being considered as the nine ex-ocean dumpers develop their long-term sludge management program, the soils are predominantly acidic.

Because of the greater risks of cadmium uptake in acidic soil, and because of the great acreage of acidic soils used by U.S. farmers, NRDC and EDF recommend that the

cadmium limit for land application and APL sludges be lowered to at most 21 mg/kg. Information presented by the USDA indicate that such a limit would provide adequate protection of public health and the environment from sludge applied on all soils.

2. **EPA Used A Geometric Mean to Determine Dietary Intake of Cadmium, Despite the Reality of Human Consumption**

The EPA calculated dietary uptake of cadmium utilizing geometric means of daily intakes. However, individuals eat the sum of cadmium in their diet over their lifetime (calculated by arithmetic means), not the geometric mean of daily intakes multiplied by the number of days exposed. Thus, the sum of actual intakes is likely to be greater than the geometric means summed across the days of exposure.

As the USDA has pointed out in comments to EPA, the use of arithmetic means results in a lower cadmium limit, consistent with our recommendation that the cadmium standards be changed to at most 21 mg/kg.

3. **EPA Underestimated the Total Risk to the Home Gardener**

In determining risk to the home gardener from cadmium-polluted sludge, the EPA failed to take into account that not only will the home gardener consume his/her own products but also other products potentially grown with sludge, including grains and produce. Thus the rate of daily cadmium ingestion will in fact be higher than assumed by the EPA.

In order to provide adequate protection to the home gardener, we recommend that the sludge APL standard for cadmium be lowered to at most 21 mg/kg.

4. **The National Sewage Sludge Survey Indicated that a Cadmium Standard of 21 mg/kg is Currently Achievable**

The National Sewage Sludge Survey indicated that a significant amount of the sludge produced nationwide can currently meet a cadmium standard of 21 mg/kg. Furthermore, the survey's data indicates that feasible improvements in pollution prevention and industrial pretreatment could bring virtually all sludges to such a standard or lower.

NRDC and EDF are very concerned that EPA's cadmium standard will result in a backsliding of sludge quality and a reduced commitment to pollution prevention and pretreatment. Not only will the risks of land application of sludge therefore be unnecessarily (and unreasonably) increased, but it is likely that effluent quality from sewage treatment plants will degenerate, resulting in degradation of receiving water quality.

The 1987 amendments to the Clean Water Act, including both the anti-backsliding provisions and the 405(d) provisions, demonstrate Congress' clear intent that regulations governing sludge and water quality promulgated under the Clean Water Act should not result in a backsliding of sludge and effluent quality.

Given the current status of sludge quality in the United States, and the ability of all sludges to meet a cadmium limit of at most 21 mg/kg, EPA should require no less in its rule.

5. **The Export of Grains Will Be Jeopardized by EPA's Cadmium Standards**

Despite repeated entreaties from USDA, EPA has refused to recognize the serious impact its cadmium standards will have on the ability of U.S. farmers to export agricultural products grown with sludge. Not only may farmers be subjected to increased and expensive testing/certification requirements when exporting grains, but those products will be rejected if grown with sludge conforming to EPA's standard of 39 mg/kg. According to the USDA, the economic losses associated with increased certification requirements and loss of overseas markets will be significant and potentially devastating for some farmers.

6. **The USDA May Come Out with Its Own, More Stringent, Cadmium Standards To Protect Farmers That Will Conflict with EPA's Standard and Undermine Public Confidence in Beneficial Use of Sludge and in EPA**

The USDA has raised serious issues to EPA concerning the cadmium standards for land application of sludge, including concerns over acidic soils, export grains, and the economic viability of farmers. Because EPA has not responded to those concerns, there is a possibility that USDA will issue its own guidance to farmers on sludge use, which will include more stringent cadmium standards.

If the USDA comes out with its own standards, a message will be sent that EPA cannot ensure adequate protection of public health and the environment, and public confidence in EPA and in the Part 503 Rule for Sludge Use and Disposal will be undermined. NRDC and EDF urge EPA to work with USDA in resolving the issues of concern: both agencies have a responsibility to coordinate and harmonize their activities to send a clear meassage to the regulated community and to the public about the benefits of sludge reuse.

We recommend that in order to address the issues identified by USDA, EPA revise its cadmium standards to at most 21 mg/kg for land application and 21 mg/kg for APL sludges.

7. **The Opinion of the Food and Drug Administration Should Be Solicited on the Appropriate Standards for Cadmium**

It has come to the attention of NRDC and EDF that the FDA did not offered official comments on the proposed 503 Rule, including the proposed cadmium standards. We recommend that during the period set aside for review of comments received on the final cadmium standards, official comments of the FDA be solicited. In addition to clear jurisdictional interest over the matter of agricultural products grown with sludge, the FDA has expertise that could be very useful to the EPA in determining the adequacy of its cadmium standards.

Furthermore, the FDA was a signatory, along with EPA and USDA, to the 1981 Interagency Policy Statement on Sludge that recommended a 25 mg/kg standard for cadmium, along with EPA and USDA. Given the dramatic reversal of EPA on the appropriate standard for cadmium, the FDA must be fully briefed on EPA's reasoning and given an opportunity to offer official comments on the 39 mg/kg standard.

Thank you for this opportunity to offer comments on the cadmium standards in the Final Part 503 Rule. We look forward to working with you further on this and other issues presented under the Part 503 Rule.

Sincerely,

Nina Sankovitch
Senior Project Attorney
Natural Resources Defense Council

Sarah Clark /nms

Sarah Clark
Senior Scientist
Environmental Defense Fund

DEPARTMENT OF COMMERCE, LABOR & ENVIRONMENTAL RESOURCES
DIVISION OF ENVIRONMENTAL PROTECTION
1356 Hansford Street
Charleston, WV 25301-1401

Gaston Caperton
Governor

John M. Ranson
Cabinet Secretary

David C. Callaghan
Director

Ann A. Spaner
Deputy Director

June 25, 1993

MEMO TO: Ann Spaner, Eli McCoy, Bill Brannon and Clifton Browning

FROM: Bill Rheinlander BR

SUBJECT: Sewage Sludge Comments

Enclosed is a complete copy of the sewage sludge regulation comments we received during the recent 30-day comment period.

Enclosures

TABLE 3: Summary of British Columbia Compost Quality Classifications.

COMPOST TYPE	SS	A	B	C	D	E
METAL CONCENTRATION CODE	1	1	1 OR 2	1, 2 OR 3	1, 2 OR 3	4
FEEDSTOCK	SS	MSW	MSW	MSW	YW SS MSW	MSW
MATURITY	Mature, Semi-mature	Mature	Mature, Semi-mature	Mature, Semi-mature	Fresh	N/A
FOREIGN MATTER	≤ 1%	≤ 1%	≤ 2%	≤ 10%	≤ 10%	N/A
WATER CONTENT	≤ 50%	≤ 50%	≤ 50%	≤ 50%	N/A	N/A

MSW: Municipal Solid Waste; SS: Source Separated Waste; YW: Yard Waste.

TABLE 4: Summary of British Columbia Compost Use Restrictions by Classification.

CLASSIFICATION	RESTRICTIONS
SS and A	Unrestricted Distribution
B	Non-Food Applications: parks, forested lands, forest and horticultural nursery industry
C	Non-Food Applications: parks, forested lands, forest and horticultural nursery industry
D	Land Reclamation Projects with Limited Potential for Public Contact
E	Disposed of in Landfill

PART 503 NUMERICAL CRITERIA FOR LAND APPLICATION

ELEMENT	CUMULATIVE LOAD (kg/ha)	APL (Clean Sludge) (mg/kg)	APLR (kg/ha/yr)
Arsenic	41	41	2.0
Cadmium	39	39	1.9
Chromium	3,000	1,200	150
Copper	1,500	1,500	75
Lead	300	300	15
Mercury	17	17	0.85
Molybdenum	18	18	0.90
Nickel	420	420	21
Selenium	100	36	5.0
Zinc	2,800	2,800	140

APL - Annual Pollutant Load
APLR - Annual Pollutant Loading Rate

Office of Waste Management

Attn. Bill Rheinlander
1356 Hansford Street
Charleston, W.V. 25301

Sewage Sludge regulations

I find the following general problems with theproposed regulations;

1. No use of identified sound scientific data used for classifing A,B,C facilities no status of sludge management in the state; total amount dry or wet ton, methods of disposal(% landfilled, incinerated, land applied, lime stablized, or composted) amount of suitable land available.

2. 4.2.3d Agreement, Vertical integration allows for abuses in the system, resulting in under reporting, subsitution of materials

3. No elimination of sludge from landfills. Yard waste will be banned. Sludge is more noxious. In a sealed environment of al landfill anarobic conditions drive the pH down, this creates a hazardous leachate and generates abundant methane. We should continue weaning sludge from landfills.

4. Overreliance on C.F.R. 503.12, no explainations, interpretations or decisions--- nothing to comment on.

5. Centralization of authority within D.E.P No local involvement or recourse. Authority, respondsibility, and the beare of consequences are all separate.

6. No evidence of integration with other composting regulations or guidelines.

thank you for your consideration,

Dr. John Hannon Martin,

Attached is an outline for a sludge management program from the Waste reduction task committee of the S.W.M.B. This was submitted for discussion purposes to D.E.P. Max Robertson, November, 1992.

WEST VIRGINIA SLUDGE APPLICATION PROGRAM

GOAL; RETURNING USEFUL PRODUCTS TO THE SOIL
placing authority and resources where the responsibility lies, locally.

- MORITORIUM ON LAND APPLICATION OF SLUDGE (TWO YEARS) Present demonstration programs can continue meeting in state needs and upgraded. Definition of program occurs during this time. Training and certification of haulers and appliers occurs.

- REFERENDUM ON ACCEPTING LAND APPLICATION IN A HOST COUNTY ('95) this should encourage local informed debate.

- ESTABLISHMENT OF LOCAL ADMINISTRATIVE BODY
  a good example; the local Solid Waste Authorities

- ESTABLISHMENT OF LOCAL WATCHDOG GROUP
  concerned people are responsible for the issues (within parameters they can close operation)

- DETERMINATION OF AREAS SUITABLE FOR LAND APPLICATION
  SWA, SCS and the Extension Service provided at a fee

- DETERMINATION OF ACCEPTABLE LOADING RATE LIMITS
  Land Grant University provided at a fee

- AGREEMENTS WITH LANDHOLDERS
  preliminary acceptance followed by firm contract with local administrative body

- REQUEST OF QUALIFICATIONS FROM HAULERS AND APPLIERS

- SLUDGE APPLICATION PLAN approved by state Board

- LOCAL BROKERING OF SERVICE FOR CONTRACT

  - REQUEST FOR BID FOR HAULERS AND APPLIERS

    - INDEPENDENT OF ASSESSMENT

    - PURCHASE OF BOND

  - PURCHASE OF LIABILITY INSURANCE

  - IMPLEMENTATION REFERENDUM
    [illegible]

Sycamore Landfill, Inc.
4301 Sycamore Ridge Road
Hurricane, West Virginia 25526

Telephone
304-562-2611

Fax
304-562-2358

June 21, 1993

West Virginia Division of
Environmental Protection
Office of Waste Management
Attn: Bill Rhinelander
1356 Hansford Street
Charleston, WV 25301

Dear Bill:

Enclosed please find our comments and suggested changes to the proposed Sewage Sludge Management Regulations Title 47, Series 38D. The following sections from the proposed regulations are of a concern to us; suggested changes and additions have been supplied:

3.2.1.f: It is our feeling that the land application of sewage sludge should be allowed up to the boundary of a facilities' property, so long as all surface water is directed back to the facility. These boundary areas are in need of sludge application, and to restrict them from such benefits would seem unnecessary if proper run-off procedures are followed.

3.2.1.i: Pertaining to the application of sewage sludge within an active landfill disposal cell, it is our belief that this requirement is too strict, since the final slopes of many landfills, as approved by the WVDEP, are steeper than 15%. We recommend that for sludge applications within active landfills some leeway be given based on site specific conditions and design.

3.3.1.d.C: We proposed that for any solid waste landfill facility which is in compliance with the solid waste regulations, and has an existing liner system either of clay or synthetic material, that this extra liner construction not be

required. This requirement would mean that a landfill operator would need to construct a liner system on top of their already existing liner, which would be excessively costly.

3.3.1.d.D: It is our feeling that if the processing of sewage sludge is done over a lined area, that the construction of a concrete pad would be unnecessary, so long as all leachate generated from the sludge is handled in accordance with the solid waste regulations as they pertain to leachate. If the installation of this concrete was intended to ensure ease of access and dumping, it would seem as though there are more cost effective ways to maintain access without the finality of 6" of poured concrete.

3.6.1: The 25% requirement would seem not to apply to the land application, or the processing of sewage sludge, because the sludge is never being comingled with the daily waste that is being disposed of. If the intent of this requirement was to limit total amounts of sludge to be handled at a landfill, then this item is already covered, as is seen in the inclusion of sludge in a facilities' monthly tonnage limitation. This requirement is also difficult to comply with due to the fact that the tonnage of waste and the tonnage of sludge coming into a facility on a daily basis vary, and cannot be estimated with any degree of certainty.

4.1.3: We feel that any solid waste landfill facility that is seeking a sewage sludge processing or land application permit, should be able to do so throught a minor permit modification, not a major modification

4.2.1.g: Regarding the requirement to provide data as to the levels of chemical constituents in the sludge, it does not seem practical to have the facility operator disclose this information, when it is the responsibility of the generators to certify to the processors that excessive levels of the listed constituents are not in their waste streams. Therefore we suggest that, as in the landfill minor permit modification process, the generators be responsible for certification of the quality of their waste.

4.2.2.b: Regarding disclosure statements: It is our feeling that if a facility is seeking a major modification of an existing solid waste landfill permit which the WVDEP has issued, and for which disclosure statements have already been submitted and approved, in an effort to save time in the

permitting process that the submission of the same disclosure statement not be required. This waiver could only apply if the principal owners and operators holding the existing permit were the same as for the proposed sewage sludge/land application permit being sought.

4.2.3.b: When is this information pertaining to nitrogen content to be determined, when the sludge is coming into the facility?, when it is land applied?, after it has been composted?, or when it leaves the facility for use at another location? How often will this need to be determined?

4.2.3.1: We feel that our customers, as sludge generators, have the right to maintain the privacy as to who their customers are. Many of the generators of sludge will not be willing to release such proprietary information about who their industrial users are. General information should be supplied by generators, but due to fierce competition, and the fact that any information submitted to the WVDEP becomes public record, this requirement may cause generators to use out of state facilities where such information is not requested or required.

5.1.1.b: What sampling parameters will be used and what detection limits will be set? Will this mirror the Federal 503 guidelines?

5.3.2: Operating solid waste landfill facilities should not be limited as to the amount of sludge that can be accepted or land applied, if the facility demonstrates the ability to properly handle, apply, and or process the amounts of sludge brought to the facility. In the instance of an operating landfill, many areas which have received the land application of sludge will probably be re-opened to achieve final and desired grades, while other areas that need to be matured to elevations are being landfilled. This means that an operating landfill has the ability to properly and effectively consume more sewer sludge than facilities such as farms or on strip mine reclamations, where the loading rate will be exceeded if multiple applications of sludge are made. Landfills are the exception to the rule because once the sludge is applied, allowed to sustain revegetation, and dries considerably, it in effect becomes a perfect cover material, which if removed from one area of the landfill to allow further placement of waste can be reutilized as intermediate type cover elsewhere. Then the area from which the dried sludge was removed can accept another application of the sludge to once again sustain revegetation.

6.3.3: Insert after the word "Fund", and before the word "except" the following:

provided that the fees established by 6.3.1 and 6.3.2 shall not apply to sewage sludge or material derived from sewage sludge which is disposed of in a solid waste landfill facility or land applied in or on a disposal cell in a solid waste landfill facility which has been issued a permit for the operation of a solid waste landfill facility pursuant to the provisions of chapter 20, Article 5F, Section 5.

These changes distinguish the difference between landfills and other disposal and processing facilities. Landfills already pay assessment fees and taxes for such things as environmental remediation, water resources control, and enforcement activities.

Appendix A: The frequency of monitoring proposed is excessive; this is due mainly to the extremely high cost of running analytical tests. Unless the water quality management board will pay for the analytical work, we propose the following:

Less than 290 tons per year- Analyze once every 12 months
290 to 1,500 tons per year- Analyze once every 6 months
1,500-15,000 tons per year- Analyze once per quarter (4 times per year)
15,000 or more tons per year- Analyze once per month (12 times per year)

These are all of the proposed changes that we have currently. We sincerely hope that these are taken into consideration when the final regulations are made. If you have any questions, or would like further clarification of any of these issues, please call.

Sincerely,
Sycamore Landfill, Inc.

David Newman
Operations Manager

LWV

LEAGUE OF WOMEN VOTERS OF WEST VIRGINIA

1127 MONTROSE DRIVE • SOUTH CHARLESTON, WV 25303 • TELEPHONE 304-744-8787

June 21, 1993

To: Division of Environmental Protection

Re: Proposed Sludge Regulations

The League of Women Voters of West Virginia wishes to make a few suggestions pertaining to the proposed sludge regulations.

Approval of sites for disposal should be contingent on not adversely affecting sites where endangered or threatened species are located. The federal standards refer to this requirement.

Where a Wellhead Protection Program is in place, an applicant for disposing sewage sludge should be required to confer and get approval from the committee in charge of the Wellhead Protection Program if the sludge is to be disposed of in the Wellhead area.

Are compost toilets covered in the definitions section? These could be either private or public. The disposal of the compost from these toilets should be regulated.

KL/HG

Karen Lukens, President

1127 Montrose Drive
South Charleston, WV 25303
744-8787

Helen Gibbins, Natural Resources
6128 Gideon Rd.
Huntington, WV 25705
736-3287

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...n of Environmental Prote...
... of Waste ...

Brooke County Sanitary Landfill

RD# 2, Box 410
Colliers, WV 26035
Tele: (304) 748-0014
Fax: (304) 748-0005

"If It's Service, it's Us"

June 17, 1993

Mr. William Rheinlander
Information Representative
Department of Commerce, Labor and
Environmental Resources
Division of Environmental Protection
Office of Waste Management
1356 Hansford Street
Charleston, WV 25301

Dear Mr. Rheinlander:

The proposed sludge regulations offer the State of West Virginia the opportunity to develop a comprehensive program for the beneficial reuse of a waste. However certain sections of the proposed regulations are counter productive and will have an adverse impact on the beneficial reuse of municipal sludge and cost of waste water treatment.

The following sections need eliminated or changed:

a) 3.2.1.h and 4.2.3.n. restricting use to soils with a PH greater than 6.2. Normal Brooke County soil ranges from PH 5.2 to PH 7.2 and compost use should be permitted on soils with a PH of 5.0 or greater.

Compost and sludge contain considerable alkalinity which is beneficial to acidic soils. The concept that oxidation of sulfides and acid rain can over a long period of time neutralize the add alkalinity and return the soil to the original low PH has been proposed. The concern expressed is that the neutralization of the alkalinity causes the compost residual to ultimately be exposed to the original low soil PH condition with the potential for acid leachating of the heavy metals present in the compost or sludge.

This leachating of heavy metals from compost residuals is not possible at normal acid soil PH's of 5 or greater because the metals are oxidized and not soluble in measurable levels. The TCLP procedure uses a strong acid solution to extract soluble metal ions from a waste. Any material that passes the TCLP procedure is not going to leach metals at soil PH levels of 5 or greater.

This section of the regulation would prevent using compost on acid mine spoils that would greatly benefit from both the organic matter and alkalinity present in the compost or sludge.

b) 3.2.1.i. prohibits the use of sludge on slopes greater than 15%. Should change to read: Prohibit placement of sludge on slopes which would allow the sludge to flow. For example 40% solid sludge will be stable on a much steeper slope than 20% solid sludge.

c) 3.2.1.k. prohibits the use of sludge on less than 20" of soil over bedrock or an impervious pan. The environmental reason for this restriction is not apparent. These are generally the poorer quality soils that would most benefit from sludge or compost.

d) 3.2.1.l. prohibits the use of sludge on soil with a permeability of less than 0.6 inches/hour ($4.23X10^{-4}$ cm/sec) and greater than 6 inches/hour ($4.23X10^{-3}$ cm/sec). What possible logic could require a soil permeability restriction? A very high permeability that could allow nitrates to enter the ground water? This remote concern is addressed in the agronomic rate calculations. This section should be eliminated.

e) 3.3.1.d. Liner system is required in any area containing sludge or products in direct contact with the ground. Buildings and other work areas under roof need to be excluded from the liner requirements.

f) 3.3.1.d.D. Final surface shall consist of at least a six (6) inch slab of reinforced concrete with a leachate collection network.

Section 3.3.1.d.D. is an example of how inappropriate a specific method of accomplishing a goal is in regulations. The unstated purpose of this section is to provide a durable all weather work surface that protects the liner system and provides a method for leachate collection. The regulation should be changed to: "The final surface shall consist of an all weather durable working surface that fully protects the liner system (3.3.1.d.B.) and provides a means of collecting the leachate."

The claim by the West Virginia Department of Environmental Protection that there is no economic impact from the proposed regulation is not correct. There are considerable taxes and fees imposed by the regulations that will be paid by the citizens of West Virginia. Also without the above proposed changes, the cost of disposing sludge through land application and composting will be unnecessarily increased with no associated environmental benefits.

Since clean water is the goal of everyone and all water treatment processes generate sludge, any unnecessary cost imposed on the disposal of sludge will be an added financial burden on cleaning the waters of our state and country. These costs are ultimately paid by the citizens.

Thank you for this opportunity to comment on the proposed sludge regulations.

Sincerely,

David C. Brown, P. E.
Engineer Manager

DCB/jk

Tyler County Solid Waste Authority
P. O. Box 126
Middlebourne, WV 26149
June 22, 1993

Reference: Proposed Rule, Title 47, Series 38D,
"Sewage Sludge Management Regulations"

Office of Waste Management, DEP
Attn: Bill Rheinlander
1356 Hansford Street
Charleston, WV 25301

Dear Mr. Rheinlander:

General Comments -

Until last year the large volumes of sludge from New York and New Jersey were dumped in the ocean, now they have to find a new place for it. Unless it can be proved that the environment in New York and New Jersey is more fragile than in West Virginia, the West Virginia regulations must be equivalent to those of these states. Potentially huge quantities of sludge could be brought to West Virginia. These states and others that have responsibly handled large quantities of sludge, have rules built from experience. If West Virginia takes on these problems, the same rules are needed now.

There are no consequences for non-compliance; these are a must.

A sewage sludge processing facility should annually (in the summer time, on a Saturday) have a day when the public can inspect the facilities, ask questions, and receive answers. The owners, managers, and appropriate DEP representatives should be there.

The groundwater monitoring wells must be working and checked regularly.

The treated leachate must be monitored to prove statistically that it meets required standards.

The sludge should be brought to a ph of 6.2 before it is applied to the soil.

Specific Reference Comments -

3.1. Incorporates Federal regulations 40 CFR part 503 as in effect on the effective date of these rules. The 503 rules aren't that good. Perhaps a better way would be to use the best of them as part of these rules.

One would hope 503 rules would only get better; if these rules or any other rules are incorporated, they should apply as amended.

3.2.1.a. Delete , "unless the applicant can demonstrate to the Director that the land application will not cause runoff into streams or wetlands."

3.2.1.b. Amend to, "Land within 300 feet ..."

3.2.1.c. Amend to, "Land within 300 feet ..."

3.2.1.d. Amend to, "Land within 300 feet of an occupied dwelling."

3.2.1.f. Amend to, "Land within 200 feet of an adjacent owner's property line without written consent."

3.2.1.h. Amend to, "Land that has been tested and determined to have a ph of less than 6.5."

3.2.1.j. Amend to, "Land that has a seasonal high groundwater less than 5 feet from the surface."

4.2.1.g. Heavy metals, pathogens, toxins, vectors: These rules should define what tests are made, how often they are made, and what would keep it from being accepted at the facility.

4.2.2.e.J. There must be testing and reporting to show this is working. It must meet a standard.

5.1.1.f. Amend to, "Requirements to retain records for the facility for a minimum of thirty years."

Thank you.

Sincerely,

James D. Van Camp

James D. Van Camp
Vice-Chairman Tyler Co. SWA

"Out-of-State Garbage"

Why is it that "good," "just," "right," and "logic" seems to always give way to "greed," "injustice," "wrong," and "stupidity."? The pure indignity of the matter begs for "reasonable" resolution. "I'm going to take my garbage and dump it in your yard." "NO"! you emphatically say, "You can't do that, you are violating my property, my birthright, my ecology, and my natural resources. You must dispose of your own garbage in your own way and you cannot and will not violate my land."

Certainly, a reasonable dumper would agree with the dumpee and, in fact, personal property law would most likely support the dumpee's position and enforce the requirement that the dumper dump his trash elsewhere. Makes sense, seems reasonable--and the outcome described is supported by logic, justice, and good common sense.

Why is it then that when we elevate this illustration to the State level it becomes okay for one state to dump its garbage in another state. How can a citizen or a government official of West Virginia support the hills and valleys of this incredibly beautiful landscape being defiled by the trash and sludge of your sister states? Shame on you!

Of equal concern is the mentality of those in other states who think it's okay to dump one state's garbage in another state. Are the Pocono's of Pennsylvania more pristine than the hills of West Virginia? Let's haul garbage to the Pocono's, the Adirondack's, the Alleghenies, the Catskills . . . Let's defile Western Maryland, Southern New Jersey, the Berkshires of Massachusetts, the White's of New Hampshire and the Green's of Vermont . . . NO!, you say, . "you can't do that because you would violate the natural beauty, the ecological balance, and innumerable laws".

Ah, but I can in West Virginia.

Why is that? Interestingly, it is not the "Government" of any locality or state that is sending garbage to West Virginia. No, it is free enterprise that has turned West Virginia into the toilet bowl of the East. The

greedy Free Enterprise Set and stupid West Virginia politicians create a marriage made in heaven for the greedy Free Enterprise Set. The Free Enterprise Set is greedy because all they are about is making money. They charge municipalities in the congested Northeast corridor exorbitant fees to dispose of garbage and other waste (some of it hazardous). There is more waste created than can be disposed of at local facilities. What do they do? Well, they can build new facilities locally (at great expense, with stringent ecological requirements and high "tipping" fees) or they can haul the garbage and dump it elsewhere, someplace, say, where the "tipping" fees are peanuts, the ecological consequences are of no concern, and where I get little or no resistance from GOVERNMENT. Bingo! I'll dump my garbage in West Virginia. They (the State Government of West Virginia) welcome me, charge me very little, and have NO MECHANISM of SURVEILLANCE or AUDIT to monitor my compliance with any guidelines that might be in place. Can you imagine how the mind of the Free Enterprise Set must be boggled at the thought? Imagine, paying Wetzel County West Virginia 50 cents per ton (Yes, 50 cents per ton) to fill its landfill with garbage and other waste from other states. Just how stupid can the Government of West Virginia be to allow such an indignity?

If you're going to be the toilet for the Northeast, at least have the dignity and business acumen to be an EXPENSIVE toilet. Participate in the FREE ENTERPRISE SYSTEM. MAKE MONEY! GET YOUR SHARE! BE SMART! PLAY THE GAME! MATCH GREED WITH GREED!

Does anyone ever stop to think how the Free Enterprise Set can afford to BUY TRUCKS, HIRE DRIVERS, PAY SLICK LAWYERS, and DONATE significant sums of money to local charitable causes all in the name of dumping garbage in West Virginia instead of New York? Hello..o..o..o! There is a lot of money in garbage, and the Free Enterprise Set is growing RICH at the expense of the PEOPLE of West Virginia. WAKE UP West Virginians! Demand your share of the pie. Either get your share in an economic sense or PROTECT YOUR BIRTHRIGHT, YOUR ECOLOGY AND YOUR NATURAL BEAUTY. Do not allow yourselves to be had by those who care nothing about you or your State. Let every citizen be heard and let the message be loud and clear, "We will not be fooled by the Free Enterprise Set." Either our State gets RICH from your stinking garbage or you haul it BACK FROM WHENCE IT CAME.

Right, Justice, Common Sense, and Logic are on your side. Stupid politicians, slime lawyers, and greedy entrepreneurs are your foe. Good will always win out over evil.

Fight the fight now, before it's too late. Man can destroy in a decade what Mother Nature took millenniums to create. Do not allow the RAPE of West Virginia by the Free Enterprise Set go unchallenged. She's a beautiful state, West Virginia; a good State, and she deserves better than she's getting.

Remember the song, "The West Virginia Hills":

1. *We all have treasures*
   We call our own
   Mine are these hills
   I call my home
   Just let me live
   Till eternity
   in these hills
   God walks with me

2. *Yes, He walks these hills*
   These beautiful hills
   Where my soul is always free
   What a comfort to know
   You're never alone
   Cause God walks these hills
   With Me

Good luck and Godspeed,

Signed, Bob & Helen Burgess
RR 2 Box 21
New Martinsville, WV
26155

"A West Virginian At Heart"

CITY OF WHEELING

WHEELING, WEST VIRGINIA 26003

June 23, 1993

Division of Environmental Protection
Office of Waste Management
1356 Hansford Street
Charleston, WV 25301
Attn: Bill Rheinlander

Hand Delivered

RE: Comments on Sewage Sludge Management Regulations

Dear Mr. Rheinlander:

The proposed Sewage Sludge Management Regulations (Title 47, Series 38D) which are the subject of the public hearing, will have a dramatic impact on how Publicly Owned Treatment Works (POTW) operate in West Virginia. The City of Wheeling operates a wastewater treatment plant that produces approximately 8,000 tons of sewage sludge annually. Our current disposal method is to haul this waste to a licensed landfill and bury it. We believe this practice is not the best environmental solution for the disposition of this waste product in West Virginia, nor will it be the most economical for cities in the future as landfill tipping fees increase.

The City of Wheeling requested modifications to our landfill and NPDES permits which would allow us to develop a more economical and environmentally sound solution to our sludge disposal process. These permit modification requests were submitted prior to the legislative amendments to § 20-5F-2b of the West Virginia Code and the solutions were being designed to be consistent with, and meet all the requirements of Federal Regulations 40 CFR Part 503, which regulate sewage sludge.

Federal Regulation 40 CFR Part 503 recognizes and regulates different processing methods for sewage sludge and the disposition of the resultant product to insure environmentally sound and safe solutions to the problem. The regulations proposed by the Department of Environmental Protection appear to go beyond 40 CFR 503 in permit requirements for sewage sludge processing facilities and land application requirements. These extensions beyond the requirements of 503 will create extreme hardships on West Virginia communities attempting to resolve sludge handling problems consistent with the Federal EPA 503 regulations, and may eventually cause all sludge to be dumped into landfills.

The federal regulations recognize that there are better and more productive solutions than landfilling sewage sludge. Sewage sludge can be processed in a number of ways under the 503 regulations to end up with a very safe product for beneficial re-use. Once a processed product meets very rigid federal standards, it becomes safe for re-use in almost any environment for land application.

The federal regulations establishes two levels of sewage quality, Class A and Class B. Under the Part 503 regulation, fewer restrictions are imposed on the use of higher quality sludge (Class A.) In regard to land application, the federal regulations state *"A number of general requirements and management practices apply to sewage sludge that are land applied with the exception of 'Exceptional Quality' sewage sludge ..."* The 503 regulations states under Distributed and Marketed Products "... sewage sludge or material derived from sewage sludge that is considered suitable for distribution and marketing (D&M) for uses on lawns and home gardens, either in bulk or container form, must meet the Class A pathogen reduction requirements, a vector attraction reduction processing option, and the Pollutant Concentration limits (with the exception that sewage sludge which meets the pollutant Ceiling Concentrations, but no the Pollutant Concentration limits, can be sold in bags or other containers for use at sludge application rates prescribed on a label that are based on not exceeding the Annual Pollutant Loading Rates.) The Class A pathogen reduction requirements must be met at the time the bulk or containerized products are "sold or given away."

If sewage sludges are of "Exceptional Quality" - meet the Pollutant Concentration limits, Class A pathogen reduction requirements and a vector attraction reduction processing option - they are <u>usually exempt</u> to the general requirements and management practices applicable to land application practices.

The proposed West Virginia regulations do not seem to distinguish the categories of sludge between the Class A (Clean Sludge or Exceptional Quality) and Class B categories as do the Part 503 regulations. Nor do the West Virginia regulations provide incentives for West Virginia POTW's to produce Class A end products.

The fees associated with the regulation process again become a factor in the processing of sewage sludge to the Class A or 'Exceptional Quality' level, and should provide incentives for POTW's to produce a Class A product which is both beneficial to the producer and to the state. Anything less than a Class A or regulated Class B sewage sludge can be detrimental to the future of West Virginia environmentally.

The City of Wheeling hopes the Department of Environmental Protection will seriously consider the comments made at the public hearing and submitted in writing regarding the proposed regulations and make good constructive changes that will allow the City of Wheeling and other West Virginia POTW's to economically handle sludge disposal problems consistent with the environmentally sound solutions provided by 40 CFR Part 503.

I have attached to this letter a list of specific concerns with various sections of the proposed regulations, and would ask that these comments also be considered as part of the public record regarding the Title 47, Series 38D regulations.

Thank you for the opportunity to speak and submit comments regarding this very important issue for West Virginia.

Sincerely,

Jimmy E. Cumes
City Manager

Attachment

cc: Mayor Jack Lipphardt

City of Wheeling

Comments on proposed Series 38D Sewage Sludge Regulations.

2.13/2.14 - "Composting" should not be used as terminology. The terminology should reflect the new Federal 503 regulations. "P.F.R.P." or "E.Q.S." or "Class A" technologies are all terms that refer to a higher level of treatment.
This can include composting, Alkaline Pasteurization, or possibly pelletization. There are many other alternative technologies to composting, many are safer.
Does the definition of composting include N-Viro or do they recognize composting as an entirely different operation/process (which it is).
Similarly, "Composting Facility" means what? Can our operation be set up at another location in the same county and be considered part of the treatment plant or does it actually need to be connected. As P.F.R.P. treatment it could be argued that this was part of the wastewater treatment process.

2.25 - If a materials recovery facility does not include a composting facility, where would an N-Viro A.A.S.S.A.D. facility fall. Would it be considered a mixed waste processing facility?

2.33 - Sludge should be considered a recycled product after it has been subjected to an approved "Class A" treatment. At least with further restrictions (such as 50% solids content) this status should be attainable.

2.35 - How will incinerator ash be classified?

2.36 - This paragraph should include some of those technologies. "Alkaline Pasteurization" should be included. At this time there are only 8 In-Vessel composting facilities in operation in the country. There are over 30 Lime Pasteurization facilities.

2.44 - It does not appear that this article would allow lime sterilization to be performed, because when Lime Sterilization is wet it does give off offensive odors as does composted material. Alkaline Pasteurized material does not.

3.1 - Federal regulations set out a guideline for "Clean Sludge" or "E.Q.S." (exceptional quality sludge) with the intent to promote beneficial re-use. If the BIO-SOLIDS or products incorporating bio-solids are of a low enough contaminant level they are deemed safe enough for unrestricted sales. This will allow for the successful marketing of the final product. If the State of West Virginia would like to place more stringent requirements on these products, They might consider requiring a minimum of 50% dryness or a more restrictive fecal coliform count.

(3.1 con't) pH could also be a factor in this requirement. The N-Viro A.A.S.S.A.D. process is mentioned specifically in the E.P.A. 503 regulations as a E.Q.S. technology, where does West Virginia acknowledge this? (see E.P.A. 503 regulations attached).

3.2 thru 3.2.3. - These restrictions will eliminate the possibility of ever marketing sludge based products (even if generated locally) to the general public in the State of West Virginia. This is in direct opposition to the intent of the establishment of a "Clean Sludge" guideline. As this regulation is written, all technologies that seek to utilize the benefits of properly treated biosolids will fall under this restriction, regardless of the means by which the final product is produced or the final form that the product will take. Specifically:

3.2.1. This says "sludge will not be applied to land...". N-Viro Soil, or Alkaline Pasteurized Biosolids is a product and is not sludge.

3.2.1.e. - This will eliminate the possibility of the use of Alkaline Pasteurized Biosolids in Department of Transportation projects such as re-seeding after construction and for erosion control. This is one of the most exciting opportunities in the recycling of properly treated material.

3.2.1.g. - This restriction does not include any acceptable distance. If the run-off from the material is clean then this restriction would be unnecessary. There should at least be a table of acceptable distances and/or acceptable levels of contaminants in the runoff.

3.2.1.h. - This would eliminate the use of ALKALINE treated Biosolids on disturbed lands as a way of raising the pH. Such as around strip mines , construction sites and on reclamation projects. This seems to be intended for application of sludge that is acidic. It has been well documented that ALKALINE PASTEURIZED biosolids are an effective amendment product for raising the pH of lands like these. Even in one time applications.

3.2.1.i. - This would eliminate the use of these products for erosion control on slopes, a very appropriate use for some biosolids based products. This also has been documented.

3.2.1.k. - Again this would limit the use around strip mine areas (the areas in most need of soil amendment). N-Viro Soil, if blended with clay results in an acceptable topsoil material. It has a stable pH and exhibits the characteristics of soil.
Heavy Metals are bound in an insoluble metal hydroxide salt coating, much the same way as heavy metals present in any soil material. The contaminants are permanently bound (unless, as with native soils, they are heavily stressed with acid). N-Viro Soil has been used as landfill cover, structural/construction fill material, a soil amendment, ag-lime and fertilizer with no adverse affects to the environment.
Would this material (blended or unblended) qualify as soil that could be utilized to achieve this 20" requirement?
If so, then this restriction should not apply to land application of N-Viro Soil. (The U.S. E.P.A. has recognized Chemical Fixation as "the best demonstrated available technology to immobilize heavy metals".

(3.2.1.k. cont'd) Composting does nothing to immobilize heavy metals, in fact if the resulting compost is on the acidic side, heavy metals could continue to leach from this material indefinitely. Clearly the A.A.S.S.A.D. process deserves recognition above that of compost for land application for this reason.

3.2.1.1 - This seems overly restrictive and should have other parameters, such as depth of topsoil, clay or bedrock. In addition just as above, N-Viro Soil should be blended with this material to make a better product.

3.2.3. - These Dry Ton limits should not be so low for all circumstances. This may work for ag. application, but in strip mine reclamation applications and in some landfill cover or maintenance applications this could prevent the goal from being achieved. This should have additional parameters allowing certain quality material greater leeway.

3.3.1.a. - This makes no provision for clean runoff and does not define what level of contaminants are acceptable/unacceptable. In addition if the processing site is located at the landfill (which is already lined, with a leachate collection system, then this is redundant.

3.3.1.d through 3.3.1.d.D. - These restrictions could unnecessarily prevent the recycling of Biosolids in the State of West Virginia due to cost. Again "Clean Sludge" or E.Q.S. Biosolids should be treated differently than extremely contaminated "Class B" materials. These restrictions may be written for in-vessel composting. They are extremely restrictive and overly protective. The result will be increased costs that will cause clean re-usable Biosolids to be dumped in a landfill for disposal. Again, there should be exceptions for material that has been treated to a safer level or for material that may be "safe" before treatment.

3.3.1.d.b. - If the installation were on solid rock, would a clay liner still be required? Solid rock is certainly more impenetrable.

3.3.1.d.c. - What exactly defines a "Leachate detection zone?"

3.3.1.d.D. - A final surface should also have the option of being 8" of Dense Graded Aggregate (compacted) and 4" of Asphalt as an alternate to the 6" of concrete.

3.4.1. - The question again comes up - N-Viro Soil (or A.A.S.S.A.D. pasteurized Biosolids) is not sludge, and water that comes in contact with it should not have to be handled in any special manner. This has been repeatedly tested-and proven. This product can be stored in the open indefinitely.

3.6. thru 3.6.1. - This regulation does not take into account final product that may be used as landfill cover. Some Class A processes (like the N-Viro Process) result in a final product that is no more sewage sludge than gasoline is crude oil or wastewater is clean effluent.

(3.6 thru 3.6.1 cont'd) If this material were to be judged based on 25% of the total waste disposed of at the landfill, then once again an opportunity to recycle biosolids will have been lost. There should be restrictions on the suitability of Biosolids derived products as landfill cover (such as 50% dryness, compaction or permeability, pH, and vector attraction) this restriction is far to broad to be sensible.

4.1.3. This seems to say that the operation could be placed at the sewage treatment plant. Is this true?

4.1.5. - This paragraph should allow for variances of permits-by-rule at the discretion of the State.

4.2.1.g. - This should read (.....or final product)

4.2.1.h. - This is to restrictive for the sale of E.Q.S. material. This regulation will severely inhibit a marketing program for Class A or E.Q.S. products.

4.2.1.j. - This should read (....unless granted a variance by the State)

4.2.2. - Again, can the mixing operation for an A.A.S.S.A.D. facility be put at the wastewater treatment plant?

4.2.2.c.E and 4.2.2.c.F - These paragraphs should refer to "E.Q.S." or "P.F.R.P." or "Class A". There are other appropriate technologies and the word compost is not only a competitive advantage for compost system vendors, it is misleading.

4.2.2.c.H. - The N-Viro Process in Wheeling will use Fly Ash. This is not a "bulking agent". It is required for pH maintenance and for further drying. The definition of a bulking Agent should be clarified.

4.2.2.e.F thru 4.2.2.e.K - These regulations are written specifically for in-vessel composting systems. Not only do they fail to address other technologies they imply a preference from the State's perspective and are therefore unfair. They should be removed or amended appropriately.

4.2.3. - It is our understanding that under the Federal E.P.A.'s 503 regs. that P.F.R.P. processes such as the N-Viro A.A.S.S.A.D. do not require some of the regulations stated. In fact, N-Viro Soil is considered so safe that it is the only sludge based product available in the world that can offer Product Liability Insurance (through C.N.A. a national Underwriter). This at least demonstrates the level of safety that these products can achieve. (Please see attached 503 regulations, see note on page 8, 5th paragraph)

4.2.3.a. - If marketing a "Clean, E.Q.S., Class A" or other such treated final product this amount of information is unrealistic and will impede marketing efforts drastically.

4.2.3.c. - This is also overly restrictive. If the material qualifies as a clean material it is operationally impossible to provide this level of detail for every single end-use. These uses could be yards, maintenance on bare spots, construction sites etc. At the higher level of treatment Biosolids derived fertilizers, ag-limes, and soil amendment products are generally much "cleaner" than commercial fertilizers. Commercial products do not have this restriction and if the Biosolids derived products cannot compete on a cost and convenience basis, they will not be purchased and the recycling program will fail.

4.2.3.f and 4.2.3.g - Sometimes the owner of the property does not know this information. This is impractical!

4.2.3.i. - N-Viro Soil is not sludge!

4.2.3.n. This is another reason to establish a mechanism for higher application rates of E.Q.S. products. It has been repeated demonstrated that Alkaline Pasteurized Biosolids, for one, can improve the pH of acidic soils indefinitely after only one application. Carey Technologies has achieved this on soils with a pH as low as 2.3 with applications of 70 to 100 dry tons per acre. (relatively little considering the resulting vegetation and improvement of water quality- no additional applications have been required.

5.3 this whole section should exempt E.Q.S. products or at least set guidelines for cleaner or diluted materials.

5.3.4. - N-Viro Soil has been cleared by the 503's to be spread on food chain crops.

6.3.1 and 6.3.2 These fees should be reduced according to the level of treatment that the material has undergone. Land Applying Class B liquid is not the same as a farmer using a registered fertilizer made from Biosolids that have under gone treatment from a class A technology. The use of a fee system to support inspection and fund research is good, however these fees are excessive and could prevent recycling from taking place due to the competitive bidding process (it could always be cheaper to dispose of in the landfill). In addition by applying these fees "across the Board" the State is contributing to the removal of any incentive that a generator may have to seek a higher and safer level of treatment for his/her Biosolids. What exactly is a material derived from sewage sludge? This needs to be defined. Why do smaller operations subject to less treatment pay less than operations with pre-treatment requirements?

6.6.3. - Municipalities and Landfills should be able to make cover out of their own products--particularly if these products can be used without further permitting--according to the 503 regs. mentioned in this document.

Appendix A - Again these rates are excessive. Specifically the frequency of monitoring for 1,500 to 15,000 and over 15,000 dry ton facilities. It could be estimated that a facility generating over 15,000 dry tons per year would spend over $150,000 in testing alone. If these guidelines are not reduced it will contribute further to higher costs, again reducing the realistic opportunities to recycle this valuable (if properly handled) resource.

WETZEL COUNTY SOLID WASTE AUTHORITY
P.O. Box 192, Proctor, West Virginia 26055

Office of Waste Management, DEP
1356 Hansford Street
Charleston, WV 25301
Attention: Bill Rheinlander

June 16, 1993

Dear Mr. Rheinlander,

The Wetzel County Solid Waste Authority would like to submit the following comments regarding Title 47, Series 38D, "Sewage Sludge Management Regulations". While our authority recognizes the time constraints and the enormity of the task of promulgating these rules in a timely fashion, we also feel it is imperative that these rules and regulations reflect the intent and will of the legislature. They clearly do not.

In reviewing this document, we found so many gross inconsistencies not only between these rules and regulations and the intent of SB 288 but within the document itself that it was difficult to determine whether our recommendations should be to change specific passages or to start from scratch. We chose to offer specific comments as well as offer the strong suggestion that the writers of these rules and regulations go back to the drawing board and make the rule reflect the contents and intent of SB 288.

The Fiscal Note for a Proposed Rule states that there will be no fiscal change as a result of these rules and regulations. This statement is false. Up until the time the Office of Waste Management was transferred from the Division of Natural Resources to the Division of Environmental Protection, sewage sludge processed and placed at the Wetzel County Landfill was counted against the monthly tonnage and all applicable solid waste fees were applied.

After the transfer of the Office of Waste Management to the Division of Environmental Protection, sewage sludge processed and placed in the Wetzel County Landfill, with the exception of New Martinsville, Jefferson County Ohio, and Paden City, was exempt from all tipping fees and not counted against the monthly tonnage. There were many contracts either in the process of negotiation or already signed, but the one contract that was closely scrutinized was from Nassau County, New York. This single contract was for 108,000 tons of sewage sludge per year to come to Brooke and Wetzel counties. Until SB 288 was passed, Director Callaghan's policy of not counting sewage sludge composted at and placed in a solid waste facility was costing the state $1 million per year for the Nassau County contract

alone. It was costing the host county solid waste authorities $49,000 per year. Nassau County was the tip of the iceberg. We soon learned of a signed contract with Westchester County and proposed contracts with Jamaica, NY; Bergen County, NJ; to name a few.

These rules and regulations also impose fees upon local POTW systems for land application and remediation. These fees are substantially lower than landfilling. These rules and regulations would also require that extensive capital be spent to comply with stringent sludge containment requirements that could price small generators of sewage sludge out of the composting business. This entire provision is ignored under the fiscal note provision of B.1. Economic Impact on Political Subdivisions: No impact.

The Fiscal Note should give direct reference to the fees required to be collected by solid waste facilities processing sewage sludge that is required under 20-5F-2b(e). Using the figures from 1992, the fiscal note should include the programs that will benefit by resuming the policy of counting sewage sludge as solid waste when it is handled at a solid waste facility.

Our second specific objection is to 47-38D-1.5. where federal rules are incorporated by reference. One of the primary reasons other states are targeting West Virginia as a sludge depository is the lack of rules and regulations that are more stringent than 40-CFR-503. New York, New Jersey, Pennsylvania, Maryland, Ohio, Virginia and Kentucky are but a few states that have discovered the weakness in the EPA 503 rule and have established rules more stringent than current EPA guidelines. More importantly, there are specific portions of EPA 503 rule that are in direct contradiction to the mandate of West Virginia Code. These contradictions must be reconciled to reflect the legislative intent of West Virginia Code.

On page 2, section 2.8 of the proposed rule there is a definition of a "Class A Sewage Sludge Processing Facility". Since such a facility would be the same as a "Class A Facility", referred to in 2.7, we find the definition of a Class A Sewage Sludge Processing Facility to be redundant and respectfully request that it be removed from the definitions. Since sections 2.9 and 2.10 would also be classified as solid waste facilities, the definitions of Class B and C Sewage Sludge Processing Facilities would also be redundant. These two definitions should be eliminated as well.

On page 6, section 2.43 in the definition of "Source Separated Organic Materials", we would like to see the inclusion of the following language after the final word "septage." to be amended to "...septage, or wood waste that consists of treated lumber."

On Page 7, 47-38D-3 STANDARDS FOR USE, DISPOSAL AND PROCESSING OF SEWAGE SLUDGE starting with section 3.1 Incorporation of Federal Regulations; we must again vigorously object to the blind incorporation of 40 CFR part 503 rule. The 503 rule is not only in direct contradiction to the newly adopted SB288, but it is even weaker than existing rules for land application of sewage sludge currently administered under the Office of Water Resources, under the direction of Dr. Eli McCoy.

Section 3.2 also needs many changes. This section is also a watered down version of the current rule followed by Dr. McCoy. There are other more stringent models that would enhance the protection of West Virginians while protecting the on-going practice of small scale controlled land application of sewage sludge that has been occurring for years. The legislature intended to protect the current policy of 75% of the POTW's land applying sewage sludge with minimal impact. Our Authority supports the legislature's efforts to this end.

Our Authority suggest the following changes:

3.2.1.a. Should read, "Land that is frozen, snow-covered, or known to be flooded on a regular basis." Delete all subsequent language in this sub-section.

3.2.1.b. Amend to, "Land within 300 feet..."

3.2.1.c. Amend to, "Land within 1000 feet..."

3.2.1.d. Amend to, "Land within 1000 feet of an occupied dwelling or within 600 feet of an occupied dwelling with the signed consent of the owner of said dwelling.

3.2.1.e. Amend to, "Land within 50 feet of any public highway or road."

3.2.1.h. Amend to, "Land that has been tested and determined to have a pH of less than 6.5"

3.2.1.i. Amend to, "Land that has a slope greater than 6%."

3.2.1.j. Amend to, "Land that has a seasonal high groundwater table less than 5 feet from the surface."

3.2.2 refers solely to soil concentration limits referred to in the 503 rule. This is in direct contradiction to West Virginia Code 20-5F-2b(b)(6). The 503 language gives reference to the contaminants within the sludge applied without factoring in the pre-existing contaminants within the soil. 20-5F-2b(b)(6) specifically requires the DEP to do a statistical analysis of the pre-existing elements of the soil that will receive sludge.

It is the responsibility of the DEP to establish maximum loading limits and apply those limits based upon what already exists in the soil combined with the contaminants present in the sludge to be land applied. Should the combined total of contaminants within the soil and contaminants within the sludge exceed the maximum loading limits, land application at that site should be prohibited.

The Authority further recommends the following be added after 3.2.3., "3.2.4. No land within a solid waste

facility, but outside a landfill disposal cell, be allowed to accept the permanent application of so much sewage sludge as to exceed the agronomic rate or a rate of fifteen dry tons per acre per year, which ever is less." This language is lifted verbatim from the code and would prohibit the so called sludge dedication sites referred to in in 40 CFR section 503.

Section 3.3. SEWAGE SLUDGE PROCESSING FACILITY OPERATIONAL AND DESIGN REQUIREMENTS (beginning page 8)

3.3.1.c. Amend to, "The facility must not be operated or constructed within the one hundred year flood plain." Delete everything else.

In sections 3.3.1.d., including A.through E., our Authority supports these stringent specifications when they apply to large scale generators or importers, but when applied to small scale facilities, this yardstick seems inappropriate. While a household generates garbage that is collected in a container and that garbage generates lechate, the law doesn't require a home owner to build a miniature landfill. While construction and demolition landfills do require some environmental safeguards, they are not nearly as stringent as those that apply to solid waste landfills. By the same token, it is unfair to place small municipalities in the same playing field as major metropolitan areas. The environmental rule in West Virginia needs to incorporate the amount of sludge generated combined with the toxicity of any sludge generated or imported.

The Wetzel County Solid Waste Authority would support language that would adjust the environmental requirements according to the quantity and quality of sewage sludge generated. A good place to start would be to require sewage sludge processing facilities generating 500 tons per monnth or less to have an asphalt pad in lieu of the stringent liner requirements for larger facilities.

3.6. Amend to delete the final sentence, "Alternative sludge disposal methods can be utilized upon obtaining written approval from the chief." This gives the chief entirely too much latitude and exempts propsed disposal alternatives from public notification or comment.

47-38D-4 PERMITS REQUIRED

4.1.2. In order for this section to reflect the code, 20-5F-2b(12)(c), it should read as follows: "For those publicly owned treatment works (POTW) which produce sewage sludge and are regulated by the division pursuant to an NPDES permit required under article five-a of this chapter, a sewage sludge processing permit shall be a part of the existing water pollution control permit and shall include a sewage sludge management plan approved by the chief."

4.1.3. The Wetzel County Solid Waste Authority has many major problems with this section not only as it applies to Wetzel County but the impact it will have upon the entire state. Quite candidly, this sub-section creates wretched state policy.

The permit issued to the Wetzel County Landfill, permit #SW-1021-92 under E. Permit Conditions section 1. states "This facility has submitted the Module A (NPDES) Application....Incorporation of Module A into the Solid Waste Facility Permit is required and will constitute a "major modification" and all related regulatory requirements must be met thereunder.". Yet 4.1.3. states that "...a sewage sludge processing facility MODIFICATION WILL BE OBTAINED (emphasis ours) as a part of the existing solid waste permit and shall include a sewage sludge management plan.".

It treats a sludge processing facility as a minor modification. There are no provisions for public input, no requirement that such a drastic change in land use would have to comply with the county or regional solid waste authority's siting plan, no requirements of county or regional solid waste authority approval. Furthermore the language "will be obtained" nearly implies a mandate that the DEP grant a sludge processing facility modification to ANY permitted solid waste facility, be they a recycler, a transfer station or a landfill. The requirements for a permitted solid waste facility to receive a "sewage sludge processing modification" are less stringent than those required for POTWs under 20-5F-2b(12)(c). POTW's are required to receive a permit while permitted solid waste facilities are required by the proposed rule to only obtain a modification.

It is the opinion of the Wetzel County Solid Waste Authority that any permitted solid waste facility seeking to process sewage sludge should obtain a permit as required for POTW's, and that such a permit be subject to the provisions established within the local or regional solid waste authority's siting plan. If sewage sludge processing facilities are expressly or tentatively prohibited within the host county's plan, or the area proposed for sewage sludge processing has not been designated an acceptable area, the permitted facility must obtain approval from the regional or county solid waste authority before the DEP can issue the sewage sludge processing permit.

In the same manner POTWs are required to obtain an additional permit even though the volume of sewage and sludge remains constant, permitted solid waste facilities would be seeking a permit for a new activity upon a pre-existing site. They would still be bound by the tonnage limits and fees required in 20-5F-2b(12)(e). Obtaining a sewage sludge processing permit for a permitted solid waste facility should be treated as a MAJOR MODIFICATION to an existing solid waste facility permit and subject to the provisions of 3.18..

4.1.4. Amend after the words "Series 38..." by adding "and any and all Certificate of Need requirements as required by the Public Service Commission."

4.1.5. Should be amended to add provisions within the code that require public participation.

4.2. GENERAL, PROCESSING FACILITY, AND LAND APPLICATION PERMIT REQUIREMENTS.

4.2.1.i. Since the 503 rule is very weak in the area of quality control and this section references all of 40 CFR, Part 503, we recommend rewriting this entire section. This rewrite should include an analysis for heavy metals to include but not be limited to arsenic, cadmium, chromium, copper, lead, molybdenum, nickel and zinc and a testing for toxic and hazardous materials using toxic characterization and leaching property (TCLP) tests. Standards should also be established for refusing sludges that test too high for specific toxins or heavy metals.

4.2.2.a.A. Please amend to "A regional map, or maps (of appropriate scale that delineate SEWAGE SLUDGE PRODUCING AREA..." As this subsection reads now, a sewage sludge processing facility could simply locate every POTW sending sludge to their facility. This wouldn't reveal whether the POTW was receiving large quantities of waste water from industry or residents nor would it reveal the size of the population serviced. By amending the regional map to delineate the sewage sludge producing area, you will have a clearer picture of the types of customers feeding into any contributing POTW.

4.2.2.c.E. Please amend to include the following after the final word, "conditions;" to,"to include a landfill that will accept the unused product. Any finished compost may not be stored on site for a period of more than 120 days. After 120 days, any finished compost must be applied within accordance with these rules and regulations or landfilled;"

4.2.2.e.I. " The expected mass balance through the composting system;" should be deleted. This is the creation of a formula to anticipate the difference between the weight of uncomposted sewage sludge and the weight lost due to composting. We assume the purpose is to credit a solid waste facility for the compost that leaves the facility for land application purposes and exempt composted sludge leaving a solid waste facility from the fees required by 20-5F-2b(12)(e).

There are many problems with using such a blanket formula. All sludge is not equal. While our rules and regulations require sludge to be at least 20% solid by weight, the city of New Martinsville's sludge is over 50% solid by weight. If the formula used assumed that every ton of sludge processed was 20% solid by weight, it would take

five tons to equal one ton of sewage sludge subject to the tipping fees, while in many cases, the actual case would be two tons would equal one ton. The state would be losing $8.25 per ton for every ton that would slip through the cracks using this formula.

Furthermore, this formula assumes that all sludge will be composted effectively and the 80% water will be removed. Again, every miscalculation of this formula will result in a loss of revenues of $8.25 per ton to the state.

The only equitable way to compensate a solid waste facility for the compost that leaves the facility is to credit them for the actual weight that leaves the facility. Therefore, the Wetzel County Solid Waste Authority recommends the following replacement language for 4.2.2.e.1. "All applicable fees required by 20-5F-2b(12)(e) shall be paid as proscribed by this chapter on any sewage sludge entering a solid waste facility based on the actual weight of the sludge as it enters the facility. Any composted sewage sludge leaving the solid waste facility shall be weighed and the actual tonnage leaving the facility shall be deducted from the monthly tonnage and all fees as proscribed under 20-5F-2b(12)(e) shall be waived;". This language would specifically spell out your intent. It may be better placed in 47-38D-6 Fee Assessment, however we found no reference any place in these proposed rules and regulations that dealt with the fees mandated by 20-5F-2b(12)(e). Perhaps this language should be replacement language for 6.3.3.

4.2.3.n. Please amend "maintain the soil to a minimum pH of 6.5..." and include language for penalty assessments for non-compliance.

47-38D-5. GENERAL, PROCESSING FACILITY, AND LAND APPLICATION PERMIT REQUIREMENTS.

5.2.3. Kiln dust in many states is actually the ash from unregulated, unmonitored hazardous waste incinerators, since many cement kilns burn hazardous waste for fuel and have carved a neat little exemption for themselves under federal law. Our Authority would urge the prohibition of kiln dust from any sewage sludge processing facility, landfill, composting facility, or land application. If we do accept kiln dust, it should be treated as special waste and TCLP, heavy metal and most importantly PCB and dioxin testing should be done on any proposed acceptance of kiln dust. The most stringent standards we can find should be applied to kiln dust.

47-38D-6. Fee Assessment

6.1. Please amend "Any person required to obtain a solid was facility permit pursuant to these regulations" to "Any producer or importer of sewage sludge or product thereof

shall be subject to...". The purpose of this proposed amendment is to close any loophole that may exist in this proposed rule.

6.3.3. Please see our comments on 4.2.2.e.I. In addition, we object to the dedication of these fees solely to the Solid Waste Enforcement Fund. There are many other places these fees apply, specifically the 50 cents per ton to the host county solid waste authority not to mention the recyling fund the $1 per ton for the Solid Waste Management Board, the landfill closure fund to mention a few. The code, 20-5F-2b(12)(e), states that, "All Sewage sludge placed in, or upon, or used by a solid waste facility or processed or handled, pursuant to a permit issued by the division of environmental protection, shall be subject to the same tipping and other fees levied by this chapter on the disposal of solid waste..." Please note there is no codified dedication of fees solely to the Solid Waste Enforcement Fund. Furthermore, 6.3.3. ignores the inclusion of the optional host county fee that can be assessed.

A section that is missing from these regulations is 47-38D-7 Enforcement. There are absolutely no consequences under this rule for non-compliance. Our Authority suggests language be adopted to issue citations for non-compliance and place the offending generator or importer on a compliance schedule to remediate the violation. We further suggest if the violator doesn't come into compliance within the time frame required, fines be levied. We further suggest that language be included to authorize the director to revoke the permit of an importer or generator of sewage sludge that doesn't comply or repeatedly violate the provisions of Chapter 20 and these rules and regulation in regards to sewage sludge. Language that spells out the appeal process should be included in this section as well.

Another item that is absent from this proposed rule is any reference to the role of the Office of Water Resources. Our Authority would like to see a section of this proposed rule clearly defining the role of the Office of Water Resources. It is our understanding that Dr. McCoy's office currently oversees the land application of sewage sludge and the issuance of NPDES permits for POTWs. The specific roles of both the Office of Waste Management and the Office of Water Resources should be clearly spelled out in the proposed rule to avoid any future confusion.

The Wetzel County Solid Waste Authority would like to see these rules and regulations have as little impact as possible on local POTWs. In the drafting of the many versions of what is now known as SB 288, the intent of the legislature was consistently to draft language that would have minimal impact upon local POTWs and to simultaneously avoid any unconstitutional differential treatment of waste coming into West Virginia.

In codifying limits to the size of sewage sludge facilities and rates of land application of sewage sludge, the legislature was trying to protect the citizens of the state from being the recipients of vast quantities of sewage sludge. They accomplished this by requiring responsible land use policies be adopted in regards to sewage sludge.

The purpose of these lengthy and specific comments has been to ensure the legislative intent of SB 288 would remain intact. It is our sincere hope that you will amend your proposed rules and regulations to reflect West Virginia code, treat local POTW's gently, and protect West Virginians from becoming host to America's sludge pit.

Martha Huffman
Wetzel County Solid Waste Authority

Natural Resources
Defense Council

40 West 20th Street
New York, New York 10011
212 727-2700
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May 19, 1993

Part 503 Sewage Sludge Use and Disposal Rule
Comment Clerk
Water Docket MC-4101
Environmental Protection Agency
401 M Street, SW
Washington, D.C. 20460

Re: **Comments on Cadmium Standards under Final Rule, Standards for the Use or Disposal of Sewage Sludge (58 Federal Register 9248 et seq., February 18, 1993)**

To the Comment Clerk:

The Natural Resources Defense Council ("NRDC") and the Environmental Defense Fund ("EDF") submit these comments on the cadmium standards under the "Final Rule, Standards for the Use or Disposal of Sewage Sludge" (58 Federal Register 9248 et seq., February 18, 1993). The Preamble to the Final Rule provides that "EPA welcomes additional data and analyses related to [the cadmium] standard and will consider any such additional information received by the Agency within 90 days of publication of today's rule." (58 Federal Register 9276).

NRDC and EDF submitted joint comments on the "Proposed Rule, Standards for the Disposal of Sewage Sludge", on August 7, 1989, and has met with EPA representatives on numerous occasions to present our views on the final provisions of the Part 503 Rule.

NRDC and EDF are very concerned that the cadmium standards under the Final Rule for the cumulative application of sludges and for APL sludge do not meet the requirements of the Clean Water Act, Section 405(d)(2)(D) to "adequately protect

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public health and the environment from any reasonably anticipated adverse effects" of cadmium-polluted sludge. Therefore the cadmium limits should be revised to ensure adequate protection. We recommend that the standards be revised to provide an application limit of at most 21 mg/kg, and an APL limit of at most 21 mg/kg.

It should be noted that our proposed standards are consistent with a 1981 Interagency Policy Statement on Sludge Use on Land for the Production of Fruits and Vegetables. That Statement was a joint statement of EPA, the U.S. Department of Agriculture and the U.S. Food and Drug Administration. Given EPA's reversal on the proper cadmium standards, both the USDA and the FDA should be given full and ample opportunity to offer comments on the 39 mg/kg cadmium standards of the Final Part 503 Rule and EPA should be required to respond to their comments fully and adequately.

Revision of the Final Part 503 Rules according to comments received during this comment period should proceed expeditiously; at the very latest, revisions should be integrated in the Rule and the Rule fully promulgated by October 1, 1993 (allowing over four months for the revision process). Revision should not delay progress on Round II of the Part 503 Rule.

Our comments are:

1. **Cadmium Poses A Greater Risk When Applied to Acidic Soils Yet EPA Bases its Cadmium Limit Primarily on Data From High pH Soils**

EPA has set a cadmium limit of 39 mg/kg. That limit is based in part on data concerning cadmium uptakes where cadmium-polluted sludge was applied to largely high pH soils. However, cadmium uptake is greater, and cadmium poses a greater risk, in acidic soils.

EPA was presented with considerable information on the issue of cadmium uptake on acidic soils by representatives of the U.S. Department of Agriculture, and yet failed to take such information into account and lower its cadmium limits to conform with USDA proposals. Furthermore, EPA failed to include pH requirements in the Final Rule to ensure that the assumptions made in determining the 39 mg/kg limit (i.e., high pH soils) would prove true in actual land application of sludge under the Rule.

Acidic soils make up approximately half the agricultural lands in the United States. In the Northeast, an area where large-scale sludge application programs are being considered as the nine ex-ocean dumpers develop their long-term sludge management program, the soils are predominantly acidic.

Because of the greater risks of cadmium uptake in acidic soil, and because of the great acreage of acidic soils used by U.S. farmers, NRDC and EDF recommend that the

cadmium limit for land application and APL sludges be lowered to at most 21 mg/kg. Information presented by the USDA indicate that such a limit would provide adequate protection of public health and the environment from sludge applied on all soils.

2. **EPA Used A Geometric Mean to Determine Dietary Intake of Cadmium, Despite the Reality of Human Consumption**

The EPA calculated dietary uptake of cadmium utilizing geometric means of daily intakes. However, individuals eat the sum of cadmium in their diet over their lifetime (calculated by arithmetic means), not the geometric mean of daily intakes multiplied by the number of days exposed. Thus, the sum of actual intakes is likely to be greater than the geometric means summed across the days of exposure.

As the USDA has pointed out in comments to EPA, the use of arithmetic means results in a lower cadmium limit, consistent with our recommendation that the cadmium standards be changed to at most 21 mg/kg.

3. **EPA Underestimated the Total Risk to the Home Gardener**

In determining risk to the home gardener from cadmium-polluted sludge, the EPA failed to take into account that not only will the home gardener consume his/her own products but also other products potentially grown with sludge, including grains and produce. Thus the rate of daily cadmium ingestion will in fact be higher than assumed by the EPA.

In order to provide adequate protection to the home gardener, we recommend that the sludge APL standard for cadmium be lowered to at most 21 mg/kg.

4. **The National Sewage Sludge Survey Indicated that a Cadmium Standard of 21 mg/kg is Currently Achievable**

The National Sewage Sludge Survey indicated that a significant amount of the sludge produced nationwide can currently meet a cadmium standard of 21 mg/kg. Furthermore, the survey's data indicates that feasible improvements in pollution prevention and industrial pretreatment could bring virtually all sludges to such a standard or lower.

NRDC and EDF are very concerned that EPA's cadmium standard will result in a backsliding of sludge quality and a reduced commitment to pollution prevention and pretreatment. Not only will the risks of land application of sludge therefore be unnecessarily (and unreasonably) increased, but it is likely that effluent quality from sewage treatment plants will degenerate, resulting in degradation of receiving water quality.

The 1987 amendments to the Clean Water Act, including both the anti-backsliding provisions and the 405(d) provisions, demonstrate Congress' clear intent that regulations governing sludge and water quality promulgated under the Clean Water Act should not result in a backsliding of sludge and effluent quality.

Given the current status of sludge quality in the United States, and the ability of all sludges to meet a cadmium limit of at most 21 mg/kg, EPA should require no less in its rule.

5. **The Export of Grains Will Be Jeopardized by EPA's Cadmium Standards**

Despite repeated entreaties from USDA, EPA has refused to recognize the serious impact its cadmium standards will have on the ability of U.S. farmers to export agricultural products grown with sludge. Not only may farmers be subjected to increased and expensive testing/certification requirements when exporting grains, but those products will be rejected if grown with sludge conforming to EPA's standard of 39 mg/kg. According to the USDA, the economic losses associated with increased certification requirements and loss of overseas markets will be significant and potentially devastating for some farmers.

6. **The USDA May Come Out with Its Own, More Stringent, Cadmium Standards To Protect Farmers That Will Conflict with EPA's Standard and Undermine Public Confidence in Beneficial Use of Sludge and in EPA**

The USDA has raised serious issues to EPA concerning the cadmium standards for land application of sludge, including concerns over acidic soils, export grains, and the economic viability of farmers. Because EPA has not responded to those concerns, there is a possibility that USDA will issue its own guidance to farmers on sludge use, which will include more stringent cadmium standards.

If the USDA comes out with its own standards, a message will be sent that EPA cannot ensure adequate protection of public health and the environment, and public confidence in EPA and in the Part 503 Rule for Sludge Use and Disposal will be undermined. NRDC and EDF urge EPA to work with USDA in resolving the issues of concern: both agencies have a responsibility to coordinate and harmonize their activities to send a clear meassage to the regulated community and to the public about the benefits of sludge reuse.

We recommend that in order to address the issues identified by USDA, EPA revise its cadmium standards to at most 21 mg/kg for land application and 21 mg/kg for APL sludges.

7. **The Opinion of the Food and Drug Administration Should Be Solicited on the Appropriate Standards for Cadmium**

It has come to the attention of NRDC and EDF that the FDA did not offered official comments on the proposed 503 Rule, including the proposed cadmium standards. We recommend that during the period set aside for review of comments received on the final cadmium standards, official comments of the FDA be solicited. In addition to clear jurisdictional interest over the matter of agricultural products grown with sludge, the FDA has expertise that could be very useful to the EPA in determining the adequacy of its cadmium standards.

Furthermore, the FDA was a signatory, along with EPA and USDA, to the 1981 Interagency Policy Statement on Sludge that recommended a 25 mg/kg standard for cadmium, along with EPA and USDA. Given the dramatic reversal of EPA on the appropriate standard for cadmium, the FDA must be fully briefed on EPA's reasoning and given an opportunity to offer official comments on the 39 mg/kg standard.

Thank you for this opportunity to offer comments on the cadmium standards in the Final Part 503 Rule. We look forward to working with you further on this and other issues presented under the Part 503 Rule.

Sincerely,

Nina Sankovitch
Senior Project Attorney
Natural Resources Defense Council

Sarah Clark /nms

Sarah Clark
Senior Scientist
Environmental Defense Fund

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John M. Ranson
Cabinet Secretary

David C. Callaghan
Director

Ann A. Spaner
Deputy Director

June 25, 1993

MEMO TO: Ann Spaner, Eli McCoy, Bill Brannon and Clifton Browning

FROM: Bill Rheinlander BR

SUBJECT: Sewage Sludge Comments

Enclosed is a complete copy of the sewage sludge regulation comments we received during the recent 30-day comment period.

Enclosures

January 22, 1993

Note to: Carol Browner, Administrator

From: Richard Guimond, Acting Assistant Administrator,
Office of Solid Waste and Emergency Response

Subject: WTI Incinerator Issues

BACKGROUND: This note is to bring you up to date on the activities we have underway to evaluate the issues relative to the Waste Technologies Incorporated (WTI) incinerator in Ohio. This incinerator has obtained all of the necessary permits to conduct a trial burn. However, strong opposition from local citizen groups has led to a court hearing (which was to have been today but has been postponed until February 8) on whether a temporary restraining order should be imposed to prevent operation of the facility. WTI has verbally agreed not to commence the trial burn or limited commercial operation until after the hearing.

ISSUES: The immediate issue is whether the WTI risk assessment prepared by EPA is adequate. This assessment, which by EPA policy is site-specific, showed that risks from the incinerator emissions (including emissions of dioxins) were within the range of risks historically considered acceptable by EPA. A longer term issue, which will require Agency-wide consultation, is how to devise a national policy regarding indirect exposure assessments for dioxin. This could have major implications for numerous EPA programs and could require a reevaluation of risks at many other sources of air emissions.

The risk assessment was prepared by the Region 5 office for the WTI facility. It focused primarily on risks associated with inhalation of the emissions, an approach which the Agency has historically used in evaluating air emissions. Region 5 concluded that indirect exposure routes (e.g., consumption of food raised in the area) were not likely to present significant additional risk based on a draft dioxin risk assessment for another combustion unit.

The Office of Research and Development (ORD) has a draft document, "Estimating Exposures to Dioxin-Like Compounds," which describes a methodology and provides an example of how indirect exposures, such as exposures from soil contamination and subsequent food chain contamination resulting from air emissions, can be evaluated.

Greenpeace used a specific example from this document to attempt to show that risks from consuming products from cattle raised near the incinerator can be 10,000 times greater than the risks from inhalation and are, therefore, unacceptable. The use of the example from the ORD report in the WTI situation is not appropriate, since the risks from air emission sources are very highly dependent on site-specific factors. However, a preliminary

assessment done by ORD does show that risks from beef and milk consumption can be 1,000 times higher than risks from inhalation near the WTI facility. It is important to note that, even using the worst-case indirect exposure analysis, the risks to the public during the trial burn period would be within what has been considered acceptable. The Greenpeace submittal also contains other analyses that show very high risks. However, both the Office of Solid Waste and Emergency Response (OSWER) and ORD agree that these analyses use extreme, unrealistic assumptions.

There are very significant implications associated with adopting risk assessment procedures based on indirect exposure routes for air emission sources. These analyses have a much greater degree of uncertainty because they involve a large number of exposure-related assumptions. If conservative assumptions are used for all exposure related parameters, risk estimates can be unrealistically high. The analyses of the WTI situation show that many air emission sources could be affected if EPA were to adopt the indirect exposure analysis procedures in assessing exposure risks.

ACTIVITIES UNDERWAY: My staff met with ORD on Friday, January 22 to discuss the analytical steps that must be undertaken in preparation for the upcoming District Court hearing. In addition, my staff is reviewing all of the risk assessment efforts related to WTI and the ORD report on dioxin exposures to ensure that any differences can be explained. Staff are also working with ORD to collect relevant data on dioxin emissions from different sources and on risk assessments which have been done on those sources. Finally, the Agency must address the court's question concerning why we need the trial burn data in order to prepare a more comprehensive risk assessment.

For the immediate future, we have scheduled a technical meeting on Monday, the 25th, which will include personnel from Region 5 to review all of the risk assessment issues. We will then hold a management level meeting on Tuesday, the 26th, to develop recommendations on how we should proceed.

We are also developing an in-depth briefing for you on the WTI issues. We will work with your staff to schedule the meeting. Please let me know if you have any questions or need any other information.

cc: Linda Fisher
Dick Morgenstern
Mike Vandenbergh
Loretta Ucelli
Diane Regas

TABLE 3: Summary of British Columbia Compost Quality Classifications.

COMPOST TYPE	SS	A	B	C	D	E
METAL CONCENTRATION CODE	1	1	1 OR 2	1, 2 OR 3	1, 2 OR 3	4
FEEDSTOCK	SS	MSW	MSW	MSW	YW SS MSW	MSW
MATURITY	Mature, Semi-mature	Mature	Mature, Semi-mature	Mature, Semi-mature	Fresh	N/A
FOREIGN MATTER	≤ 1%	≤ 1%	≤ 2%	≤ 10%	≤ 10%	N/A
WATER CONTENT	≤ 50%	≤ 50%	≤ 50%	≤ 50%	N/A	N/A

MSW: Municipal Solid Waste; SS: Source Separated Waste; YW: Yard Waste.

TABLE 4: Summary of British Columbia Compost Use Restrictions by Classification.

CLASSIFICATION	RESTRICTIONS
SS and A	Unrestricted Distribution
B	Non-Food Applications: parks, forested lands, forest and horticultural nursery industry
C	Non-Food Applications: parks, forested lands, forest and horticultural nursery industry
D	Land Reclamation Projects with Limited Potential for Public Contact
E	Disposed of in Landfill

PART 503 NUMERICAL CRITERIA FOR LAND APPLICATION

ELEMENT	CUMULATIVE LOAD (kg/ha)	APL (Clean Sludge) (mg/kg)	APLR (kg/ha/yr)
Arsenic	41	41	2.0
Cadmium	39	39	1.9
Chromium	3,000	1,200	150
Copper	1,500	1,500	75
Lead	300	300	15
Mercury	17	17	0.85
Molybdenum	18	18	0.90
Nickel	420	420	21
Selenium	100	36	5.0
Zinc	2,800	2,800	140

APL - Annual Pollutant Load
APLR - Annual Pollutant Loading Rate

Office of Waste Management

Attn. Bill Rheinlander
1356 Hansford Street
Charleston, W.V. 25301

Sewage Sludge regulations

I find the following general problems with theproposed regulations;

1. No use of identified sound scientific data used for classifing A,B,C facilities no status of sludge management in the state; total amount dry or wet ton, methods of disposal(% landfilled, incinerated, land applied, lime stablized, or composted) amount of suitable land available.

2. 4.2.3d Agreement, Vertical integration allows for abuses in the system, resulting in under reporting, subsitution of materials

3. No elimination of sludge from landfills. Yard waste will be banned. Sludge is more noxious. In a sealed environment of al landfill anarobic conditions drive the pH down, this creates a hazardous leachate and generates abundant methane. We should continue weaning sludge from landfills.

4. Overreliance on C.F.R. 503.12, no explainations, interpretations or decisions--- nothing to comment on.

5. Centralization of authority within D.E.P No local involvement or recourse. Authority, respondsibility, and the beare of consequences are all separate.

6. No evidence of integration with other composting regulations or guidelines.

thank you for your consideration,

Dr. John Hannon Martin,

Attached is an outline for a sludge management program from the Waste reduction task committee of the S.W.M.B. This was submitted for discussion purposes to D.E.P. Max Robertson, November, 1992.

WEST VIRGINIA SLUDGE APPLICATION PROGRAM

GOAL; RETURNING USEFUL PRODUCTS TO THE SOIL
placing authority and resources where the responsibility lies, locally.

- MORITORIUM ON LAND APPLICATION OF SLUDGE (TWO YEARS) Present demonstration programs can continue meeting in state needs and upgraded. Definition of program occurs during this time. Training and certification of haulers and appliers occurs.

- REFERENDUM ON ACCEPTING LAND APPLICATION IN A HOST COUNTY ('95) this should encourage local informed debate.

- ESTABLISHMENT OF LOCAL ADMINISTRATIVE BODY
  a good example; the local Solid Waste Authorities

- ESTABLISHMENT OF LOCAL WATCHDOG GROUP
  concerned people are responsible for the issues (within parameters they can close operation)

- DETERMINATION OF AREAS SUITABLE FOR LAND APPLICATION
  SWA, SCS and the Extension Service provided at a fee

- DETERMINATION OF ACCEPTABLE LOADING RATE LIMITS
  Land Grant University provided at a fee

- AGREEMENTS WITH LANDHOLDERS
  preliminary acceptance followed by firm contract with local administrative body

- REQUEST OF QUALIFICATIONS FROM HAULERS AND APPLIERS

- SLUDGE APPLICATION PLAN approved by state Board

- LOCAL BROKERING OF SERVICE FOR CONTRACT

  - REQUEST FOR BID FOR HAULERS AND APPLIERS

    - INDEPENDENT OF ASSESSMENT

    - PURCHASE OF BOND

  - PURCHASE OF LIABILITY INSURANCE

  - IMPLEMENTATION REFERENDUM
    [illegible]

Sycamore Landfill, Inc.
4301 Sycamore Ridge Road
Hurricane, West Virginia 25526

Telephone
304-562-2611

Fax
304-562-2358

June 21, 1993

West Virginia Division of
Environmental Protection
Office of Waste Management
Attn: Bill Rhinelander
1356 Hansford Street
Charleston, WV 25301

Dear Bill:

Enclosed please find our comments and suggested changes to the proposed Sewage Sludge Management Regulations Title 47, Series 38D. The following sections from the proposed regulations are of a concern to us; suggested changes and additions have been supplied:

3.2.1.f: It is our feeling that the land application of sewage sludge should be allowed up to the boundary of a facilities' property, so long as all surface water is directed back to the facility. These boundary areas are in need of sludge application, and to restrict them from such benefits would seem unnecessary if proper run-off procedures are followed.

3.2.1.i: Pertaining to the application of sewage sludge within an active landfill disposal cell, it is our belief that this requirement is too strict, since the final slopes of many landfills, as approved by the WVDEP, are steeper than 15%. We recommend that for sludge applications within active landfills some leeway be given based on site specific conditions and design.

3.3.1.d.C: We proposed that for any solid waste landfill facility which is in compliance with the solid waste regulations, and has an existing liner system either of clay or synthetic material, that this extra liner construction not be

required. This requirement would mean that a landfill operator would need to construct a liner system on top of their already existing liner, which would be excessively costly.

3.3.1.d.D: It is our feeling that if the processing of sewage sludge is done over a lined area, that the construction of a concrete pad would be unnecessary, so long as all leachate generated from the sludge is handled in accordance with the solid waste regulations as they pertain to leachate. If the installation of this concrete was intended to ensure ease of access and dumping, it would seem as though there are more cost effective ways to maintain access without the finality of 6" of poured concrete.

3.6.1: The 25% requirement would seem not to apply to the land application, or the processing of sewage sludge, because the sludge is never being comingled with the daily waste that is being disposed of. If the intent of this requirement was to limit total amounts of sludge to be handled at a landfill, then this item is already covered, as is seen in the inclusion of sludge in a facilities' monthly tonnage limitation. This requirement is also difficult to comply with due to the fact that the tonnage of waste and the tonnage of sludge coming into a facility on a daily basis vary, and cannot be estimated with any degree of certainty.

4.1.3: We feel that any solid waste landfill facility that is seeking a sewage sludge processing or land application permit, should be able to do so throught a minor permit modification, not a major modification

4.2.1.g: Regarding the requirement to provide data as to the levels of chemical constituents in the sludge, it does not seem practical to have the facility operator disclose this information, when it is the responsibility of the generators to certify to the processors that excessive levels of the listed constituents are not in their waste streams. Therefore we suggest that, as in the landfill minor permit modification process, the generators be responsible for certification of the quality of their waste.

4.2.2.b: Regarding disclosure statements: It is our feeling that if a facility is seeking a major modification of an existing solid waste landfill permit which the WVDEP has issued, and for which disclosure statements have already been submitted and approved, in an effort to save time in the

permitting process that the submission of the same disclosure statement not be required. This waiver could only apply if the principal owners and operators holding the existing permit were the same as for the proposed sewage sludge/land application permit being sought.

4.2.3.b: When is this information pertaining to nitrogen content to be determined, when the sludge is coming into the facility?, when it is land applied?, after it has been composted?, or when it leaves the facility for use at another location? How often will this need to be determined?

4.2.3.1: We feel that our customers, as sludge generators, have the right to maintain the privacy as to who their customers are. Many of the generators of sludge will not be willing to release such proprietary information about who their industrial users are. General information should be supplied by generators, but due to fierce competition, and the fact that any information submitted to the WVDEP becomes public record, this requirement may cause generators to use out of state facilities where such information is not requested or required.

5.1.1.b: What sampling parameters will be used and what detection limits will be set? Will this mirror the Federal 503 guidelines?

5.3.2: Operating solid waste landfill facilities should not be limited as to the amount of sludge that can be accepted or land applied, if the facility demonstrates the ability to properly handle, apply, and or process the amounts of sludge brought to the facility. In the instance of an operating landfill, many areas which have received the land application of sludge will probably be re-opened to achieve final and desired grades, while other areas that need to be matured to elevations are being landfilled. This means that an operating landfill has the ability to properly and effectively consume more sewer sludge than facilities such as farms or on strip mine reclamations, where the loading rate will be exceeded if multiple applications of sludge are made. Landfills are the exception to the rule because once the sludge is applied, allowed to sustain revegetation, and dries considerably, it in effect becomes a perfect cover material, which if removed from one area of the landfill to allow further placement of waste can be reutilized as intermediate type cover elsewhere. Then the area from which the dried sludge was removed can accept another application of the sludge to once again sustain revegetation.

6.3.3: Insert after the word "Fund", and before the word "except" the following:

provided that the fees established by 6.3.1 and 6.3.2 shall not apply to sewage sludge or material derived from sewage sludge which is disposed of in a solid waste landfill facility or land applied in or on a disposal cell in a solid waste landfill facility which has been issued a permit for the operation of a solid waste landfill facility pursuant to the provisions of chapter 20, Article 5F, Section 5.

These changes distinguish the difference between landfills and other disposal and processing facilities. Landfills already pay assessment fees and taxes for such things as environmental remediation, water resources control, and enforcement activities.

Appendix A: The frequency of monitoring proposed is excessive; this is due mainly to the extremely high cost of running analytical tests. Unless the water quality management board will pay for the analytical work, we propose the following:

Less than 290 tons per year- Analyze once every 12 months
290 to 1,500 tons per year- Analyze once every 6 months
1,500-15,000 tons per year- Analyze once per quarter (4 times per year)
15,000 or more tons per year- Analyze once per month (12 times per year)

These are all of the proposed changes that we have currently. We sincerely hope that these are taken into consideration when the final regulations are made. If you have any questions, or would like further clarification of any of these issues, please call.

Sincerely,
Sycamore Landfill, Inc.

David Newman
Operations Manager

LWV

LEAGUE OF WOMEN VOTERS OF WEST VIRGINIA

1127 MONTROSE DRIVE • SOUTH CHARLESTON, WV 25303 • TELEPHONE 304-744-8787

June 21, 1993

To: Division of Environmental Protection

Re: Proposed Sludge Regulations

The League of Women Voters of West Virginia wishes to make a few suggestions pertaining to the proposed sludge regulations.

Approval of sites for disposal should be contingent on not adversely affecting sites where endangered or threatened species are located. The federal standards refer to this requirement.

Where a Wellhead Protection Program is in place, an applicant for disposing sewage sludge should be required to confer and get approval from the committee in charge of the Wellhead Protection Program if the sludge is to be disposed of in the Wellhead area.

Are compost toilets covered in the definitions section? These could be either private or public. The disposal of the compost from these toilets should be regulated.

KL/HG

Karen Lukens, President

1127 Montrose Drive
South Charleston, WV 25303
744-8787

Helen Gibbins, Natural Resources
6128 Gideon Rd.
Huntington, WV 25705
736-3287

RECEIVED
JUN 28 1993
...n of Environmental Prote...
... of Waste ...

Brooke County Sanitary Landfill

RD# 2, Box 410
Colliers, WV 26035
Tele: (304) 748-0014
Fax: (304) 748-0005

"If It's Service, it's Us"

June 17, 1993

Mr. William Rheinlander
Information Representative
Department of Commerce, Labor and
Environmental Resources
Division of Environmental Protection
Office of Waste Management
1356 Hansford Street
Charleston, WV 25301

Dear Mr. Rheinlander:

The proposed sludge regulations offer the State of West Virginia the opportunity to develop a comprehensive program for the beneficial reuse of a waste. However certain sections of the proposed regulations are counter productive and will have an adverse impact on the beneficial reuse of municipal sludge and cost of waste water treatment.

The following sections need eliminated or changed:

a) 3.2.1.h and 4.2.3.n. restricting use to soils with a PH greater than 6.2. Normal Brooke County soil ranges from PH 5.2 to PH 7.2 and compost use should be permitted on soils with a PH of 5.0 or greater.

Compost and sludge contain considerable alkalinity which is beneficial to acidic soils. The concept that oxidation of sulfides and acid rain can over a long period of time neutralize the add alkalinity and return the soil to the original low PH has been proposed. The concern expressed is that the neutralization of the alkalinity causes the compost residual to ultimately be exposed to the original low soil PH condition with the potential for acid leachating of the heavy metals present in the compost or sludge.

This leachating of heavy metals from compost residuals is not possible at normal acid soil PH's of 5 or greater because the metals are oxidized and not soluble in measurable levels. The TCLP procedure uses a strong acid solution to extract soluble metal ions from a waste. Any material that passes the TCLP procedure is not going to leach metals at soil PH levels of 5 or greater.

This section of the regulation would prevent using compost on acid mine spoils that would greatly benefit from both the organic matter and alkalinity present in the compost or sludge.

b) 3.2.1.i. prohibits the use of sludge on slopes greater than 15%. Should change to read: Prohibit placement of sludge on slopes which would allow the sludge to flow. For example 40% solid sludge will be stable on a much steeper slope than 20% solid sludge.

c) 3.2.1.k. prohibits the use of sludge on less than 20" of soil over bedrock or an impervious pan. The environmental reason for this restriction is not apparent. These are generally the poorer quality soils that would most benefit from sludge or compost.

d) 3.2.1.l. prohibits the use of sludge on soil with a permeability of less than 0.6 inches/hour ($4.23X10^{-4}$ cm/sec) and greater than 6 inches/hour ($4.23X10^{-3}$ cm/sec). What possible logic could require a soil permeability restriction? A very high permeability that could allow nitrates to enter the ground water? This remote concern is addressed in the agronomic rate calculations. This section should be eliminated.

e) 3.3.1.d. Liner system is required in any area containing sludge or products in direct contact with the ground. Buildings and other work areas under roof need to be excluded from the liner requirements.

f) 3.3.1.d.D. Final surface shall consist of at least a six (6) inch slab of reinforced concrete with a leachate collection network.

Section 3.3.1.d.D. is an example of how inappropriate a specific method of accomplishing a goal is in regulations. The unstated purpose of this section is to provide a durable all weather work surface that protects the liner system and provides a method for leachate collection. The regulation should be changed to: "The final surface shall consist of an all weather durable working surface that fully protects the liner system (3.3.1.d.B.) and provides a means of collecting the leachate."

The claim by the West Virginia Department of Environmental Protection that there is no economic impact from the proposed regulation is not correct. There are considerable taxes and fees imposed by the regulations that will be paid by the citizens of West Virginia. Also without the above proposed changes, the cost of disposing sludge through land application and composting will be unnecessarily increased with no associated environmental benefits.

Since clean water is the goal of everyone and all water treatment processes generate sludge, any unnecessary cost imposed on the disposal of sludge will be an added financial burden on cleaning the waters of our state and country. These costs are ultimately paid by the citizens.

Thank you for this opportunity to comment on the proposed sludge regulations.

Sincerely,

David C. Brown, P. E.
Engineer Manager

DCB/jk

Tyler County Solid Waste Authority
P. O. Box 126
Middlebourne, WV 26149
June 22, 1993

Reference: Proposed Rule, Title 47, Series 38D,
"Sewage Sludge Management Regulations"

Office of Waste Management, DEP
Attn: Bill Rheinlander
1356 Hansford Street
Charleston, WV 25301

Dear Mr. Rheinlander:

General Comments -

Until last year the large volumes of sludge from New York and New Jersey were dumped in the ocean, now they have to find a new place for it. Unless it can be proved that the environment in New York and New Jersey is more fragile than in West Virginia, the West Virginia regulations must be equivalent to those of these states. Potentially huge quantities of sludge could be brought to West Virginia. These states and others that have responsibly handled large quantities of sludge, have rules built from experience. If West Virginia takes on these problems, the same rules are needed now.

There are no consequences for non-compliance; these are a must.

A sewage sludge processing facility should annually (in the summer time, on a Saturday) have a day when the public can inspect the facilities, ask questions, and receive answers. The owners, managers, and appropriate DEP representatives should be there.

The groundwater monitoring wells must be working and checked regularly.

The treated leachate must be monitored to prove statistically that it meets required standards.

The sludge should be brought to a ph of 6.2 before it is applied to the soil.

Specific Reference Comments -

3.1. Incorporates Federal regulations 40 CFR part 503 as in effect on the effective date of these rules. The 503 rules aren't that good. Perhaps a better way would be to use the best of them as part of these rules.

One would hope 503 rules would only get better; if these rules or any other rules are incorporated, they should apply as amended.

3.2.1.a. Delete , "unless the applicant can demonstrate to the Director that the land application will not cause runoff into streams or wetlands."

3.2.1.b. Amend to, "Land within 300 feet ..."

3.2.1.c. Amend to, "Land within 300 feet ..."

3.2.1.d. Amend to, "Land within 300 feet of an occupied dwelling."

3.2.1.f. Amend to, "Land within 200 feet of an adjacent owner's property line without written consent."

3.2.1.h. Amend to, "Land that has been tested and determined to have a ph of less than 6.5."

3.2.1.j. Amend to, "Land that has a seasonal high groundwater less than 5 feet from the surface."

4.2.1.g. Heavy metals, pathogens, toxins, vectors: These rules should define what tests are made, how often they are made, and what would keep it from being accepted at the facility.

4.2.2.e.J. There must be testing and reporting to show this is working. It must meet a standard.

5.1.1.f. Amend to, "Requirements to retain records for the facility for a minimum of thirty years."

Thank you.

Sincerely,

James D. Van Camp

James D. Van Camp
Vice-Chairman Tyler Co. SWA

"Out-of-State Garbage"

Why is it that "good," "just," "right," and "logic" seems to always give way to "greed," "injustice," "wrong," and "stupidity."? The pure indignity of the matter begs for "reasonable" resolution. "I'm going to take my garbage and dump it in your yard." "NO"! you emphatically say, "You can't do that, you are violating my property, my birthright, my ecology, and my natural resources. You must dispose of your own garbage in your own way and you cannot and will not violate my land."

Certainly, a reasonable dumper would agree with the dumpee and, in fact, personal property law would most likely support the dumpee's position and enforce the requirement that the dumper dump his trash elsewhere. Makes sense, seems reasonable--and the outcome described is supported by logic, justice, and good common sense.

Why is it then that when we elevate this illustration to the State level it becomes okay for one state to dump its garbage in another state. How can a citizen or a government official of West Virginia support the hills and valleys of this incredibly beautiful landscape being defiled by the trash and sludge of your sister states? Shame on you!

Of equal concern is the mentality of those in other states who think it's okay to dump one state's garbage in another state. Are the Pocono's of Pennsylvania more pristine than the hills of West Virginia? Let's haul garbage to the Pocono's, the Adirondack's, the Alleghenies, the Catskills . . . Let's defile Western Maryland, Southern New Jersey, the Berkshires of Massachusetts, the White's of New Hampshire and the Green's of Vermont . . . NO!, you say, . "you can't do that because you would violate the natural beauty, the ecological balance, and innumerable laws".

Ah, but I can in West Virginia.

Why is that? Interestingly, it is not the "Government" of any locality or state that is sending garbage to West Virginia. No, it is free enterprise that has turned West Virginia into the toilet bowl of the East. The

greedy Free Enterprise Set and stupid West Virginia politicians create a marriage made in heaven for the greedy Free Enterprise Set. The Free Enterprise Set is greedy because all they are about is making money. They charge municipalities in the congested Northeast corridor exorbitant fees to dispose of garbage and other waste (some of it hazardous). There is more waste created than can be disposed of at local facilities. What do they do? Well, they can build new facilities locally (at great expense, with stringent ecological requirements and high "tipping" fees) or they can haul the garbage and dump it elsewhere, someplace, say, where the "tipping" fees are peanuts, the ecological consequences are of no concern, and where I get little or no resistance from GOVERNMENT. Bingo! I'll dump my garbage in West Virginia. They (the State Government of West Virginia) welcome me, charge me very little, and have NO MECHANISM of SURVEILLANCE or AUDIT to monitor my compliance with any guidelines that might be in place. Can you imagine how the mind of the Free Enterprise Set must be boggled at the thought? Imagine, paying Wetzel County West Virginia 50 cents per ton (Yes, 50 cents per ton) to fill its landfill with garbage and other waste from other states. Just how stupid can the Government of West Virginia be to allow such an indignity?

If you're going to be the toilet for the Northeast, at least have the dignity and business acumen to be an EXPENSIVE toilet. Participate in the FREE ENTERPRISE SYSTEM. MAKE MONEY! GET YOUR SHARE! BE SMART! PLAY THE GAME! MATCH GREED WITH GREED!

Does anyone ever stop to think how the Free Enterprise Set can afford to BUY TRUCKS, HIRE DRIVERS, PAY SLICK LAWYERS, and DONATE significant sums of money to local charitable causes all in the name of dumping garbage in West Virginia instead of New York? Hello..o..o..o! There is a lot of money in garbage, and the Free Enterprise Set is growing RICH at the expense of the PEOPLE of West Virginia. WAKE UP West Virginians! Demand your share of the pie. Either get your share in an economic sense or PROTECT YOUR BIRTHRIGHT, YOUR ECOLOGY AND YOUR NATURAL BEAUTY. Do not allow yourselves to be had by those who care nothing about you or your State. Let every citizen be heard and let the message be loud and clear, "We will not be fooled by the Free Enterprise Set." Either our State gets RICH from your stinking garbage or you haul it BACK FROM WHENCE IT CAME.

Right, Justice, Common Sense, and Logic are on your side. Stupid politicians, slime lawyers, and greedy entrepreneurs are your foe. Good will always win out over evil.

Fight the fight now, before it's too late. Man can destroy in a decade what Mother Nature took millenniums to create. Do not allow the RAPE of West Virginia by the Free Enterprise Set go unchallenged. She's a beautiful state, West Virginia; a good State, and she deserves better than she's getting.

Remember the song, "The West Virginia Hills":

1. *We all have treasures*
   We call our own
   Mine are these hills
   I call my home
   Just let me live
   Till eternity
   in these hills
   God walks with me

2. *Yes, He walks these hills*
   These beautiful hills
   Where my soul is always free
   What a comfort to know
   You're never alone
   Cause God walks these hills
   With Me

Good luck and Godspeed,

Signed, Bob & Helen Burgess
RR 2 Box 21
New Martinsville, WV
26155

"A West Virginian At Heart"

CITY OF WHEELING

WHEELING, WEST VIRGINIA 26003

June 23, 1993

Division of Environmental Protection
Office of Waste Management
1356 Hansford Street
Charleston, WV 25301
Attn: Bill Rheinlander

Hand Delivered

RE: Comments on Sewage Sludge Management Regulations

Dear Mr. Rheinlander:

The proposed Sewage Sludge Management Regulations (Title 47, Series 38D) which are the subject of the public hearing, will have a dramatic impact on how Publicly Owned Treatment Works (POTW) operate in West Virginia. The City of Wheeling operates a wastewater treatment plant that produces approximately 8,000 tons of sewage sludge annually. Our current disposal method is to haul this waste to a licensed landfill and bury it. We believe this practice is not the best environmental solution for the disposition of this waste product in West Virginia, nor will it be the most economical for cities in the future as landfill tipping fees increase.

The City of Wheeling requested modifications to our landfill and NPDES permits which would allow us to develop a more economical and environmentally sound solution to our sludge disposal process. These permit modification requests were submitted prior to the legislative amendments to § 20-5F-2b of the West Virginia Code and the solutions were being designed to be consistent with, and meet all the requirements of Federal Regulations 40 CFR Part 503, which regulate sewage sludge.

Federal Regulation 40 CFR Part 503 recognizes and regulates different processing methods for sewage sludge and the disposition of the resultant product to insure environmentally sound and safe solutions to the problem. The regulations proposed by the Department of Environmental Protection appear to go beyond 40 CFR 503 in permit requirements for sewage sludge processing facilities and land application requirements. These extensions beyond the requirements of 503 will create extreme hardships on West Virginia communities attempting to resolve sludge handling problems consistent with the Federal EPA 503 regulations, and may eventually cause all sludge to be dumped into landfills.

The federal regulations recognize that there are better and more productive solutions than landfilling sewage sludge. Sewage sludge can be processed in a number of ways under the 503 regulations to end up with a very safe product for beneficial re-use. Once a processed product meets very rigid federal standards, it becomes safe for re-use in almost any environment for land application.

The federal regulations establishes two levels of sewage quality, Class A and Class B. Under the Part 503 regulation, fewer restrictions are imposed on the use of higher quality sludge (Class A.) In regard to land application, the federal regulations state *"A number of general requirements and management practices apply to sewage sludge that are land applied with the exception of 'Exceptional Quality' sewage sludge ..."* The 503 regulations states under Distributed and Marketed Products "... sewage sludge or material derived from sewage sludge that is considered suitable for distribution and marketing (D&M) for uses on lawns and home gardens, either in bulk or container form, must meet the Class A pathogen reduction requirements, a vector attraction reduction processing option, and the Pollutant Concentration limits (with the exception that sewage sludge which meets the pollutant Ceiling Concentrations, but no the Pollutant Concentration limits, can be sold in bags or other containers for use at sludge application rates prescribed on a label that are based on not exceeding the Annual Pollutant Loading Rates.) The Class A pathogen reduction requirements must be met at the time the bulk or containerized products are "sold or given away."

If sewage sludges are of "Exceptional Quality" - meet the Pollutant Concentration limits, Class A pathogen reduction requirements and a vector attraction reduction processing option - they are <u>usually exempt</u> to the general requirements and management practices applicable to land application practices.

The proposed West Virginia regulations do not seem to distinguish the categories of sludge between the Class A (Clean Sludge or Exceptional Quality) and Class B categories as do the Part 503 regulations. Nor do the West Virginia regulations provide incentives for West Virginia POTW's to produce Class A end products.

The fees associated with the regulation process again become a factor in the processing of sewage sludge to the Class A or 'Exceptional Quality' level, and should provide incentives for POTW's to produce a Class A product which is both beneficial to the producer and to the state. Anything less than a Class A or regulated Class B sewage sludge can be detrimental to the future of West Virginia environmentally.

The City of Wheeling hopes the Department of Environmental Protection will seriously consider the comments made at the public hearing and submitted in writing regarding the proposed regulations and make good constructive changes that will allow the City of Wheeling and other West Virginia POTW's to economically handle sludge disposal problems consistent with the environmentally sound solutions provided by 40 CFR Part 503.

I have attached to this letter a list of specific concerns with various sections of the proposed regulations, and would ask that these comments also be considered as part of the public record regarding the Title 47, Series 38D regulations.

Thank you for the opportunity to speak and submit comments regarding this very important issue for West Virginia.

Sincerely,

Jimmy E. Cumes
City Manager

Attachment

cc: Mayor Jack Lipphardt

City of Wheeling

Comments on proposed Series 38D Sewage Sludge Regulations.

2.13/2.14 - "Composting" should not be used as terminology. The terminology should reflect the new Federal 503 regulations. "P.F.R.P." or "E.Q.S." or "Class A" technologies are all terms that refer to a higher level of treatment.
This can include composting, Alkaline Pasteurization, or possibly pelletization. There are many other alternative technologies to composting, many are safer.
Does the definition of composting include N-Viro or do they recognize composting as an entirely different operation/process (which it is).
Similarly, "Composting Facility" means what? Can our operation be set up at another location in the same county and be considered part of the treatment plant or does it actually need to be connected. As P.F.R.P. treatment it could be argued that this was part of the wastewater treatment process.

2.25 - If a materials recovery facility does not include a composting facility, where would an N-Viro A.A.S.S.A.D. facility fall. Would it be considered a mixed waste processing facility?

2.33 - Sludge should be considered a recycled product after it has been subjected to an approved "Class A" treatment. At least with further restrictions (such as 50% solids content) this status should be attainable.

2.35 - How will incinerator ash be classified?

2.36 - This paragraph should include some of those technologies. "Alkaline Pasteurization" should be included. At this time there are only 8 In-Vessel composting facilities in operation in the country. There are over 30 Lime Pasteurization facilities.

2.44 - It does not appear that this article would allow lime sterilization to be performed, because when Lime Sterilization is wet it does give off offensive odors as does composted material. Alkaline Pasteurized material does not.

3.1 - Federal regulations set out a guideline for "Clean Sludge" or "E.Q.S." (exceptional quality sludge) with the intent to promote beneficial re-use. If the BIO-SOLIDS or products incorporating bio-solids are of a low enough contaminant level they are deemed safe enough for unrestricted sales. This will allow for the successful marketing of the final product. If the State of West Virginia would like to place more stringent requirements on these products, They might consider requiring a minimum of 50% dryness or a more restrictive fecal coliform count.

(3.1 con't) pH could also be a factor in this requirement. The N-Viro A.A.S.S.A.D. process is mentioned specifically in the E.P.A. 503 regulations as a E.Q.S. technology, where does West Virginia acknowledge this? (see E.P.A. 503 regulations attached).

3.2 thru 3.2.3. - These restrictions will eliminate the possibility of ever marketing sludge based products (even if generated locally) to the general public in the State of West Virginia. This is in direct opposition to the intent of the establishment of a "Clean Sludge" guideline. As this regulation is written, all technologies that seek to utilize the benefits of properly treated biosolids will fall under this restriction, regardless of the means by which the final product is produced or the final form that the product will take. Specifically:

3.2.1. This says "sludge will not be applied to land...". N-Viro Soil, or Alkaline Pasteurized Biosolids is a product and is not sludge.

3.2.1.e. - This will eliminate the possibility of the use of Alkaline Pasteurized Biosolids in Department of Transportation projects such as re-seeding after construction and for erosion control. This is one of the most exciting opportunities in the recycling of properly treated material.

3.2.1.g. - This restriction does not include any acceptable distance. If the run-off from the material is clean then this restriction would be unnecessary. There should at least be a table of acceptable distances and/or acceptable levels of contaminants in the runoff.

3.2.1.h. - This would eliminate the use of ALKALINE treated Biosolids on disturbed lands as a way of raising the pH. Such as around strip mines , construction sites and on reclamation projects. This seems to be intended for application of sludge that is acidic. It has been well documented that ALKALINE PASTEURIZED biosolids are an effective amendment product for raising the pH of lands like these. Even in one time applications.

3.2.1.i. - This would eliminate the use of these products for erosion control on slopes, a very appropriate use for some biosolids based products. This also has been documented.

3.2.1.k. - Again this would limit the use around strip mine areas (the areas in most need of soil amendment). N-Viro Soil, if blended with clay results in an acceptable topsoil material. It has a stable pH and exhibits the characteristics of soil.
Heavy Metals are bound in an insoluble metal hydroxide salt coating, much the same way as heavy metals present in any soil material. The contaminants are permanently bound (unless, as with native soils, they are heavily stressed with acid). N-Viro Soil has been used as landfill cover, structural/construction fill material, a soil amendment, ag-lime and fertilizer with no adverse affects to the environment.
Would this material (blended or unblended) qualify as soil that could be utilized to achieve this 20" requirement?
If so, then this restriction should not apply to land application of N-Viro Soil. (The U.S. E.P.A. has recognized Chemical Fixation as "the best demonstrated available technology to immobilize heavy metals".

(3.2.1.k. cont'd) Composting does nothing to immobilize heavy metals, in fact if the resulting compost is on the acidic side, heavy metals could continue to leach from this material indefinitely. Clearly the A.A.S.S.A.D. process deserves recognition above that of compost for land application for this reason.

3.2.1.1 - This seems overly restrictive and should have other parameters, such as depth of topsoil, clay or bedrock. In addition just as above, N-Viro Soil should be blended with this material to make a better product.

3.2.3. - These Dry Ton limits should not be so low for all circumstances. This may work for ag. application, but in strip mine reclamation applications and in some landfill cover or maintenance applications this could prevent the goal from being achieved. This should have additional parameters allowing certain quality material greater leeway.

3.3.1.a. - This makes no provision for clean runoff and does not define what level of contaminants are acceptable/unacceptable. In addition if the processing site is located at the landfill (which is already lined, with a leachate collection system, then this is redundant.

3.3.1.d through 3.3.1.d.D. - These restrictions could unnecessarily prevent the recycling of Biosolids in the State of West Virginia due to cost. Again "Clean Sludge" or E.Q.S. Biosolids should be treated differently than extremely contaminated "Class B" materials. These restrictions may be written for in-vessel composting. They are extremely restrictive and overly protective. The result will be increased costs that will cause clean re-usable Biosolids to be dumped in a landfill for disposal. Again, there should be exceptions for material that has been treated to a safer level or for material that may be "safe" before treatment.

3.3.1.d.b. - If the installation were on solid rock, would a clay liner still be required? Solid rock is certainly more impenetrable.

3.3.1.d.c. - What exactly defines a "Leachate detection zone?"

3.3.1.d.D. - A final surface should also have the option of being 8" of Dense Graded Aggregate (compacted) and 4" of Asphalt as an alternate to the 6" of concrete.

3.4.1. - The question again comes up - N-Viro Soil (or A.A.S.S.A.D. pasteurized Biosolids) is not sludge, and water that comes in contact with it should not have to be handled in any special manner. This has been repeatedly tested-and proven. This product can be stored in the open indefinitely.

3.6. thru 3.6.1. - This regulation does not take into account final product that may be used as landfill cover. Some Class A processes (like the N-Viro Process) result in a final product that is no more sewage sludge than gasoline is crude oil or wastewater is clean effluent.

(3.6 thru 3.6.1 cont'd) If this material were to be judged based on 25% of the total waste disposed of at the landfill, then once again an opportunity to recycle biosolids will have been lost. There should be restrictions on the suitability of Biosolids derived products as landfill cover (such as 50% dryness, compaction or permeability, pH, and vector attraction) this restriction is far to broad to be sensible.

4.1.3. This seems to say that the operation could be placed at the sewage treatment plant. Is this true?

4.1.5. - This paragraph should allow for variances of permits-by-rule at the discretion of the State.

4.2.1.g. - This should read (.....or final product)

4.2.1.h. - This is to restrictive for the sale of E.Q.S. material. This regulation will severely inhibit a marketing program for Class A or E.Q.S. products.

4.2.1.j. - This should read (....unless granted a variance by the State)

4.2.2. - Again, can the mixing operation for an A.A.S.S.A.D. facility be put at the wastewater treatment plant?

4.2.2.c.E and 4.2.2.c.F - These paragraphs should refer to "E.Q.S." or "P.F.R.P." or "Class A". There are other appropriate technologies and the word compost is not only a competitive advantage for compost system vendors, it is misleading.

4.2.2.c.H. - The N-Viro Process in Wheeling will use Fly Ash. This is not a "bulking agent". It is required for pH maintenance and for further drying. The definition of a bulking Agent should be clarified.

4.2.2.e.F thru 4.2.2.e.K - These regulations are written specifically for in-vessel composting systems. Not only do they fail to address other technologies they imply a preference from the State's perspective and are therefore unfair. They should be removed or amended appropriately.

4.2.3. - It is our understanding that under the Federal E.P.A.'s 503 regs. that P.F.R.P. processes such as the N-Viro A.A.S.S.A.D. do not require some of the regulations stated. In fact, N-Viro Soil is considered so safe that it is the only sludge based product available in the world that can offer Product Liability Insurance (through C.N.A. a national Underwriter). This at least demonstrates the level of safety that these products can achieve. (Please see attached 503 regulations, see note on page 8, 5th paragraph)

4.2.3.a. - If marketing a "Clean, E.Q.S., Class A" or other such treated final product this amount of information is unrealistic and will impede marketing efforts drastically.

4.2.3.c. - This is also overly restrictive. If the material qualifies as a clean material it is operationally impossible to provide this level of detail for every single end-use. These uses could be yards, maintenance on bare spots, construction sites etc. At the higher level of treatment Biosolids derived fertilizers, ag-limes, and soil amendment products are generally much "cleaner" than commercial fertilizers. Commercial products do not have this restriction and if the Biosolids derived products cannot compete on a cost and convenience basis, they will not be purchased and the recycling program will fail.

4.2.3.f and 4.2.3.g - Sometimes the owner of the property does not know this information. This is impractical!

4.2.3.i. - N-Viro Soil is not sludge!

4.2.3.n. This is another reason to establish a mechanism for higher application rates of E.Q.S. products. It has been repeated demonstrated that Alkaline Pasteurized Biosolids, for one, can improve the pH of acidic soils indefinitely after only one application. Carey Technologies has achieved this on soils with a pH as low as 2.3 with applications of 70 to 100 dry tons per acre. (relatively little considering the resulting vegetation and improvement of water quality- no additional applications have been required.

5.3 this whole section should exempt E.Q.S. products or at least set guidelines for cleaner or diluted materials.

5.3.4. - N-Viro Soil has been cleared by the 503's to be spread on food chain crops.

6.3.1 and 6.3.2 These fees should be reduced according to the level of treatment that the material has undergone. Land Applying Class B liquid is not the same as a farmer using a registered fertilizer made from Biosolids that have under gone treatment from a class A technology. The use of a fee system to support inspection and fund research is good, however these fees are excessive and could prevent recycling from taking place due to the competitive bidding process (it could always be cheaper to dispose of in the landfill). In addition by applying these fees "across the Board" the State is contributing to the removal of any incentive that a generator may have to seek a higher and safer level of treatment for his/her Biosolids. What exactly is a material derived from sewage sludge? This needs to be defined. Why do smaller operations subject to less treatment pay less than operations with pre-treatment requirements?

6.6.3. - Municipalities and Landfills should be able to make cover out of their own products--particularly if these products can be used without further permitting--according to the 503 regs. mentioned in this document.

Appendix A - Again these rates are excessive. Specifically the frequency of monitoring for 1,500 to 15,000 and over 15,000 dry ton facilities. It could be estimated that a facility generating over 15,000 dry tons per year would spend over $150,000 in testing alone. If these guidelines are not reduced it will contribute further to higher costs, again reducing the realistic opportunities to recycle this valuable (if properly handled) resource.

WETZEL COUNTY SOLID WASTE AUTHORITY
P.O. Box 192, Proctor, West Virginia 26055

Office of Waste Management, DEP
1356 Hansford Street
Charleston, WV 25301
Attention: Bill Rheinlander

June 16, 1993

Dear Mr. Rheinlander,

The Wetzel County Solid Waste Authority would like to submit the following comments regarding Title 47, Series 38D, "Sewage Sludge Management Regulations". While our authority recognizes the time constraints and the enormity of the task of promulgating these rules in a timely fashion, we also feel it is imperative that these rules and regulations reflect the intent and will of the legislature. They clearly do not.

In reviewing this document, we found so many gross inconsistencies not only between these rules and regulations and the intent of SB 288 but within the document itself that it was difficult to determine whether our recommendations should be to change specific passages or to start from scratch. We chose to offer specific comments as well as offer the strong suggestion that the writers of these rules and regulations go back to the drawing board and make the rule reflect the contents and intent of SB 288.

The Fiscal Note for a Proposed Rule states that there will be no fiscal change as a result of these rules and regulations. This statement is false. Up until the time the Office of Waste Management was transferred from the Division of Natural Resources to the Division of Environmental Protection, sewage sludge processed and placed at the Wetzel County Landfill was counted against the monthly tonnage and all applicable solid waste fees were applied.

After the transfer of the Office of Waste Management to the Division of Environmental Protection, sewage sludge processed and placed in the Wetzel County Landfill, with the exception of New Martinsville, Jefferson County Ohio, and Paden City, was exempt from all tipping fees and not counted against the monthly tonnage. There were many contracts either in the process of negotiation or already signed, but the one contract that was closely scrutinized was from Nassau County, New York. This single contract was for 108,000 tons of sewage sludge per year to come to Brooke and Wetzel counties. Until SB 288 was passed, Director Callaghan's policy of not counting sewage sludge composted at and placed in a solid waste facility was costing the state $1 million per year for the Nassau County contract

alone. It was costing the host county solid waste authorities $49,000 per year. Nassau County was the tip of the iceberg. We soon learned of a signed contract with Westchester County and proposed contracts with Jamaica, NY; Bergen County, NJ; to name a few.

These rules and regulations also impose fees upon local POTW systems for land application and remediation. These fees are substantially lower than landfilling. These rules and regulations would also require that extensive capital be spent to comply with stringent sludge containment requirements that could price small generators of sewage sludge out of the composting business. This entire provision is ignored under the fiscal note provision of B.1. Economic Impact on Political Subdivisions: No impact.

The Fiscal Note should give direct reference to the fees required to be collected by solid waste facilities processing sewage sludge that is required under 20-5F-2b(e). Using the figures from 1992, the fiscal note should include the programs that will benefit by resuming the policy of counting sewage sludge as solid waste when it is handled at a solid waste facility.

Our second specific objection is to 47-38D-1.5. where federal rules are incorporated by reference. One of the primary reasons other states are targeting West Virginia as a sludge depository is the lack of rules and regulations that are more stringent than 40-CFR-503. New York, New Jersey, Pennsylvania, Maryland, Ohio, Virginia and Kentucky are but a few states that have discovered the weakness in the EPA 503 rule and have established rules more stringent than current EPA guidelines. More importantly, there are specific portions of EPA 503 rule that are in direct contradiction to the mandate of West Virginia Code. These contradictions must be reconciled to reflect the legislative intent of West Virginia Code.

On page 2, section 2.8 of the proposed rule there is a definition of a "Class A Sewage Sludge Processing Facility". Since such a facility would be the same as a "Class A Facility", referred to in 2.7, we find the definition of a Class A Sewage Sludge Processing Facility to be redundant and respectfully request that it be removed from the definitions. Since sections 2.9 and 2.10 would also be classified as solid waste facilities, the definitions of Class B and C Sewage Sludge Processing Facilities would also be redundant. These two definitions should be eliminated as well.

On page 6, section 2.43 in the definition of "Source Separated Organic Materials", we would like to see the inclusion of the following language after the final word "septage." to be amended to "...septage, or wood waste that consists of treated lumber."

On Page 7, 47-38D-3 STANDARDS FOR USE, DISPOSAL AND PROCESSING OF SEWAGE SLUDGE starting with section 3.1 Incorporation of Federal Regulations; we must again vigorously object to the blind incorporation of 40 CFR part 503 rule. The 503 rule is not only in direct contradiction to the newly adopted SB288, but it is even weaker than existing rules for land application of sewage sludge currently administered under the Office of Water Resources, under the direction of Dr. Eli McCoy.

Section 3.2 also needs many changes. This section is also a watered down version of the current rule followed by Dr. McCoy. There are other more stringent models that would enhance the protection of West Virginians while protecting the on-going practice of small scale controlled land application of sewage sludge that has been occurring for years. The legislature intended to protect the current policy of 75% of the POTW's land applying sewage sludge with minimal impact. Our Authority supports the legislature's efforts to this end.

Our Authority suggest the following changes:

3.2.1.a. Should read, "Land that is frozen, snow-covered, or known to be flooded on a regular basis." Delete all subsequent language in this sub-section.

3.2.1.b. Amend to, "Land within 300 feet..."

3.2.1.c. Amend to, "Land within 1000 feet..."

3.2.1.d. Amend to, "Land within 1000 feet of an occupied dwelling or within 600 feet of an occupied dwelling with the signed consent of the owner of said dwelling.

3.2.1.e. Amend to, "Land within 50 feet of any public highway or road."

3.2.1.h. Amend to, "Land that has been tested and determined to have a pH of less than 6.5"

3.2.1.i. Amend to, "Land that has a slope greater than 6%."

3.2.1.j. Amend to, "Land that has a seasonal high groundwater table less than 5 feet from the surface."

3.2.2 refers solely to soil concentration limits referred to in the 503 rule. This is in direct contradiction to West Virginia Code 20-5F-2b(b)(6). The 503 language gives reference to the contaminants within the sludge applied without factoring in the pre-existing contaminants within the soil. 20-5F-2b(b)(6) specifically requires the DEP to do a statistical analysis of the pre-existing elements of the soil that will receive sludge.

It is the responsibility of the DEP to establish maximum loading limits and apply those limits based upon what already exists in the soil combined with the contaminants present in the sludge to be land applied. Should the combined total of contaminants within the soil and contaminants within the sludge exceed the maximum loading limits, land application at that site should be prohibited.

The Authority further recommends the following be added after 3.2.3., "3.2.4. No land within a solid waste

facility, but outside a landfill disposal cell, be allowed to accept the permanent application of so much sewage sludge as to exceed the agronomic rate or a rate of fifteen dry tons per acre per year, which ever is less." This language is lifted verbatim from the code and would prohibit the so called sludge dedication sites referred to in in 40 CFR section 503.

Section 3.3. SEWAGE SLUDGE PROCESSING FACILITY OPERATIONAL AND DESIGN REQUIREMENTS (beginning page 8)

3.3.1.c. Amend to, "The facility must not be operated or constructed within the one hundred year flood plain." Delete everything else.

In sections 3.3.1.d., including A.through E., our Authority supports these stringent specifications when they apply to large scale generators or importers, but when applied to small scale facilities, this yardstick seems inappropriate. While a household generates garbage that is collected in a container and that garbage generates lechate, the law doesn't require a home owner to build a miniature landfill. While construction and demolition landfills do require some environmental safeguards, they are not nearly as stringent as those that apply to solid waste landfills. By the same token, it is unfair to place small municipalities in the same playing field as major metropolitan areas. The environmental rule in West Virginia needs to incorporate the amount of sludge generated combined with the toxicity of any sludge generated or imported.

The Wetzel County Solid Waste Authority would support language that would adjust the environmental requirements according to the quantity and quality of sewage sludge generated. A good place to start would be to require sewage sludge processing facilities generating 500 tons per monnth or less to have an asphalt pad in lieu of the stringent liner requirements for larger facilities.

3.6. Amend to delete the final sentence, "Alternative sludge disposal methods can be utilized upon obtaining written approval from the chief." This gives the chief entirely too much latitude and exempts propsed disposal alternatives from public notification or comment.

47-38D-4 PERMITS REQUIRED

4.1.2. In order for this section to reflect the code, 20-5F-2b(12)(c), it should read as follows: "For those publicly owned treatment works (POTW) which produce sewage sludge and are regulated by the division pursuant to an NPDES permit required under article five-a of this chapter, a sewage sludge processing permit shall be a part of the existing water pollution control permit and shall include a sewage sludge management plan approved by the chief."

4.1.3. The Wetzel County Solid Waste Authority has many major problems with this section not only as it applies to Wetzel County but the impact it will have upon the entire state. Quite candidly, this sub-section creates wretched state policy.

The permit issued to the Wetzel County Landfill, permit #SW-1021-92 under E. Permit Conditions section 1. states "This facility has submitted the Module A (NPDES) Application....Incorporation of Module A into the Solid Waste Facility Permit is required and will constitute a "major modification" and all related regulatory requirements must be met thereunder.". Yet 4.1.3. states that "...a sewage sludge processing facility MODIFICATION WILL BE OBTAINED (emphasis ours) as a part of the existing solid waste permit and shall include a sewage sludge management plan.".

It treats a sludge processing facility as a minor modification. There are no provisions for public input, no requirement that such a drastic change in land use would have to comply with the county or regional solid waste authority's siting plan, no requirements of county or regional solid waste authority approval. Furthermore the language "will be obtained" nearly implies a mandate that the DEP grant a sludge processing facility modification to ANY permitted solid waste facility, be they a recycler, a transfer station or a landfill. The requirements for a permitted solid waste facility to receive a "sewage sludge processing modification" are less stringent than those required for POTWs under 20-5F-2b(12)(c). POTW's are required to receive a permit while permitted solid waste facilities are required by the proposed rule to only obtain a modification.

It is the opinion of the Wetzel County Solid Waste Authority that any permitted solid waste facility seeking to process sewage sludge should obtain a permit as required for POTW's, and that such a permit be subject to the provisions established within the local or regional solid waste authority's siting plan. If sewage sludge processing facilities are expressly or tentatively prohibited within the host county's plan, or the area proposed for sewage sludge processing has not been designated an acceptable area, the permitted facility must obtain approval from the regional or county solid waste authority before the DEP can issue the sewage sludge processing permit.

In the same manner POTWs are required to obtain an additional permit even though the volume of sewage and sludge remains constant, permitted solid waste facilities would be seeking a permit for a new activity upon a pre-existing site. They would still be bound by the tonnage limits and fees required in 20-5F-2b(12)(e). Obtaining a sewage sludge processing permit for a permitted solid waste facility should be treated as a MAJOR MODIFICATION to an existing solid waste facility permit and subject to the provisions of 3.18..

4.1.4. Amend after the words "Series 38..." by adding "and any and all Certificate of Need requirements as required by the Public Service Commission."

4.1.5. Should be amended to add provisions within the code that require public participation.

4.2. GENERAL, PROCESSING FACILITY, AND LAND APPLICATION PERMIT REQUIREMENTS.

4.2.1.i. Since the 503 rule is very weak in the area of quality control and this section references all of 40 CFR, Part 503, we recommend rewriting this entire section. This rewrite should include an analysis for heavy metals to include but not be limited to arsenic, cadmium, chromium, copper, lead, molybdenum, nickel and zinc and a testing for toxic and hazardous materials using toxic characterization and leaching property (TCLP) tests. Standards should also be established for refusing sludges that test too high for specific toxins or heavy metals.

4.2.2.a.A. Please amend to "A regional map, or maps (of appropriate scale that delineate SEWAGE SLUDGE PRODUCING AREA..." As this subsection reads now, a sewage sludge processing facility could simply locate every POTW sending sludge to their facility. This wouldn't reveal whether the POTW was receiving large quantities of waste water from industry or residents nor would it reveal the size of the population serviced. By amending the regional map to delineate the sewage sludge producing area, you will have a clearer picture of the types of customers feeding into any contributing POTW.

4.2.2.c.E. Please amend to include the following after the final word, "conditions;" to,"to include a landfill that will accept the unused product. Any finished compost may not be stored on site for a period of more than 120 days. After 120 days, any finished compost must be applied within accordance with these rules and regulations or landfilled;"

4.2.2.e.I. " The expected mass balance through the composting system;" should be deleted. This is the creation of a formula to anticipate the difference between the weight of uncomposted sewage sludge and the weight lost due to composting. We assume the purpose is to credit a solid waste facility for the compost that leaves the facility for land application purposes and exempt composted sludge leaving a solid waste facility from the fees required by 20-5F-2b(12)(e).

There are many problems with using such a blanket formula. All sludge is not equal. While our rules and regulations require sludge to be at least 20% solid by weight, the city of New Martinsville's sludge is over 50% solid by weight. If the formula used assumed that every ton of sludge processed was 20% solid by weight, it would take

five tons to equal one ton of sewage sludge subject to the tipping fees, while in many cases, the actual case would be two tons would equal one ton. The state would be losing $8.25 per ton for every ton that would slip through the cracks using this formula.

Furthermore, this formula assumes that all sludge will be composted effectively and the 80% water will be removed. Again, every miscalculation of this formula will result in a loss of revenues of $8.25 per ton to the state.

The only equitable way to compensate a solid waste facility for the compost that leaves the facility is to credit them for the actual weight that leaves the facility. Therefore, the Wetzel County Solid Waste Authority recommends the following replacement language for 4.2.2.e.1. "All applicable fees required by 20-5F-2b(12)(e) shall be paid as proscribed by this chapter on any sewage sludge entering a solid waste facility based on the actual weight of the sludge as it enters the facility. Any composted sewage sludge leaving the solid waste facility shall be weighed and the actual tonnage leaving the facility shall be deducted from the monthly tonnage and all fees as proscribed under 20-5F-2b(12)(e) shall be waived;". This language would specifically spell out your intent. It may be better placed in 47-38D-6 Fee Assessment, however we found no reference any place in these proposed rules and regulations that dealt with the fees mandated by 20-5F-2b(12)(e). Perhaps this language should be replacement language for 6.3.3.

4.2.3.n. Please amend "maintain the soil to a minimum pH of 6.5..." and include language for penalty assessments for non-compliance.

47-38D-5. GENERAL, PROCESSING FACILITY, AND LAND APPLICATION PERMIT REQUIREMENTS.

5.2.3. Kiln dust in many states is actually the ash from unregulated, unmonitored hazardous waste incinerators, since many cement kilns burn hazardous waste for fuel and have carved a neat little exemption for themselves under federal law. Our Authority would urge the prohibition of kiln dust from any sewage sludge processing facility, landfill, composting facility, or land application. If we do accept kiln dust, it should be treated as special waste and TCLP, heavy metal and most importantly PCB and dioxin testing should be done on any proposed acceptance of kiln dust. The most stringent standards we can find should be applied to kiln dust.

47-38D-6. Fee Assessment

6.1. Please amend "Any person required to obtain a solid was facility permit pursuant to these regulations" to "Any producer or importer of sewage sludge or product thereof

shall be subject to...". The purpose of this proposed amendment is to close any loophole that may exist in this proposed rule.

6.3.3. Please see our comments on 4.2.2.e.I. In addition, we object to the dedication of these fees solely to the Solid Waste Enforcement Fund. There are many other places these fees apply, specifically the 50 cents per ton to the host county solid waste authority not to mention the recyling fund the $1 per ton for the Solid Waste Management Board, the landfill closure fund to mention a few. The code, 20-5F-2b(12)(e), states that, "All Sewage sludge placed in, or upon, or used by a solid waste facility or processed or handled, pursuant to a permit issued by the division of environmental protection, shall be subject to the same tipping and other fees levied by this chapter on the disposal of solid waste..." Please note there is no codified dedication of fees solely to the Solid Waste Enforcement Fund. Furthermore, 6.3.3. ignores the inclusion of the optional host county fee that can be assessed.

A section that is missing from these regulations is 47-38D-7 Enforcement. There are absolutely no consequences under this rule for non-compliance. Our Authority suggests language be adopted to issue citations for non-compliance and place the offending generator or importer on a compliance schedule to remediate the violation. We further suggest if the violator doesn't come into compliance within the time frame required, fines be levied. We further suggest that language be included to authorize the director to revoke the permit of an importer or generator of sewage sludge that doesn't comply or repeatedly violate the provisions of Chapter 20 and these rules and regulation in regards to sewage sludge. Language that spells out the appeal process should be included in this section as well.

Another item that is absent from this proposed rule is any reference to the role of the Office of Water Resources. Our Authority would like to see a section of this proposed rule clearly defining the role of the Office of Water Resources. It is our understanding that Dr. McCoy's office currently oversees the land application of sewage sludge and the issuance of NPDES permits for POTWs. The specific roles of both the Office of Waste Management and the Office of Water Resources should be clearly spelled out in the proposed rule to avoid any future confusion.

The Wetzel County Solid Waste Authority would like to see these rules and regulations have as little impact as possible on local POTWs. In the drafting of the many versions of what is now known as SB 288, the intent of the legislature was consistently to draft language that would have minimal impact upon local POTWs and to simultaneously avoid any unconstitutional differential treatment of waste coming into West Virginia.

In codifying limits to the size of sewage sludge facilities and rates of land application of sewage sludge, the legislature was trying to protect the citizens of the state from being the recipients of vast quantities of sewage sludge. They accomplished this by requiring responsible land use policies be adopted in regards to sewage sludge.

The purpose of these lengthy and specific comments has been to ensure the legislative intent of SB 288 would remain intact. It is our sincere hope that you will amend your proposed rules and regulations to reflect West Virginia code, treat local POTW's gently, and protect West Virginians from becoming host to America's sludge pit.

Martha Huffman
Wetzel County Solid Waste Authority

Natural Resources
Defense Council

40 West 20th Street
New York, New York 10011
212 727-2700
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May 19, 1993

Part 503 Sewage Sludge Use and Disposal Rule
Comment Clerk
Water Docket MC-4101
Environmental Protection Agency
401 M Street, SW
Washington, D.C. 20460

Re: **Comments on Cadmium Standards under Final Rule, Standards for the Use or Disposal of Sewage Sludge (58 Federal Register 9248 et seq., February 18, 1993)**

To the Comment Clerk:

The Natural Resources Defense Council ("NRDC") and the Environmental Defense Fund ("EDF") submit these comments on the cadmium standards under the "Final Rule, Standards for the Use or Disposal of Sewage Sludge" (58 Federal Register 9248 et seq., February 18, 1993). The Preamble to the Final Rule provides that "EPA welcomes additional data and analyses related to [the cadmium] standard and will consider any such additional information received by the Agency within 90 days of publication of today's rule." (58 Federal Register 9276).

NRDC and EDF submitted joint comments on the "Proposed Rule, Standards for the Disposal of Sewage Sludge", on August 7, 1989, and has met with EPA representatives on numerous occasions to present our views on the final provisions of the Part 503 Rule.

NRDC and EDF are very concerned that the cadmium standards under the Final Rule for the cumulative application of sludges and for APL sludge do not meet the requirements of the Clean Water Act, Section 405(d)(2)(D) to "adequately protect

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public health and the environment from any reasonably anticipated adverse effects" of cadmium-polluted sludge. Therefore the cadmium limits should be revised to ensure adequate protection. We recommend that the standards be revised to provide an application limit of at most 21 mg/kg, and an APL limit of at most 21 mg/kg.

It should be noted that our proposed standards are consistent with a 1981 Interagency Policy Statement on Sludge Use on Land for the Production of Fruits and Vegetables. That Statement was a joint statement of EPA, the U.S. Department of Agriculture and the U.S. Food and Drug Administration. Given EPA's reversal on the proper cadmium standards, both the USDA and the FDA should be given full and ample opportunity to offer comments on the 39 mg/kg cadmium standards of the Final Part 503 Rule and EPA should be required to respond to their comments fully and adequately.

Revision of the Final Part 503 Rules according to comments received during this comment period should proceed expeditiously; at the very latest, revisions should be integrated in the Rule and the Rule fully promulgated by October 1, 1993 (allowing over four months for the revision process). Revision should not delay progress on Round II of the Part 503 Rule.

Our comments are:

1. **Cadmium Poses A Greater Risk When Applied to Acidic Soils Yet EPA Bases its Cadmium Limit Primarily on Data From High pH Soils**

EPA has set a cadmium limit of 39 mg/kg. That limit is based in part on data concerning cadmium uptakes where cadmium-polluted sludge was applied to largely high pH soils. However, cadmium uptake is greater, and cadmium poses a greater risk, in acidic soils.

EPA was presented with considerable information on the issue of cadmium uptake on acidic soils by representatives of the U.S. Department of Agriculture, and yet failed to take such information into account and lower its cadmium limits to conform with USDA proposals. Furthermore, EPA failed to include pH requirements in the Final Rule to ensure that the assumptions made in determining the 39 mg/kg limit (i.e., high pH soils) would prove true in actual land application of sludge under the Rule.

Acidic soils make up approximately half the agricultural lands in the United States. In the Northeast, an area where large-scale sludge application programs are being considered as the nine ex-ocean dumpers develop their long-term sludge management program, the soils are predominantly acidic.

Because of the greater risks of cadmium uptake in acidic soil, and because of the great acreage of acidic soils used by U.S. farmers, NRDC and EDF recommend that the

cadmium limit for land application and APL sludges be lowered to at most 21 mg/kg. Information presented by the USDA indicate that such a limit would provide adequate protection of public health and the environment from sludge applied on all soils.

2. **EPA Used A Geometric Mean to Determine Dietary Intake of Cadmium, Despite the Reality of Human Consumption**

The EPA calculated dietary uptake of cadmium utilizing geometric means of daily intakes. However, individuals eat the sum of cadmium in their diet over their lifetime (calculated by arithmetic means), not the geometric mean of daily intakes multiplied by the number of days exposed. Thus, the sum of actual intakes is likely to be greater than the geometric means summed across the days of exposure.

As the USDA has pointed out in comments to EPA, the use of arithmetic means results in a lower cadmium limit, consistent with our recommendation that the cadmium standards be changed to at most 21 mg/kg.

3. **EPA Underestimated the Total Risk to the Home Gardener**

In determining risk to the home gardener from cadmium-polluted sludge, the EPA failed to take into account that not only will the home gardener consume his/her own products but also other products potentially grown with sludge, including grains and produce. Thus the rate of daily cadmium ingestion will in fact be higher than assumed by the EPA.

In order to provide adequate protection to the home gardener, we recommend that the sludge APL standard for cadmium be lowered to at most 21 mg/kg.

4. **The National Sewage Sludge Survey Indicated that a Cadmium Standard of 21 mg/kg is Currently Achievable**

The National Sewage Sludge Survey indicated that a significant amount of the sludge produced nationwide can currently meet a cadmium standard of 21 mg/kg. Furthermore, the survey's data indicates that feasible improvements in pollution prevention and industrial pretreatment could bring virtually all sludges to such a standard or lower.

NRDC and EDF are very concerned that EPA's cadmium standard will result in a backsliding of sludge quality and a reduced commitment to pollution prevention and pretreatment. Not only will the risks of land application of sludge therefore be unnecessarily (and unreasonably) increased, but it is likely that effluent quality from sewage treatment plants will degenerate, resulting in degradation of receiving water quality.

The 1987 amendments to the Clean Water Act, including both the anti-backsliding provisions and the 405(d) provisions, demonstrate Congress' clear intent that regulations governing sludge and water quality promulgated under the Clean Water Act should not result in a backsliding of sludge and effluent quality.

Given the current status of sludge quality in the United States, and the ability of all sludges to meet a cadmium limit of at most 21 mg/kg, EPA should require no less in its rule.

5. **The Export of Grains Will Be Jeopardized by EPA's Cadmium Standards**

Despite repeated entreaties from USDA, EPA has refused to recognize the serious impact its cadmium standards will have on the ability of U.S. farmers to export agricultural products grown with sludge. Not only may farmers be subjected to increased and expensive testing/certification requirements when exporting grains, but those products will be rejected if grown with sludge conforming to EPA's standard of 39 mg/kg. According to the USDA, the economic losses associated with increased certification requirements and loss of overseas markets will be significant and potentially devastating for some farmers.

6. **The USDA May Come Out with Its Own, More Stringent, Cadmium Standards To Protect Farmers That Will Conflict with EPA's Standard and Undermine Public Confidence in Beneficial Use of Sludge and in EPA**

The USDA has raised serious issues to EPA concerning the cadmium standards for land application of sludge, including concerns over acidic soils, export grains, and the economic viability of farmers. Because EPA has not responded to those concerns, there is a possibility that USDA will issue its own guidance to farmers on sludge use, which will include more stringent cadmium standards.

If the USDA comes out with its own standards, a message will be sent that EPA cannot ensure adequate protection of public health and the environment, and public confidence in EPA and in the Part 503 Rule for Sludge Use and Disposal will be undermined. NRDC and EDF urge EPA to work with USDA in resolving the issues of concern: both agencies have a responsibility to coordinate and harmonize their activities to send a clear meassage to the regulated community and to the public about the benefits of sludge reuse.

We recommend that in order to address the issues identified by USDA, EPA revise its cadmium standards to at most 21 mg/kg for land application and 21 mg/kg for APL sludges.

7. **The Opinion of the Food and Drug Administration Should Be Solicited on the Appropriate Standards for Cadmium**

It has come to the attention of NRDC and EDF that the FDA did not offered official comments on the proposed 503 Rule, including the proposed cadmium standards. We recommend that during the period set aside for review of comments received on the final cadmium standards, official comments of the FDA be solicited. In addition to clear jurisdictional interest over the matter of agricultural products grown with sludge, the FDA has expertise that could be very useful to the EPA in determining the adequacy of its cadmium standards.

Furthermore, the FDA was a signatory, along with EPA and USDA, to the 1981 Interagency Policy Statement on Sludge that recommended a 25 mg/kg standard for cadmium, along with EPA and USDA. Given the dramatic reversal of EPA on the appropriate standard for cadmium, the FDA must be fully briefed on EPA's reasoning and given an opportunity to offer official comments on the 39 mg/kg standard.

Thank you for this opportunity to offer comments on the cadmium standards in the Final Part 503 Rule. We look forward to working with you further on this and other issues presented under the Part 503 Rule.

Sincerely,

Nina Sankovitch
Senior Project Attorney
Natural Resources Defense Council

Sarah Clark /nms

Sarah Clark
Senior Scientist
Environmental Defense Fund

DEPARTMENT OF COMMERCE, LABOR & ENVIRONMENTAL RESOURCES
DIVISION OF ENVIRONMENTAL PROTECTION
1356 Hansford Street
Charleston, WV 25301-1401

Gaston Caperton
Governor

John M. Ranson
Cabinet Secretary

David C. Callaghan
Director

Ann A. Spaner
Deputy Director

June 25, 1993

MEMO TO: Ann Spaner, Eli McCoy, Bill Brannon and Clifton Browning

FROM: Bill Rheinlander BR

SUBJECT: Sewage Sludge Comments

Enclosed is a complete copy of the sewage sludge regulation comments we received during the recent 30-day comment period.

Enclosures

January 22, 1993

Note to: Carol Browner, Administrator

From: Richard Guimond, Acting Assistant Administrator,
Office of Solid Waste and Emergency Response

Subject: WTI Incinerator Issues

BACKGROUND: This note is to bring you up to date on the activities we have underway to evaluate the issues relative to the Waste Technologies Incorporated (WTI) incinerator in Ohio. This incinerator has obtained all of the necessary permits to conduct a trial burn. However, strong opposition from local citizen groups has led to a court hearing (which was to have been today but has been postponed until February 8) on whether a temporary restraining order should be imposed to prevent operation of the facility. WTI has verbally agreed not to commence the trial burn or limited commercial operation until after the hearing.

ISSUES: The immediate issue is whether the WTI risk assessment prepared by EPA is adequate. This assessment, which by EPA policy is site-specific, showed that risks from the incinerator emissions (including emissions of dioxins) were within the range of risks historically considered acceptable by EPA. A longer term issue, which will require Agency-wide consultation, is how to devise a national policy regarding indirect exposure assessments for dioxin. This could have major implications for numerous EPA programs and could require a reevaluation of risks at many other sources of air emissions.

The risk assessment was prepared by the Region 5 office for the WTI facility. It focused primarily on risks associated with inhalation of the emissions, an approach which the Agency has historically used in evaluating air emissions. Region 5 concluded that indirect exposure routes (e.g., consumption of food raised in the area) were not likely to present significant additional risk based on a draft dioxin risk assessment for another combustion unit.

The Office of Research and Development (ORD) has a draft document, "Estimating Exposures to Dioxin-Like Compounds," which describes a methodology and provides an example of how indirect exposures, such as exposures from soil contamination and subsequent food chain contamination resulting from air emissions, can be evaluated.

Greenpeace used a specific example from this document to attempt to show that risks from consuming products from cattle raised near the incinerator can be 10,000 times greater than the risks from inhalation and are, therefore, unacceptable. The use of the example from the ORD report in the WTI situation is not appropriate, since the risks from air emission sources are very highly dependent on site-specific factors. However, a preliminary

assessment done by ORD does show that risks from beef and milk consumption can be 1,000 times higher than risks from inhalation near the WTI facility. It is important to note that, even using the worst-case indirect exposure analysis, the risks to the public during the trial burn period would be within what has been considered acceptable. The Greenpeace submittal also contains other analyses that show very high risks. However, both the Office of Solid Waste and Emergency Response (OSWER) and ORD agree that these analyses use extreme, unrealistic assumptions.

There are very significant implications associated with adopting risk assessment procedures based on indirect exposure routes for air emission sources. These analyses have a much greater degree of uncertainty because they involve a large number of exposure-related assumptions. If conservative assumptions are used for all exposure related parameters, risk estimates can be unrealistically high. The analyses of the WTI situation show that many air emission sources could be affected if EPA were to adopt the indirect exposure analysis procedures in assessing exposure risks.

ACTIVITIES UNDERWAY: My staff met with ORD on Friday, January 22 to discuss the analytical steps that must be undertaken in preparation for the upcoming District Court hearing. In addition, my staff is reviewing all of the risk assessment efforts related to WTI and the ORD report on dioxin exposures to ensure that any differences can be explained. Staff are also working with ORD to collect relevant data on dioxin emissions from different sources and on risk assessments which have been done on those sources. Finally, the Agency must address the court's question concerning why we need the trial burn data in order to prepare a more comprehensive risk assessment.

For the immediate future, we have scheduled a technical meeting on Monday, the 25th, which will include personnel from Region 5 to review all of the risk assessment issues. We will then hold a management level meeting on Tuesday, the 26th, to develop recommendations on how we should proceed.

We are also developing an in-depth briefing for you on the WTI issues. We will work with your staff to schedule the meeting. Please let me know if you have any questions or need any other information.

cc: Linda Fisher
Dick Morgenstern
Mike Vandenbergh
Loretta Ucelli
Diane Regas

BIO GRO SYSTEMS

Sludge Management • Specializing in Beneficial Use

June 21, 1993

Mr. Bill Rheinlander
Division of Environmental Protection
Office of Waste Management
1356 Hansford Street
Charleston, WV 25301

Re: Proposed Sewage Sludge Management Regulations (Title 47, Series 38D)

Dear Mr. Rheinlander:

Bio Gro Systems, Inc. operates biosolids land application projects throughout the United States. Our experience includes permitting land application sites, transporting and land applying biosolids on agricultural land and reclamation sites, managing field operations, and performing monitoring and reporting for land application programs. We also have experience permitting and operating biosolids processing facilities and then marketing and distributing the end products.

We offer the following comments on the proposed Sewage Sludge Management Regulations:

47-38D-2 Definitions

2.21 For clarity purposes, the definition of "Importer" should be revised to read "means any person bringing in or receiving sewage sludge from any source outside the State of West Virginia for the purpose of processing."

2.44 "Stabilization" - This term should be deleted from the proposed regulations since 40 CFR Part 503 does not specifically address stabilization but rather lists pathogen and vector attraction reduction requirements. Also biosolids can be stabilized by other methods than the decomposition of organic matter (e.g., lime stabilization).

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Bio Gro Systems, Inc. • 180 Admiral Cochrane Drive • Suite 305 • Annapolis, Maryland 21401 • (410) 224-0022 • Fax (410) 224-0152

3.2 Sewage Sludge Land Application Siting Restrictions and Location Standards

Overall Comment:

To be consistent with 40 CFR Part 503, this section should contain wording that these requirements do not apply to sewage sludges or products derived from sewage sludges which meet the pollutant concentrations in 503.13(b)(3), the Class A pathogen requirements in 503.32(a), and one of the vector attraction reduction requirements in 503.33(b)(1) through (b)(8). EPA's justification for not imposing these types of restrictions is outlined on page 9328 of the Part 503 Preamble which states:

"The rationale for not imposing the general requirements and management practices on bulk sewage sludge and sewage sludge sold or given away in a bag or other container for application to the land is that the sewage sludge that meets the three identified quality requirements is a valuable commercial product. Because of this, EPA concluded that the probability of improper application of the sewage sludge is low and the additional requirements are not necessary to protect public health and the environment. In addition, the Agency determined that over-application of the sewage sludge will not occur because over-application reduces crop yield, which nullifies the main reason to apply sewage sludge to the land in the first instance. The Agency concluded that when the sewage sludge meets the three quality requirements, it is a fertilizer material and should be treated similarly to other fertilizers."

The proposed rule offers no incentives for producers to improve their sludge quality and further reduce the pathogen content of their sludges.

3.2.1.a. This sentence should be amended to insert the words "of sludge" after the word "runoff" since runoff in itself may occur without the actual transport of sludge.

3.2.1.b. To be consistent with the federal regulations [503.14(b)] and simplify the number of standards being imposed, we suggest the buffer zone be changed to 33 feet (10 meters).

"Lakes" should be added to the list of surface water features. The language "or other collection points for surface water" is subject to wide interpretations and should be deleted from the regulations. Specific

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buffer zones for other features should be listed in the regulations. We suggest the following:

Intermittent streams/sediment and erosion control ponds - 25 ft.
Agricultural drainage ditches with adjoining land slopes $\leq$ 2% - 10 ft.
Agricultural drainage ditches with adjoining land slopes $\geq$ 2% - 25 ft.

3.2.1.f. This provision should be revised to read "Land within 100 feet of an adjacent property owner's property unless the adjoining landowner consents in writing to a reduction or waiver of this requirement." This is a common practice in many states as it helps reduce the area of a farmer's field which must be fertilized with other materials if the adjoining property owner does not object to application closer to their property line. The current provision would also negatively impact two adjoining farmers who are both having biosolids applied to their property.

3.2.1.g. This requirement is too broad. A specific buffer zone to sinkholes such as 50 feet as required by Virginia regulations should be established rather than totally prohibiting land application.

General Many states allow reductions in buffer zones if biosolids are injected or surface applied and incorporated the same operating day since these operations minimize the potential for runoff and address aesthetic concerns. For this reason we suggest the following wording be added to this section of the regulations: "The stated buffer zones to adjacent property boundaries, roadways, surface waters, and drainage ditches may be reduced by one-half (50%) for subsurface application (includes same day incorporation)."

To add flexibility to the regulations, the Department may also want to consider including the following language regarding buffer zones: "The Department has the authority to increase or decrease the stated buffer zones based on site specific features." For example, this would allow the use of biosolids to establish vegetation on highway construction or reconstruction projects.

3.2.1.h. This requirement should be revised to read "Land that has been tested and determined to have a pH of less than 5.5 unless the sludge which will be applied contains sufficient lime to raise the soil pH to a

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level of 5.5 or greater." 40 CFR Part 503 does not contain pH adjustment requirements because the metal loading limits are designed to be protective even under acid soil conditions. We support a minimum pH level of 5.5 because levels less than this is a poor agronomic practice.

3.2.1.i. This requirement should be revised to read "Land that has a slope greater than 15% except as otherwise approved by the Department" since slopes greater than 15% may be encountered on reclamation projects and sufficient sediment and erosion control measures are used to prevent movement of biosolids into surface waters.

3.2.1.j. This requirement should be revised to read "Land that has seasonal high groundwater table less than 2 feet from the surface at the time of application" to clarify that these sites can still be used for biosolids applications during suitable periods of the year. Fields which contain soils with seasonal high water table conditions are currently farmed and fertilized in the State and therefore these sites should not be prohibited from receiving biosolids applications.

3.2.1.l. These limits may be appropriate for designing septic tank drainfields but should not be applied to the land application of biosolids since these are significantly different management practices.

This requirement also should be deleted from the regulations since 1) biosolids must be applied at rates not to exceed the nitrogen requirement of the crop to be grown, 2) biosolids have soil conditioning properties which help improve the tilth of both light (sandy) soils and heavy (clayey) soils and 3) biosolids are an organic (slow release) fertilizer. The state does not restrict farmers from farming these soils with commercial fertilizers and animal manures and therefore should not single out biosolids from being applied to these soils especially in light of the beneficial properties of this material. At a minimum, case-by-case approval of these sites should be allowed.

3.3.1.d.A. A provision to allow other types of liners (i.e., synthetic liners) should be included.

3.3.1.d.C. This requirement should be deleted since the design already provides sufficient protection through a concrete surface with a leachate collection network and a liner beneath the concrete.

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4.2.1.g. This requirement should be reworded to read "The content of heavy metals and pathogens as required by 40 CFR Part 503." This wording will define to the applicant the specific metals and pathogens which must be tested. Vectors should be deleted from this requirement since biosolids may attract vectors but they do not contain vectors. Other toxins would be covered under federal waste regulations and PCB regulations.

4.2.1.j. This requirement should be removed from this section (4.2.1.) and moved under section 4.2.2. since these requirements do not apply to land application sites.

4.2.2.b. Since a copy of these requirements were not included with the proposed rule, Bio Gro cannot provide comments on their applicability at this time.

4.2.3. Land Application Permit Requirements

Overall Comment:

To be consistent with 40 CFR Part 503, this section should contain wording that items a., c. through g., i., j., and n. do not apply to sewage sludges or products derived from sewage sludges which meet the pollutant concentrations in 503.13(b)(3), the Class A pathogen requirements in 503.32(a), and one of the vector attraction reduction requirements in 503.33(b)(1) through (b)(8). The reasons these restrictions should not apply were discussed earlier in our comments (see 3.2 Overall Comment).

4.2.3.d. An agreement between the preparer of the sewage sludge and the landowner should not be required unless the preparer is also the land applier. Individual agreements should be required between the preparer and the land applier and between the land applier and the landowner since these are the parties which have direct contact with each other. The sludge preparers responsibilities are clearly outlined by Federal law and do not need to be documented in writing with a third party (the landowner).

4.2.3.e. The requirement to describe "future" uses of the land application site should be deleted from the proposed regulations. "Future uses" of land are often unknown and the landowner will already be signing an agreement with the sludge applier which outlines his/her responsibilities to comply with access and cropping restrictions if biosolids undergoing Class B pathogen reduction are applied.

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4.2.3.g. This requirement should be dropped from the proposed regulations since past fertilizer applications only have relevance just prior to the growing season when the biosolids will be applied. In most cases, the information will be obsolete by the time the permit application is approved and the biosolids application is scheduled into the farmer's existing operation.

4.2.3.n. This requirement should be deleted from the proposed regulations. As noted in our comments above, 40 CFR Part 503 does not require pH adjustment prior to biosolids application or pH maintenance following biosolids applications. The cumulative metal loading limits required by the 503 Regulations are designed to protect human health, animal health and the environment even under acid soil conditions. In addition, biosolids applied metals have been shown to be less available over time. Although unnecessary, if any type of pH requirement is included in the state regulations, it should be only at the time the biosolids are applied which is the time when they are most likely to be available.

47-38D-5 General, Processing Facility, and Land Application Permit Requirements

5.1.1.a. The word "vectors" should be deleted since vectors are not contained in sewage sludge. Vectors should only be used in the context of vector attraction reduction requirements.

5.1.1.b. The frequency requirement for biosolids analyses should be no greater than monthly unless screening data shows a biosolids quality problem. The proposed regulations should also have a provision for decreasing the monitoring frequency down to the 503 requirements after the biosolids have been monitored for two years at the State required frequency.

47-38D-6 Fee Assessment

6.1. The words "and to cover the costs of future environmental remediation" should be deleted from the proposed regulations since it suggests future environmental remediation is likely or certain. On the contrary, Bio Gro has been unable to determine any environmental remediation problems which have been caused by regulated sewage sludge land application projects. The proposed regulations provide for environmental protection through biosolids testing and

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required field management practices. The federal regulations also include "Duty to mitigate" requirements which place the responsibility for remediation on the responsible party rather than the State.

6.2 The proposed regulations should clearly state that the funds will be used exclusively for the sewage sludge program.

6.3.1. For reasons mentioned in 6.1. above, this requirement should be deleted from the regulations.

6.3.2. The fee system should be established based on an evaluation of the anticipated costs of managing the sewage sludge program. Any funds not used should be set aside to pay for unanticipated costs and/or research to improve the sewage sludge program in the state. Finally, the fee system should be based on dry tons rather than wet tons to be equitable to producers of liquid sludges (many of which will be small treatment plants with limited funds available for payment of such fees). As noted earlier, the dry ton fee should be based on a realistic estimate of the costs of managing the sewage sludge program.

General Comment

Bio Gro Systems suggests that the newly adopted term "biosolids" be substituted for the term "sludge" when new West Virginia rules are issued. Enclosed is a guidance statement from the Water Environment Federation on the use of the term biosolids.

Bio Gro Systems appreciates this opportunity to comment on the proposed West Virginia regulations. If you have any questions about these comments, please contact us at (410) 224-0022.

Sincerely,

Jeffrey G. Faust
Research & Compliance Coor.

Bruce E. Bailey /kw
Bruce E. Bailey, CPSS
Project Development

kw:JGF078
cc: Jane Forste, Cal Miller, Bob Pepperman, Bio Gro Systems, Inc.

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Water Environment Federation
Formerly Water Pollution Control Federation

GUIDELINES FOR DETERMINING USE OF WORD "SLUDGE" OR "BIOSOLIDS"

The following guidelines, developed by the Biosolids Public Acceptance Task Force, are based on the biosolids policy approved by the WEF Executive Committee last January.

The Federation defines biosolids as "primarily organic solid product produced by wastewater treatment processes that can be beneficially recycled." The key words in this definition are "product," "wastewater treatment," and "beneficially recycled." The overall intent of the Biosolids Public Acceptance Task Force was to continue referring to untreated material (commonly known as raw sludge) as "sludge;" material that has been treated and made into a product that can be beneficially recycled would then be "biosolids."

A material is a biosolid if it meets U.S. Federal criteria for beneficial use. States can impose additional standards on biosolids.

If we look at a wastewater treatment process, anything within the treatment plant process leading up to the development of the product should be referred to as "sludge." Therefore, unless the material is a product, it would be characterized as sludge.

In a treatment plant, one might think of the following examples: Any pumps transferring untreated sludge would be referred to as "sludge pumps." A treatment plant process such as an activated sludge process would continue to be called "an activated sludge process" and produce sludge. An anaerobic digester would be treating sludge; however, the end product coming from the digestion process could be biosolids since it is a product that may be eligible for beneficial use. If dewatering follows such processing, it would be dewatering biosolids (e.g. a biosolids filter press or a biosolids centrifuge).

In taking the treated end product ready for beneficial use and putting it into a truck for distribution to land application, the truck would be referred to as a "biosolids truck." Likewise, any of the end uses would be considered application of biosolids such as agricultural application of biosolids or forest application of biosolids. One could even have the land filling of biosolids or incineration of biosolids.

When dealing with an untreated material (sludge) that is going through a composting operation, the operation would be a treatment facility handling sludge. However, the end product would be composted biosolids. If the composting was handling digested biosolids, it would be composting biosolids, and the end product would also be composted biosolids.

PRESIDENT	PRESIDENT-ELECT	VICE PRESIDENT	TREASURER	PAST PRESIDENT	EXECUTIVE DIRECTOR
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TABLE 3: Summary of British Columbia Compost Quality Classifications.

COMPOST TYPE	SS	A	B	C	D	E
METAL CONCENTRATION CODE	1	1	1 OR 2	1, 2 OR 3	1, 2 OR 3	4
FEEDSTOCK	SS	MSW	MSW	MSW	YW SS MSW	MSW
MATURITY	Mature, Semi-mature	Mature	Mature, Semi-mature	Mature, Semi-mature	Fresh	N/A
FOREIGN MATTER	≤ 1%	≤ 1%	≤ 2%	≤ 10%	≤ 10%	N/A
WATER CONTENT	≤ 50%	≤ 50%	≤ 50%	≤ 50%	N/A	N/A

MSW: Municipal Solid Waste; SS: Source Separated Waste; YW: Yard Waste.

TABLE 4: Summary of British Columbia Compost Use Restrictions by Classification.

CLASSIFICATION	RESTRICTIONS
SS and A	Unrestricted Distribution
B	Non-Food Applications: parks, forested lands, forest and horticultural nursery industry
C	Non-Food Applications: parks, forested lands, forest and horticultural nursery industry
D	Land Reclamation Projects with Limited Potential for Public Contact
E	Disposed of in Landfill

PART 503 NUMERICAL CRITERIA FOR LAND APPLICATION

ELEMENT	CUMULATIVE LOAD (kg/ha)	APL (Clean Sludge) (mg/kg)	APLR (kg/ha/yr)
Arsenic	41	41	2.0
Cadmium	39	39	1.9
Chromium	3,000	1,200	150
Copper	1,500	1,500	75
Lead	300	300	15
Mercury	17	17	0.85
Molybdenum	18	18	0.90
Nickel	420	420	21
Selenium	100	36	5.0
Zinc	2,800	2,800	140

APL - Annual Pollutant Load
APLR - Annual Pollutant Loading Rate

Office of Waste Management

Attn. Bill Rheinlander
1356 Hansford Street
Charleston, W.V. 25301

Sewage Sludge regulations

I find the following general problems with theproposed regulations;

1. No use of identified sound scientific data used for classifing A,B,C facilities no status of sludge management in the state; total amount dry or wet ton, methods of disposal(% landfilled, incinerated, land applied, lime stablized, or composted) amount of suitable land available.

2. 4.2.3d Agreement, Vertical integration allows for abuses in the system, resulting in under reporting, subsitution of materials

3. No elimination of sludge from landfills. Yard waste will be banned. Sludge is more noxious. In a sealed environment of al landfill anarobic conditions drive the pH down, this creates a hazardous leachate and generates abundant methane. We should continue weaning sludge from landfills.

4. Overreliance on C.F.R. 503.12, no explainations, interpretations or decisions--- nothing to comment on.

5. Centralization of authority within D.E.P No local involvement or recourse. Authority, respondsibility, and the beare of consequences are all separate.

6. No evidence of integration with other composting regulations or guidelines.

thank you for your consideration,

Dr. John Hannon Martin,

Attached is an outline for a sludge management program from the Waste reduction task committee of the S.W.M.B. This was submitted for discussion purposes to D.E.P. Max Robertson, November, 1992.

WEST VIRGINIA SLUDGE APPLICATION PROGRAM

GOAL; RETURNING USEFUL PRODUCTS TO THE SOIL
placing authority and resources where the responsibility lies, locally.

- MORITORIUM ON LAND APPLICATION OF SLUDGE (TWO YEARS) Present demonstration programs can continue meeting in state needs and upgraded. Definition of program occurs during this time. Training and certification of haulers and appliers occurs.

- REFERENDUM ON ACCEPTING LAND APPLICATION IN A HOST COUNTY ('95) this should encourage local informed debate.

- ESTABLISHMENT OF LOCAL ADMINISTRATIVE BODY
  a good example; the local Solid Waste Authorities

- ESTABLISHMENT OF LOCAL WATCHDOG GROUP
  concerned people are responsible for the issues (within parameters they can close operation)

- DETERMINATION OF AREAS SUITABLE FOR LAND APPLICATION
  SWA, SCS and the Extension Service provided at a fee

- DETERMINATION OF ACCEPTABLE LOADING RATE LIMITS
  Land Grant University provided at a fee

- AGREEMENTS WITH LANDHOLDERS
  preliminary acceptance followed by firm contract with local administrative body

- REQUEST OF QUALIFICATIONS FROM HAULERS AND APPLIERS

- SLUDGE APPLICATION PLAN approved by state Board

- LOCAL BROKERING OF SERVICE FOR CONTRACT

  - REQUEST FOR BID FOR HAULERS AND APPLIERS

    - INDEPENDENT OF ASSESSMENT

    - PURCHASE OF BOND

  - PURCHASE OF LIABILITY INSURANCE

  - IMPLEMENTATION REFERENDUM
    [illegible]

Sycamore Landfill, Inc.
4301 Sycamore Ridge Road
Hurricane, West Virginia 25526

Telephone
304-562-2611

Fax
304-562-2358

June 21, 1993

West Virginia Division of
Environmental Protection
Office of Waste Management
Attn: Bill Rhinelander
1356 Hansford Street
Charleston, WV 25301

Dear Bill:

Enclosed please find our comments and suggested changes to the proposed Sewage Sludge Management Regulations Title 47, Series 38D. The following sections from the proposed regulations are of a concern to us; suggested changes and additions have been supplied:

3.2.1.f: It is our feeling that the land application of sewage sludge should be allowed up to the boundary of a facilities' property, so long as all surface water is directed back to the facility. These boundary areas are in need of sludge application, and to restrict them from such benefits would seem unnecessary if proper run-off procedures are followed.

3.2.1.i: Pertaining to the application of sewage sludge within an active landfill disposal cell, it is our belief that this requirement is too strict, since the final slopes of many landfills, as approved by the WVDEP, are steeper than 15%. We recommend that for sludge applications within active landfills some leeway be given based on site specific conditions and design.

3.3.1.d.C: We proposed that for any solid waste landfill facility which is in compliance with the solid waste regulations, and has an existing liner system either of clay or synthetic material, that this extra liner construction not be

required. This requirement would mean that a landfill operator would need to construct a liner system on top of their already existing liner, which would be excessively costly.

3.3.1.d.D: It is our feeling that if the processing of sewage sludge is done over a lined area, that the construction of a concrete pad would be unnecessary, so long as all leachate generated from the sludge is handled in accordance with the solid waste regulations as they pertain to leachate. If the installation of this concrete was intended to ensure ease of access and dumping, it would seem as though there are more cost effective ways to maintain access without the finality of 6" of poured concrete.

3.6.1: The 25% requirement would seem not to apply to the land application, or the processing of sewage sludge, because the sludge is never being comingled with the daily waste that is being disposed of. If the intent of this requirement was to limit total amounts of sludge to be handled at a landfill, then this item is already covered, as is seen in the inclusion of sludge in a facilities' monthly tonnage limitation. This requirement is also difficult to comply with due to the fact that the tonnage of waste and the tonnage of sludge coming into a facility on a daily basis vary, and cannot be estimated with any degree of certainty.

4.1.3: We feel that any solid waste landfill facility that is seeking a sewage sludge processing or land application permit, should be able to do so throught a minor permit modification, not a major modification

4.2.1.g: Regarding the requirement to provide data as to the levels of chemical constituents in the sludge, it does not seem practical to have the facility operator disclose this information, when it is the responsibility of the generators to certify to the processors that excessive levels of the listed constituents are not in their waste streams. Therefore we suggest that, as in the landfill minor permit modification process, the generators be responsible for certification of the quality of their waste.

4.2.2.b: Regarding disclosure statements: It is our feeling that if a facility is seeking a major modification of an existing solid waste landfill permit which the WVDEP has issued, and for which disclosure statements have already been submitted and approved, in an effort to save time in the

permitting process that the submission of the same disclosure statement not be required. This waiver could only apply if the principal owners and operators holding the existing permit were the same as for the proposed sewage sludge/land application permit being sought.

4.2.3.b: When is this information pertaining to nitrogen content to be determined, when the sludge is coming into the facility?, when it is land applied?, after it has been composted?, or when it leaves the facility for use at another location? How often will this need to be determined?

4.2.3.1: We feel that our customers, as sludge generators, have the right to maintain the privacy as to who their customers are. Many of the generators of sludge will not be willing to release such proprietary information about who their industrial users are. General information should be supplied by generators, but due to fierce competition, and the fact that any information submitted to the WVDEP becomes public record, this requirement may cause generators to use out of state facilities where such information is not requested or required.

5.1.1.b: What sampling parameters will be used and what detection limits will be set? Will this mirror the Federal 503 guidelines?

5.3.2: Operating solid waste landfill facilities should not be limited as to the amount of sludge that can be accepted or land applied, if the facility demonstrates the ability to properly handle, apply, and or process the amounts of sludge brought to the facility. In the instance of an operating landfill, many areas which have received the land application of sludge will probably be re-opened to achieve final and desired grades, while other areas that need to be matured to elevations are being landfilled. This means that an operating landfill has the ability to properly and effectively consume more sewer sludge than facilities such as farms or on strip mine reclamations, where the loading rate will be exceeded if multiple applications of sludge are made. Landfills are the exception to the rule because once the sludge is applied, allowed to sustain revegetation, and dries considerably, it in effect becomes a perfect cover material, which if removed from one area of the landfill to allow further placement of waste can be reutilized as intermediate type cover elsewhere. Then the area from which the dried sludge was removed can accept another application of the sludge to once again sustain revegetation.

6.3.3: Insert after the word "Fund", and before the word "except" the following:

provided that the fees established by 6.3.1 and 6.3.2 shall not apply to sewage sludge or material derived from sewage sludge which is disposed of in a solid waste landfill facility or land applied in or on a disposal cell in a solid waste landfill facility which has been issued a permit for the operation of a solid waste landfill facility pursuant to the provisions of chapter 20, Article 5F, Section 5.

These changes distinguish the difference between landfills and other disposal and processing facilities. Landfills already pay assessment fees and taxes for such things as environmental remediation, water resources control, and enforcement activities.

Appendix A: The frequency of monitoring proposed is excessive; this is due mainly to the extremely high cost of running analytical tests. Unless the water quality management board will pay for the analytical work, we propose the following:

Less than 290 tons per year- Analyze once every 12 months
290 to 1,500 tons per year- Analyze once every 6 months
1,500-15,000 tons per year- Analyze once per quarter (4 times per year)
15,000 or more tons per year- Analyze once per month (12 times per year)

These are all of the proposed changes that we have currently. We sincerely hope that these are taken into consideration when the final regulations are made. If you have any questions, or would like further clarification of any of these issues, please call.

Sincerely,
Sycamore Landfill, Inc.

David Newman
Operations Manager

LWV

LEAGUE OF WOMEN VOTERS OF WEST VIRGINIA

1127 MONTROSE DRIVE • SOUTH CHARLESTON, WV 25303 • TELEPHONE 304-744-8787

June 21, 1993

To: Division of Environmental Protection

Re: Proposed Sludge Regulations

The League of Women Voters of West Virginia wishes to make a few suggestions pertaining to the proposed sludge regulations.

Approval of sites for disposal should be contingent on not adversely affecting sites where endangered or threatened species are located. The federal standards refer to this requirement.

Where a Wellhead Protection Program is in place, an applicant for disposing sewage sludge should be required to confer and get approval from the committee in charge of the Wellhead Protection Program if the sludge is to be disposed of in the Wellhead area.

Are compost toilets covered in the definitions section? These could be either private or public. The disposal of the compost from these toilets should be regulated.

KL/HG

Karen Lukens, President

1127 Montrose Drive
South Charleston, WV 25303
744-8787

Helen Gibbins, Natural Resources
6128 Gideon Rd.
Huntington, WV 25705
736-3287

RECEIVED
JUN 28 1993
...n of Environmental Prote...
... of Waste ...

Brooke County Sanitary Landfill

RD# 2, Box 410
Colliers, WV 26035
Tele: (304) 748-0014
Fax: (304) 748-0005

"If It's Service, it's Us"

June 17, 1993

Mr. William Rheinlander
Information Representative
Department of Commerce, Labor and
Environmental Resources
Division of Environmental Protection
Office of Waste Management
1356 Hansford Street
Charleston, WV 25301

Dear Mr. Rheinlander:

The proposed sludge regulations offer the State of West Virginia the opportunity to develop a comprehensive program for the beneficial reuse of a waste. However certain sections of the proposed regulations are counter productive and will have an adverse impact on the beneficial reuse of municipal sludge and cost of waste water treatment.

The following sections need eliminated or changed:

a) 3.2.1.h and 4.2.3.n. restricting use to soils with a PH greater than 6.2. Normal Brooke County soil ranges from PH 5.2 to PH 7.2 and compost use should be permitted on soils with a PH of 5.0 or greater.

Compost and sludge contain considerable alkalinity which is beneficial to acidic soils. The concept that oxidation of sulfides and acid rain can over a long period of time neutralize the add alkalinity and return the soil to the original low PH has been proposed. The concern expressed is that the neutralization of the alkalinity causes the compost residual to ultimately be exposed to the original low soil PH condition with the potential for acid leachating of the heavy metals present in the compost or sludge.

This leachating of heavy metals from compost residuals is not possible at normal acid soil PH's of 5 or greater because the metals are oxidized and not soluble in measurable levels. The TCLP procedure uses a strong acid solution to extract soluble metal ions from a waste. Any material that passes the TCLP procedure is not going to leach metals at soil PH levels of 5 or greater.

This section of the regulation would prevent using compost on acid mine spoils that would greatly benefit from both the organic matter and alkalinity present in the compost or sludge.

b) 3.2.1.i. prohibits the use of sludge on slopes greater than 15%. Should change to read: Prohibit placement of sludge on slopes which would allow the sludge to flow. For example 40% solid sludge will be stable on a much steeper slope than 20% solid sludge.

c) 3.2.1.k. prohibits the use of sludge on less than 20" of soil over bedrock or an impervious pan. The environmental reason for this restriction is not apparent. These are generally the poorer quality soils that would most benefit from sludge or compost.

d) 3.2.1.l. prohibits the use of sludge on soil with a permeability of less than 0.6 inches/hour ($4.23X10^{-4}$ cm/sec) and greater than 6 inches/hour ($4.23X10^{-3}$ cm/sec). What possible logic could require a soil permeability restriction? A very high permeability that could allow nitrates to enter the ground water? This remote concern is addressed in the agronomic rate calculations. This section should be eliminated.

e) 3.3.1.d. Liner system is required in any area containing sludge or products in direct contact with the ground. Buildings and other work areas under roof need to be excluded from the liner requirements.

f) 3.3.1.d.D. Final surface shall consist of at least a six (6) inch slab of reinforced concrete with a leachate collection network.

Section 3.3.1.d.D. is an example of how inappropriate a specific method of accomplishing a goal is in regulations. The unstated purpose of this section is to provide a durable all weather work surface that protects the liner system and provides a method for leachate collection. The regulation should be changed to: "The final surface shall consist of an all weather durable working surface that fully protects the liner system (3.3.1.d.B.) and provides a means of collecting the leachate."

The claim by the West Virginia Department of Environmental Protection that there is no economic impact from the proposed regulation is not correct. There are considerable taxes and fees imposed by the regulations that will be paid by the citizens of West Virginia. Also without the above proposed changes, the cost of disposing sludge through land application and composting will be unnecessarily increased with no associated environmental benefits.

Since clean water is the goal of everyone and all water treatment processes generate sludge, any unnecessary cost imposed on the disposal of sludge will be an added financial burden on cleaning the waters of our state and country. These costs are ultimately paid by the citizens.

Thank you for this opportunity to comment on the proposed sludge regulations.

Sincerely,

David C. Brown, P. E.
Engineer Manager

DCB/jk

Tyler County Solid Waste Authority
P. O. Box 126
Middlebourne, WV 26149
June 22, 1993

Reference: Proposed Rule, Title 47, Series 38D,
"Sewage Sludge Management Regulations"

Office of Waste Management, DEP
Attn: Bill Rheinlander
1356 Hansford Street
Charleston, WV 25301

Dear Mr. Rheinlander:

General Comments -

Until last year the large volumes of sludge from New York and New Jersey were dumped in the ocean, now they have to find a new place for it. Unless it can be proved that the environment in New York and New Jersey is more fragile than in West Virginia, the West Virginia regulations must be equivalent to those of these states. Potentially huge quantities of sludge could be brought to West Virginia. These states and others that have responsibly handled large quantities of sludge, have rules built from experience. If West Virginia takes on these problems, the same rules are needed now.

There are no consequences for non-compliance; these are a must.

A sewage sludge processing facility should annually (in the summer time, on a Saturday) have a day when the public can inspect the facilities, ask questions, and receive answers. The owners, managers, and appropriate DEP representatives should be there.

The groundwater monitoring wells must be working and checked regularly.

The treated leachate must be monitored to prove statistically that it meets required standards.

The sludge should be brought to a ph of 6.2 before it is applied to the soil.

Specific Reference Comments -

3.1. Incorporates Federal regulations 40 CFR part 503 as in effect on the effective date of these rules. The 503 rules aren't that good. Perhaps a better way would be to use the best of them as part of these rules.

One would hope 503 rules would only get better; if these rules or any other rules are incorporated, they should apply as amended.

3.2.1.a. Delete , "unless the applicant can demonstrate to the Director that the land application will not cause runoff into streams or wetlands."

3.2.1.b. Amend to, "Land within 300 feet ..."

3.2.1.c. Amend to, "Land within 300 feet ..."

3.2.1.d. Amend to, "Land within 300 feet of an occupied dwelling."

3.2.1.f. Amend to, "Land within 200 feet of an adjacent owner's property line without written consent."

3.2.1.h. Amend to, "Land that has been tested and determined to have a ph of less than 6.5."

3.2.1.j. Amend to, "Land that has a seasonal high groundwater less than 5 feet from the surface."

4.2.1.g. Heavy metals, pathogens, toxins, vectors: These rules should define what tests are made, how often they are made, and what would keep it from being accepted at the facility.

4.2.2.e.J. There must be testing and reporting to show this is working. It must meet a standard.

5.1.1.f. Amend to, "Requirements to retain records for the facility for a minimum of thirty years."

Thank you.

Sincerely,

James D. Van Camp

James D. Van Camp
Vice-Chairman Tyler Co. SWA

"Out-of-State Garbage"

Why is it that "good," "just," "right," and "logic" seems to always give way to "greed," "injustice," "wrong," and "stupidity."? The pure indignity of the matter begs for "reasonable" resolution. "I'm going to take my garbage and dump it in your yard." "NO"! you emphatically say, "You can't do that, you are violating my property, my birthright, my ecology, and my natural resources. You must dispose of your own garbage in your own way and you cannot and will not violate my land."

Certainly, a reasonable dumper would agree with the dumpee and, in fact, personal property law would most likely support the dumpee's position and enforce the requirement that the dumper dump his trash elsewhere. Makes sense, seems reasonable--and the outcome described is supported by logic, justice, and good common sense.

Why is it then that when we elevate this illustration to the State level it becomes okay for one state to dump its garbage in another state. How can a citizen or a government official of West Virginia support the hills and valleys of this incredibly beautiful landscape being defiled by the trash and sludge of your sister states? Shame on you!

Of equal concern is the mentality of those in other states who think it's okay to dump one state's garbage in another state. Are the Pocono's of Pennsylvania more pristine than the hills of West Virginia? Let's haul garbage to the Pocono's, the Adirondack's, the Alleghenies, the Catskills . . . Let's defile Western Maryland, Southern New Jersey, the Berkshires of Massachusetts, the White's of New Hampshire and the Green's of Vermont . . . NO!, you say, . "you can't do that because you would violate the natural beauty, the ecological balance, and innumerable laws".

Ah, but I can in West Virginia.

Why is that? Interestingly, it is not the "Government" of any locality or state that is sending garbage to West Virginia. No, it is free enterprise that has turned West Virginia into the toilet bowl of the East. The

greedy Free Enterprise Set and stupid West Virginia politicians create a marriage made in heaven for the greedy Free Enterprise Set. The Free Enterprise Set is greedy because all they are about is making money. They charge municipalities in the congested Northeast corridor exorbitant fees to dispose of garbage and other waste (some of it hazardous). There is more waste created than can be disposed of at local facilities. What do they do? Well, they can build new facilities locally (at great expense, with stringent ecological requirements and high "tipping" fees) or they can haul the garbage and dump it elsewhere, someplace, say, where the "tipping" fees are peanuts, the ecological consequences are of no concern, and where I get little or no resistance from GOVERNMENT. Bingo! I'll dump my garbage in West Virginia. They (the State Government of West Virginia) welcome me, charge me very little, and have NO MECHANISM of SURVEILLANCE or AUDIT to monitor my compliance with any guidelines that might be in place. Can you imagine how the mind of the Free Enterprise Set must be boggled at the thought? Imagine, paying Wetzel County West Virginia 50 cents per ton (Yes, 50 cents per ton) to fill its landfill with garbage and other waste from other states. Just how stupid can the Government of West Virginia be to allow such an indignity?

If you're going to be the toilet for the Northeast, at least have the dignity and business acumen to be an EXPENSIVE toilet. Participate in the FREE ENTERPRISE SYSTEM. MAKE MONEY! GET YOUR SHARE! BE SMART! PLAY THE GAME! MATCH GREED WITH GREED!

Does anyone ever stop to think how the Free Enterprise Set can afford to BUY TRUCKS, HIRE DRIVERS, PAY SLICK LAWYERS, and DONATE significant sums of money to local charitable causes all in the name of dumping garbage in West Virginia instead of New York? Hello..o..o..o! There is a lot of money in garbage, and the Free Enterprise Set is growing RICH at the expense of the PEOPLE of West Virginia. WAKE UP West Virginians! Demand your share of the pie. Either get your share in an economic sense or PROTECT YOUR BIRTHRIGHT, YOUR ECOLOGY AND YOUR NATURAL BEAUTY. Do not allow yourselves to be had by those who care nothing about you or your State. Let every citizen be heard and let the message be loud and clear, "We will not be fooled by the Free Enterprise Set." Either our State gets RICH from your stinking garbage or you haul it BACK FROM WHENCE IT CAME.

Right, Justice, Common Sense, and Logic are on your side. Stupid politicians, slime lawyers, and greedy entrepreneurs are your foe. Good will always win out over evil.

Fight the fight now, before it's too late. Man can destroy in a decade what Mother Nature took millenniums to create. Do not allow the RAPE of West Virginia by the Free Enterprise Set go unchallenged. She's a beautiful state, West Virginia; a good State, and she deserves better than she's getting.

Remember the song, "The West Virginia Hills":

1. *We all have treasures*
   We call our own
   Mine are these hills
   I call my home
   Just let me live
   Till eternity
   in these hills
   God walks with me

2. *Yes, He walks these hills*
   These beautiful hills
   Where my soul is always free
   What a comfort to know
   You're never alone
   Cause God walks these hills
   With Me

Good luck and Godspeed,

Signed, Bob & Helen Burgess
RR 2 Box 21
New Martinsville, WV
26155

"A West Virginian At Heart"

CITY OF WHEELING

WHEELING, WEST VIRGINIA 26003

June 23, 1993

Division of Environmental Protection
Office of Waste Management
1356 Hansford Street
Charleston, WV 25301
Attn: Bill Rheinlander

Hand Delivered

RE: Comments on Sewage Sludge Management Regulations

Dear Mr. Rheinlander:

The proposed Sewage Sludge Management Regulations (Title 47, Series 38D) which are the subject of the public hearing, will have a dramatic impact on how Publicly Owned Treatment Works (POTW) operate in West Virginia. The City of Wheeling operates a wastewater treatment plant that produces approximately 8,000 tons of sewage sludge annually. Our current disposal method is to haul this waste to a licensed landfill and bury it. We believe this practice is not the best environmental solution for the disposition of this waste product in West Virginia, nor will it be the most economical for cities in the future as landfill tipping fees increase.

The City of Wheeling requested modifications to our landfill and NPDES permits which would allow us to develop a more economical and environmentally sound solution to our sludge disposal process. These permit modification requests were submitted prior to the legislative amendments to § 20-5F-2b of the West Virginia Code and the solutions were being designed to be consistent with, and meet all the requirements of Federal Regulations 40 CFR Part 503, which regulate sewage sludge.

Federal Regulation 40 CFR Part 503 recognizes and regulates different processing methods for sewage sludge and the disposition of the resultant product to insure environmentally sound and safe solutions to the problem. The regulations proposed by the Department of Environmental Protection appear to go beyond 40 CFR 503 in permit requirements for sewage sludge processing facilities and land application requirements. These extensions beyond the requirements of 503 will create extreme hardships on West Virginia communities attempting to resolve sludge handling problems consistent with the Federal EPA 503 regulations, and may eventually cause all sludge to be dumped into landfills.

The federal regulations recognize that there are better and more productive solutions than landfilling sewage sludge. Sewage sludge can be processed in a number of ways under the 503 regulations to end up with a very safe product for beneficial re-use. Once a processed product meets very rigid federal standards, it becomes safe for re-use in almost any environment for land application.

The federal regulations establishes two levels of sewage quality, Class A and Class B. Under the Part 503 regulation, fewer restrictions are imposed on the use of higher quality sludge (Class A.) In regard to land application, the federal regulations state *"A number of general requirements and management practices apply to sewage sludge that are land applied with the exception of 'Exceptional Quality' sewage sludge ..."* The 503 regulations states under Distributed and Marketed Products "... sewage sludge or material derived from sewage sludge that is considered suitable for distribution and marketing (D&M) for uses on lawns and home gardens, either in bulk or container form, must meet the Class A pathogen reduction requirements, a vector attraction reduction processing option, and the Pollutant Concentration limits (with the exception that sewage sludge which meets the pollutant Ceiling Concentrations, but no the Pollutant Concentration limits, can be sold in bags or other containers for use at sludge application rates prescribed on a label that are based on not exceeding the Annual Pollutant Loading Rates.) The Class A pathogen reduction requirements must be met at the time the bulk or containerized products are "sold or given away."

If sewage sludges are of "Exceptional Quality" - meet the Pollutant Concentration limits, Class A pathogen reduction requirements and a vector attraction reduction processing option - they are <u>usually exempt</u> to the general requirements and management practices applicable to land application practices.

The proposed West Virginia regulations do not seem to distinguish the categories of sludge between the Class A (Clean Sludge or Exceptional Quality) and Class B categories as do the Part 503 regulations. Nor do the West Virginia regulations provide incentives for West Virginia POTW's to produce Class A end products.

The fees associated with the regulation process again become a factor in the processing of sewage sludge to the Class A or 'Exceptional Quality' level, and should provide incentives for POTW's to produce a Class A product which is both beneficial to the producer and to the state. Anything less than a Class A or regulated Class B sewage sludge can be detrimental to the future of West Virginia environmentally.

The City of Wheeling hopes the Department of Environmental Protection will seriously consider the comments made at the public hearing and submitted in writing regarding the proposed regulations and make good constructive changes that will allow the City of Wheeling and other West Virginia POTW's to economically handle sludge disposal problems consistent with the environmentally sound solutions provided by 40 CFR Part 503.

I have attached to this letter a list of specific concerns with various sections of the proposed regulations, and would ask that these comments also be considered as part of the public record regarding the Title 47, Series 38D regulations.

Thank you for the opportunity to speak and submit comments regarding this very important issue for West Virginia.

Sincerely,

Jimmy E. Cumes
City Manager

Attachment

cc: Mayor Jack Lipphardt

City of Wheeling

Comments on proposed Series 38D Sewage Sludge Regulations.

2.13/2.14 - "Composting" should not be used as terminology. The terminology should reflect the new Federal 503 regulations. "P.F.R.P." or "E.Q.S." or "Class A" technologies are all terms that refer to a higher level of treatment.
This can include composting, Alkaline Pasteurization, or possibly pelletization. There are many other alternative technologies to composting, many are safer.
Does the definition of composting include N-Viro or do they recognize composting as an entirely different operation/process (which it is).
Similarly, "Composting Facility" means what? Can our operation be set up at another location in the same county and be considered part of the treatment plant or does it actually need to be connected. As P.F.R.P. treatment it could be argued that this was part of the wastewater treatment process.

2.25 - If a materials recovery facility does not include a composting facility, where would an N-Viro A.A.S.S.A.D. facility fall. Would it be considered a mixed waste processing facility?

2.33 - Sludge should be considered a recycled product after it has been subjected to an approved "Class A" treatment. At least with further restrictions (such as 50% solids content) this status should be attainable.

2.35 - How will incinerator ash be classified?

2.36 - This paragraph should include some of those technologies. "Alkaline Pasteurization" should be included. At this time there are only 8 In-Vessel composting facilities in operation in the country. There are over 30 Lime Pasteurization facilities.

2.44 - It does not appear that this article would allow lime sterilization to be performed, because when Lime Sterilization is wet it does give off offensive odors as does composted material. Alkaline Pasteurized material does not.

3.1 - Federal regulations set out a guideline for "Clean Sludge" or "E.Q.S." (exceptional quality sludge) with the intent to promote beneficial re-use. If the BIO-SOLIDS or products incorporating bio-solids are of a low enough contaminant level they are deemed safe enough for unrestricted sales. This will allow for the successful marketing of the final product. If the State of West Virginia would like to place more stringent requirements on these products, They might consider requiring a minimum of 50% dryness or a more restrictive fecal coliform count.

(3.1 con't) pH could also be a factor in this requirement. The N-Viro A.A.S.S.A.D. process is mentioned specifically in the E.P.A. 503 regulations as a E.Q.S. technology, where does West Virginia acknowledge this? (see E.P.A. 503 regulations attached).

3.2 thru 3.2.3. - These restrictions will eliminate the possibility of ever marketing sludge based products (even if generated locally) to the general public in the State of West Virginia. This is in direct opposition to the intent of the establishment of a "Clean Sludge" guideline. As this regulation is written, all technologies that seek to utilize the benefits of properly treated biosolids will fall under this restriction, regardless of the means by which the final product is produced or the final form that the product will take. Specifically:

3.2.1. This says "sludge will not be applied to land...". N-Viro Soil, or Alkaline Pasteurized Biosolids is a product and is not sludge.

3.2.1.e. - This will eliminate the possibility of the use of Alkaline Pasteurized Biosolids in Department of Transportation projects such as re-seeding after construction and for erosion control. This is one of the most exciting opportunities in the recycling of properly treated material.

3.2.1.g. - This restriction does not include any acceptable distance. If the run-off from the material is clean then this restriction would be unnecessary. There should at least be a table of acceptable distances and/or acceptable levels of contaminants in the runoff.

3.2.1.h. - This would eliminate the use of ALKALINE treated Biosolids on disturbed lands as a way of raising the pH. Such as around strip mines , construction sites and on reclamation projects. This seems to be intended for application of sludge that is acidic. It has been well documented that ALKALINE PASTEURIZED biosolids are an effective amendment product for raising the pH of lands like these. Even in one time applications.

3.2.1.i. - This would eliminate the use of these products for erosion control on slopes, a very appropriate use for some biosolids based products. This also has been documented.

3.2.1.k. - Again this would limit the use around strip mine areas (the areas in most need of soil amendment). N-Viro Soil, if blended with clay results in an acceptable topsoil material. It has a stable pH and exhibits the characteristics of soil.
Heavy Metals are bound in an insoluble metal hydroxide salt coating, much the same way as heavy metals present in any soil material. The contaminants are permanently bound (unless, as with native soils, they are heavily stressed with acid). N-Viro Soil has been used as landfill cover, structural/construction fill material, a soil amendment, ag-lime and fertilizer with no adverse affects to the environment.
Would this material (blended or unblended) qualify as soil that could be utilized to achieve this 20" requirement?
If so, then this restriction should not apply to land application of N-Viro Soil. (The U.S. E.P.A. has recognized Chemical Fixation as "the best demonstrated available technology to immobilize heavy metals".

(3.2.1.k. cont'd) Composting does nothing to immobilize heavy metals, in fact if the resulting compost is on the acidic side, heavy metals could continue to leach from this material indefinitely. Clearly the A.A.S.S.A.D. process deserves recognition above that of compost for land application for this reason.

3.2.1.1 - This seems overly restrictive and should have other parameters, such as depth of topsoil, clay or bedrock. In addition just as above, N-Viro Soil should be blended with this material to make a better product.

3.2.3. - These Dry Ton limits should not be so low for all circumstances. This may work for ag. application, but in strip mine reclamation applications and in some landfill cover or maintenance applications this could prevent the goal from being achieved. This should have additional parameters allowing certain quality material greater leeway.

3.3.1.a. - This makes no provision for clean runoff and does not define what level of contaminants are acceptable/unacceptable. In addition if the processing site is located at the landfill (which is already lined, with a leachate collection system, then this is redundant.

3.3.1.d through 3.3.1.d.D. - These restrictions could unnecessarily prevent the recycling of Biosolids in the State of West Virginia due to cost. Again "Clean Sludge" or E.Q.S. Biosolids should be treated differently than extremely contaminated "Class B" materials. These restrictions may be written for in-vessel composting. They are extremely restrictive and overly protective. The result will be increased costs that will cause clean re-usable Biosolids to be dumped in a landfill for disposal. Again, there should be exceptions for material that has been treated to a safer level or for material that may be "safe" before treatment.

3.3.1.d.b. - If the installation were on solid rock, would a clay liner still be required? Solid rock is certainly more impenetrable.

3.3.1.d.c. - What exactly defines a "Leachate detection zone?"

3.3.1.d.D. - A final surface should also have the option of being 8" of Dense Graded Aggregate (compacted) and 4" of Asphalt as an alternate to the 6" of concrete.

3.4.1. - The question again comes up - N-Viro Soil (or A.A.S.S.A.D. pasteurized Biosolids) is not sludge, and water that comes in contact with it should not have to be handled in any special manner. This has been repeatedly tested-and proven. This product can be stored in the open indefinitely.

3.6. thru 3.6.1. - This regulation does not take into account final product that may be used as landfill cover. Some Class A processes (like the N-Viro Process) result in a final product that is no more sewage sludge than gasoline is crude oil or wastewater is clean effluent.

(3.6 thru 3.6.1 cont'd) If this material were to be judged based on 25% of the total waste disposed of at the landfill, then once again an opportunity to recycle biosolids will have been lost. There should be restrictions on the suitability of Biosolids derived products as landfill cover (such as 50% dryness, compaction or permeability, pH, and vector attraction) this restriction is far to broad to be sensible.

4.1.3. This seems to say that the operation could be placed at the sewage treatment plant. Is this true?

4.1.5. - This paragraph should allow for variances of permits-by-rule at the discretion of the State.

4.2.1.g. - This should read (.....or final product)

4.2.1.h. - This is to restrictive for the sale of E.Q.S. material. This regulation will severely inhibit a marketing program for Class A or E.Q.S. products.

4.2.1.j. - This should read (....unless granted a variance by the State)

4.2.2. - Again, can the mixing operation for an A.A.S.S.A.D. facility be put at the wastewater treatment plant?

4.2.2.c.E and 4.2.2.c.F - These paragraphs should refer to "E.Q.S." or "P.F.R.P." or "Class A". There are other appropriate technologies and the word compost is not only a competitive advantage for compost system vendors, it is misleading.

4.2.2.c.H. - The N-Viro Process in Wheeling will use Fly Ash. This is not a "bulking agent". It is required for pH maintenance and for further drying. The definition of a bulking Agent should be clarified.

4.2.2.e.F thru 4.2.2.e.K - These regulations are written specifically for in-vessel composting systems. Not only do they fail to address other technologies they imply a preference from the State's perspective and are therefore unfair. They should be removed or amended appropriately.

4.2.3. - It is our understanding that under the Federal E.P.A.'s 503 regs. that P.F.R.P. processes such as the N-Viro A.A.S.S.A.D. do not require some of the regulations stated. In fact, N-Viro Soil is considered so safe that it is the only sludge based product available in the world that can offer Product Liability Insurance (through C.N.A. a national Underwriter). This at least demonstrates the level of safety that these products can achieve. (Please see attached 503 regulations, see note on page 8, 5th paragraph)

4.2.3.a. - If marketing a "Clean, E.Q.S., Class A" or other such treated final product this amount of information is unrealistic and will impede marketing efforts drastically.

4.2.3.c. - This is also overly restrictive. If the material qualifies as a clean material it is operationally impossible to provide this level of detail for every single end-use. These uses could be yards, maintenance on bare spots, construction sites etc. At the higher level of treatment Biosolids derived fertilizers, ag-limes, and soil amendment products are generally much "cleaner" than commercial fertilizers. Commercial products do not have this restriction and if the Biosolids derived products cannot compete on a cost and convenience basis, they will not be purchased and the recycling program will fail.

4.2.3.f and 4.2.3.g - Sometimes the owner of the property does not know this information. This is impractical!

4.2.3.i. - N-Viro Soil is not sludge!

4.2.3.n. This is another reason to establish a mechanism for higher application rates of E.Q.S. products. It has been repeated demonstrated that Alkaline Pasteurized Biosolids, for one, can improve the pH of acidic soils indefinitely after only one application. Carey Technologies has achieved this on soils with a pH as low as 2.3 with applications of 70 to 100 dry tons per acre. (relatively little considering the resulting vegetation and improvement of water quality- no additional applications have been required.

5.3 this whole section should exempt E.Q.S. products or at least set guidelines for cleaner or diluted materials.

5.3.4. - N-Viro Soil has been cleared by the 503's to be spread on food chain crops.

6.3.1 and 6.3.2 These fees should be reduced according to the level of treatment that the material has undergone. Land Applying Class B liquid is not the same as a farmer using a registered fertilizer made from Biosolids that have under gone treatment from a class A technology. The use of a fee system to support inspection and fund research is good, however these fees are excessive and could prevent recycling from taking place due to the competitive bidding process (it could always be cheaper to dispose of in the landfill). In addition by applying these fees "across the Board" the State is contributing to the removal of any incentive that a generator may have to seek a higher and safer level of treatment for his/her Biosolids. What exactly is a material derived from sewage sludge? This needs to be defined. Why do smaller operations subject to less treatment pay less than operations with pre-treatment requirements?

6.6.3. - Municipalities and Landfills should be able to make cover out of their own products--particularly if these products can be used without further permitting--according to the 503 regs. mentioned in this document.

Appendix A - Again these rates are excessive. Specifically the frequency of monitoring for 1,500 to 15,000 and over 15,000 dry ton facilities. It could be estimated that a facility generating over 15,000 dry tons per year would spend over $150,000 in testing alone. If these guidelines are not reduced it will contribute further to higher costs, again reducing the realistic opportunities to recycle this valuable (if properly handled) resource.

WETZEL COUNTY SOLID WASTE AUTHORITY
P.O. Box 192, Proctor, West Virginia 26055

Office of Waste Management, DEP
1356 Hansford Street
Charleston, WV 25301
Attention: Bill Rheinlander

June 16, 1993

Dear Mr. Rheinlander,

The Wetzel County Solid Waste Authority would like to submit the following comments regarding Title 47, Series 38D, "Sewage Sludge Management Regulations". While our authority recognizes the time constraints and the enormity of the task of promulgating these rules in a timely fashion, we also feel it is imperative that these rules and regulations reflect the intent and will of the legislature. They clearly do not.

In reviewing this document, we found so many gross inconsistencies not only between these rules and regulations and the intent of SB 288 but within the document itself that it was difficult to determine whether our recommendations should be to change specific passages or to start from scratch. We chose to offer specific comments as well as offer the strong suggestion that the writers of these rules and regulations go back to the drawing board and make the rule reflect the contents and intent of SB 288.

The Fiscal Note for a Proposed Rule states that there will be no fiscal change as a result of these rules and regulations. This statement is false. Up until the time the Office of Waste Management was transferred from the Division of Natural Resources to the Division of Environmental Protection, sewage sludge processed and placed at the Wetzel County Landfill was counted against the monthly tonnage and all applicable solid waste fees were applied.

After the transfer of the Office of Waste Management to the Division of Environmental Protection, sewage sludge processed and placed in the Wetzel County Landfill, with the exception of New Martinsville, Jefferson County Ohio, and Paden City, was exempt from all tipping fees and not counted against the monthly tonnage. There were many contracts either in the process of negotiation or already signed, but the one contract that was closely scrutinized was from Nassau County, New York. This single contract was for 108,000 tons of sewage sludge per year to come to Brooke and Wetzel counties. Until SB 288 was passed, Director Callaghan's policy of not counting sewage sludge composted at and placed in a solid waste facility was costing the state $1 million per year for the Nassau County contract

alone. It was costing the host county solid waste authorities $49,000 per year. Nassau County was the tip of the iceberg. We soon learned of a signed contract with Westchester County and proposed contracts with Jamaica, NY; Bergen County, NJ; to name a few.

These rules and regulations also impose fees upon local POTW systems for land application and remediation. These fees are substantially lower than landfilling. These rules and regulations would also require that extensive capital be spent to comply with stringent sludge containment requirements that could price small generators of sewage sludge out of the composting business. This entire provision is ignored under the fiscal note provision of B.1. Economic Impact on Political Subdivisions: No impact.

The Fiscal Note should give direct reference to the fees required to be collected by solid waste facilities processing sewage sludge that is required under 20-5F-2b(e). Using the figures from 1992, the fiscal note should include the programs that will benefit by resuming the policy of counting sewage sludge as solid waste when it is handled at a solid waste facility.

Our second specific objection is to 47-38D-1.5. where federal rules are incorporated by reference. One of the primary reasons other states are targeting West Virginia as a sludge depository is the lack of rules and regulations that are more stringent than 40-CFR-503. New York, New Jersey, Pennsylvania, Maryland, Ohio, Virginia and Kentucky are but a few states that have discovered the weakness in the EPA 503 rule and have established rules more stringent than current EPA guidelines. More importantly, there are specific portions of EPA 503 rule that are in direct contradiction to the mandate of West Virginia Code. These contradictions must be reconciled to reflect the legislative intent of West Virginia Code.

On page 2, section 2.8 of the proposed rule there is a definition of a "Class A Sewage Sludge Processing Facility". Since such a facility would be the same as a "Class A Facility", referred to in 2.7, we find the definition of a Class A Sewage Sludge Processing Facility to be redundant and respectfully request that it be removed from the definitions. Since sections 2.9 and 2.10 would also be classified as solid waste facilities, the definitions of Class B and C Sewage Sludge Processing Facilities would also be redundant. These two definitions should be eliminated as well.

On page 6, section 2.43 in the definition of "Source Separated Organic Materials", we would like to see the inclusion of the following language after the final word "septage." to be amended to "...septage, or wood waste that consists of treated lumber."

On Page 7, 47-38D-3 STANDARDS FOR USE, DISPOSAL AND PROCESSING OF SEWAGE SLUDGE starting with section 3.1 Incorporation of Federal Regulations; we must again vigorously object to the blind incorporation of 40 CFR part 503 rule. The 503 rule is not only in direct contradiction to the newly adopted SB288, but it is even weaker than existing rules for land application of sewage sludge currently administered under the Office of Water Resources, under the direction of Dr. Eli McCoy.

Section 3.2 also needs many changes. This section is also a watered down version of the current rule followed by Dr. McCoy. There are other more stringent models that would enhance the protection of West Virginians while protecting the on-going practice of small scale controlled land application of sewage sludge that has been occurring for years. The legislature intended to protect the current policy of 75% of the POTW's land applying sewage sludge with minimal impact. Our Authority supports the legislature's efforts to this end.

Our Authority suggest the following changes:

3.2.1.a. Should read, "Land that is frozen, snow-covered, or known to be flooded on a regular basis." Delete all subsequent language in this sub-section.

3.2.1.b. Amend to, "Land within 300 feet..."

3.2.1.c. Amend to, "Land within 1000 feet..."

3.2.1.d. Amend to, "Land within 1000 feet of an occupied dwelling or within 600 feet of an occupied dwelling with the signed consent of the owner of said dwelling.

3.2.1.e. Amend to, "Land within 50 feet of any public highway or road."

3.2.1.h. Amend to, "Land that has been tested and determined to have a pH of less than 6.5"

3.2.1.i. Amend to, "Land that has a slope greater than 6%."

3.2.1.j. Amend to, "Land that has a seasonal high groundwater table less than 5 feet from the surface."

3.2.2 refers solely to soil concentration limits referred to in the 503 rule. This is in direct contradiction to West Virginia Code 20-5F-2b(b)(6). The 503 language gives reference to the contaminants within the sludge applied without factoring in the pre-existing contaminants within the soil. 20-5F-2b(b)(6) specifically requires the DEP to do a statistical analysis of the pre-existing elements of the soil that will receive sludge.

It is the responsibility of the DEP to establish maximum loading limits and apply those limits based upon what already exists in the soil combined with the contaminants present in the sludge to be land applied. Should the combined total of contaminants within the soil and contaminants within the sludge exceed the maximum loading limits, land application at that site should be prohibited.

The Authority further recommends the following be added after 3.2.3., "3.2.4. No land within a solid waste

facility, but outside a landfill disposal cell, be allowed to accept the permanent application of so much sewage sludge as to exceed the agronomic rate or a rate of fifteen dry tons per acre per year, which ever is less." This language is lifted verbatim from the code and would prohibit the so called sludge dedication sites referred to in in 40 CFR section 503.

Section 3.3. SEWAGE SLUDGE PROCESSING FACILITY OPERATIONAL AND DESIGN REQUIREMENTS (beginning page 8)

3.3.1.c. Amend to, "The facility must not be operated or constructed within the one hundred year flood plain." Delete everything else.

In sections 3.3.1.d., including A.through E., our Authority supports these stringent specifications when they apply to large scale generators or importers, but when applied to small scale facilities, this yardstick seems inappropriate. While a household generates garbage that is collected in a container and that garbage generates lechate, the law doesn't require a home owner to build a miniature landfill. While construction and demolition landfills do require some environmental safeguards, they are not nearly as stringent as those that apply to solid waste landfills. By the same token, it is unfair to place small municipalities in the same playing field as major metropolitan areas. The environmental rule in West Virginia needs to incorporate the amount of sludge generated combined with the toxicity of any sludge generated or imported.

The Wetzel County Solid Waste Authority would support language that would adjust the environmental requirements according to the quantity and quality of sewage sludge generated. A good place to start would be to require sewage sludge processing facilities generating 500 tons per monnth or less to have an asphalt pad in lieu of the stringent liner requirements for larger facilities.

3.6. Amend to delete the final sentence, "Alternative sludge disposal methods can be utilized upon obtaining written approval from the chief." This gives the chief entirely too much latitude and exempts propsed disposal alternatives from public notification or comment.

47-38D-4 PERMITS REQUIRED

4.1.2. In order for this section to reflect the code, 20-5F-2b(12)(c), it should read as follows: "For those publicly owned treatment works (POTW) which produce sewage sludge and are regulated by the division pursuant to an NPDES permit required under article five-a of this chapter, a sewage sludge processing permit shall be a part of the existing water pollution control permit and shall include a sewage sludge management plan approved by the chief."

4.1.3. The Wetzel County Solid Waste Authority has many major problems with this section not only as it applies to Wetzel County but the impact it will have upon the entire state. Quite candidly, this sub-section creates wretched state policy.

The permit issued to the Wetzel County Landfill, permit #SW-1021-92 under E. Permit Conditions section 1. states "This facility has submitted the Module A (NPDES) Application....Incorporation of Module A into the Solid Waste Facility Permit is required and will constitute a "major modification" and all related regulatory requirements must be met thereunder.". Yet 4.1.3. states that "...a sewage sludge processing facility MODIFICATION WILL BE OBTAINED (emphasis ours) as a part of the existing solid waste permit and shall include a sewage sludge management plan.".

It treats a sludge processing facility as a minor modification. There are no provisions for public input, no requirement that such a drastic change in land use would have to comply with the county or regional solid waste authority's siting plan, no requirements of county or regional solid waste authority approval. Furthermore the language "will be obtained" nearly implies a mandate that the DEP grant a sludge processing facility modification to ANY permitted solid waste facility, be they a recycler, a transfer station or a landfill. The requirements for a permitted solid waste facility to receive a "sewage sludge processing modification" are less stringent than those required for POTWs under 20-5F-2b(12)(c). POTW's are required to receive a permit while permitted solid waste facilities are required by the proposed rule to only obtain a modification.

It is the opinion of the Wetzel County Solid Waste Authority that any permitted solid waste facility seeking to process sewage sludge should obtain a permit as required for POTW's, and that such a permit be subject to the provisions established within the local or regional solid waste authority's siting plan. If sewage sludge processing facilities are expressly or tentatively prohibited within the host county's plan, or the area proposed for sewage sludge processing has not been designated an acceptable area, the permitted facility must obtain approval from the regional or county solid waste authority before the DEP can issue the sewage sludge processing permit.

In the same manner POTWs are required to obtain an additional permit even though the volume of sewage and sludge remains constant, permitted solid waste facilities would be seeking a permit for a new activity upon a pre-existing site. They would still be bound by the tonnage limits and fees required in 20-5F-2b(12)(e). Obtaining a sewage sludge processing permit for a permitted solid waste facility should be treated as a MAJOR MODIFICATION to an existing solid waste facility permit and subject to the provisions of 3.18..

4.1.4. Amend after the words "Series 38..." by adding "and any and all Certificate of Need requirements as required by the Public Service Commission."

4.1.5. Should be amended to add provisions within the code that require public participation.

4.2. GENERAL, PROCESSING FACILITY, AND LAND APPLICATION PERMIT REQUIREMENTS.

4.2.1.i. Since the 503 rule is very weak in the area of quality control and this section references all of 40 CFR, Part 503, we recommend rewriting this entire section. This rewrite should include an analysis for heavy metals to include but not be limited to arsenic, cadmium, chromium, copper, lead, molybdenum, nickel and zinc and a testing for toxic and hazardous materials using toxic characterization and leaching property (TCLP) tests. Standards should also be established for refusing sludges that test too high for specific toxins or heavy metals.

4.2.2.a.A. Please amend to "A regional map, or maps (of appropriate scale that delineate SEWAGE SLUDGE PRODUCING AREA..." As this subsection reads now, a sewage sludge processing facility could simply locate every POTW sending sludge to their facility. This wouldn't reveal whether the POTW was receiving large quantities of waste water from industry or residents nor would it reveal the size of the population serviced. By amending the regional map to delineate the sewage sludge producing area, you will have a clearer picture of the types of customers feeding into any contributing POTW.

4.2.2.c.E. Please amend to include the following after the final word, "conditions;" to,"to include a landfill that will accept the unused product. Any finished compost may not be stored on site for a period of more than 120 days. After 120 days, any finished compost must be applied within accordance with these rules and regulations or landfilled;"

4.2.2.e.I. " The expected mass balance through the composting system;" should be deleted. This is the creation of a formula to anticipate the difference between the weight of uncomposted sewage sludge and the weight lost due to composting. We assume the purpose is to credit a solid waste facility for the compost that leaves the facility for land application purposes and exempt composted sludge leaving a solid waste facility from the fees required by 20-5F-2b(12)(e).

There are many problems with using such a blanket formula. All sludge is not equal. While our rules and regulations require sludge to be at least 20% solid by weight, the city of New Martinsville's sludge is over 50% solid by weight. If the formula used assumed that every ton of sludge processed was 20% solid by weight, it would take

five tons to equal one ton of sewage sludge subject to the tipping fees, while in many cases, the actual case would be two tons would equal one ton. The state would be losing $8.25 per ton for every ton that would slip through the cracks using this formula.

Furthermore, this formula assumes that all sludge will be composted effectively and the 80% water will be removed. Again, every miscalculation of this formula will result in a loss of revenues of $8.25 per ton to the state.

The only equitable way to compensate a solid waste facility for the compost that leaves the facility is to credit them for the actual weight that leaves the facility. Therefore, the Wetzel County Solid Waste Authority recommends the following replacement language for 4.2.2.e.1. "All applicable fees required by 20-5F-2b(12)(e) shall be paid as proscribed by this chapter on any sewage sludge entering a solid waste facility based on the actual weight of the sludge as it enters the facility. Any composted sewage sludge leaving the solid waste facility shall be weighed and the actual tonnage leaving the facility shall be deducted from the monthly tonnage and all fees as proscribed under 20-5F-2b(12)(e) shall be waived;". This language would specifically spell out your intent. It may be better placed in 47-38D-6 Fee Assessment, however we found no reference any place in these proposed rules and regulations that dealt with the fees mandated by 20-5F-2b(12)(e). Perhaps this language should be replacement language for 6.3.3.

4.2.3.n. Please amend "maintain the soil to a minimum pH of 6.5..." and include language for penalty assessments for non-compliance.

47-38D-5. GENERAL, PROCESSING FACILITY, AND LAND APPLICATION PERMIT REQUIREMENTS.

5.2.3. Kiln dust in many states is actually the ash from unregulated, unmonitored hazardous waste incinerators, since many cement kilns burn hazardous waste for fuel and have carved a neat little exemption for themselves under federal law. Our Authority would urge the prohibition of kiln dust from any sewage sludge processing facility, landfill, composting facility, or land application. If we do accept kiln dust, it should be treated as special waste and TCLP, heavy metal and most importantly PCB and dioxin testing should be done on any proposed acceptance of kiln dust. The most stringent standards we can find should be applied to kiln dust.

47-38D-6. Fee Assessment

6.1. Please amend "Any person required to obtain a solid was facility permit pursuant to these regulations" to "Any producer or importer of sewage sludge or product thereof

shall be subject to...". The purpose of this proposed amendment is to close any loophole that may exist in this proposed rule.

6.3.3. Please see our comments on 4.2.2.e.I. In addition, we object to the dedication of these fees solely to the Solid Waste Enforcement Fund. There are many other places these fees apply, specifically the 50 cents per ton to the host county solid waste authority not to mention the recyling fund the $1 per ton for the Solid Waste Management Board, the landfill closure fund to mention a few. The code, 20-5F-2b(12)(e), states that, "All Sewage sludge placed in, or upon, or used by a solid waste facility or processed or handled, pursuant to a permit issued by the division of environmental protection, shall be subject to the same tipping and other fees levied by this chapter on the disposal of solid waste..." Please note there is no codified dedication of fees solely to the Solid Waste Enforcement Fund. Furthermore, 6.3.3. ignores the inclusion of the optional host county fee that can be assessed.

A section that is missing from these regulations is 47-38D-7 Enforcement. There are absolutely no consequences under this rule for non-compliance. Our Authority suggests language be adopted to issue citations for non-compliance and place the offending generator or importer on a compliance schedule to remediate the violation. We further suggest if the violator doesn't come into compliance within the time frame required, fines be levied. We further suggest that language be included to authorize the director to revoke the permit of an importer or generator of sewage sludge that doesn't comply or repeatedly violate the provisions of Chapter 20 and these rules and regulation in regards to sewage sludge. Language that spells out the appeal process should be included in this section as well.

Another item that is absent from this proposed rule is any reference to the role of the Office of Water Resources. Our Authority would like to see a section of this proposed rule clearly defining the role of the Office of Water Resources. It is our understanding that Dr. McCoy's office currently oversees the land application of sewage sludge and the issuance of NPDES permits for POTWs. The specific roles of both the Office of Waste Management and the Office of Water Resources should be clearly spelled out in the proposed rule to avoid any future confusion.

The Wetzel County Solid Waste Authority would like to see these rules and regulations have as little impact as possible on local POTWs. In the drafting of the many versions of what is now known as SB 288, the intent of the legislature was consistently to draft language that would have minimal impact upon local POTWs and to simultaneously avoid any unconstitutional differential treatment of waste coming into West Virginia.

In codifying limits to the size of sewage sludge facilities and rates of land application of sewage sludge, the legislature was trying to protect the citizens of the state from being the recipients of vast quantities of sewage sludge. They accomplished this by requiring responsible land use policies be adopted in regards to sewage sludge.

The purpose of these lengthy and specific comments has been to ensure the legislative intent of SB 288 would remain intact. It is our sincere hope that you will amend your proposed rules and regulations to reflect West Virginia code, treat local POTW's gently, and protect West Virginians from becoming host to America's sludge pit.

Martha Huffman
Wetzel County Solid Waste Authority

Natural Resources
Defense Council

40 West 20th Street
New York, New York 10011
212 727-2700
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May 19, 1993

Part 503 Sewage Sludge Use and Disposal Rule
Comment Clerk
Water Docket MC-4101
Environmental Protection Agency
401 M Street, SW
Washington, D.C. 20460

Re: **Comments on Cadmium Standards under Final Rule, Standards for the Use or Disposal of Sewage Sludge (58 Federal Register 9248 et seq., February 18, 1993)**

To the Comment Clerk:

The Natural Resources Defense Council ("NRDC") and the Environmental Defense Fund ("EDF") submit these comments on the cadmium standards under the "Final Rule, Standards for the Use or Disposal of Sewage Sludge" (58 Federal Register 9248 et seq., February 18, 1993). The Preamble to the Final Rule provides that "EPA welcomes additional data and analyses related to [the cadmium] standard and will consider any such additional information received by the Agency within 90 days of publication of today's rule." (58 Federal Register 9276).

NRDC and EDF submitted joint comments on the "Proposed Rule, Standards for the Disposal of Sewage Sludge", on August 7, 1989, and has met with EPA representatives on numerous occasions to present our views on the final provisions of the Part 503 Rule.

NRDC and EDF are very concerned that the cadmium standards under the Final Rule for the cumulative application of sludges and for APL sludge do not meet the requirements of the Clean Water Act, Section 405(d)(2)(D) to "adequately protect

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public health and the environment from any reasonably anticipated adverse effects" of cadmium-polluted sludge. Therefore the cadmium limits should be revised to ensure adequate protection. We recommend that the standards be revised to provide an application limit of at most 21 mg/kg, and an APL limit of at most 21 mg/kg.

It should be noted that our proposed standards are consistent with a 1981 Interagency Policy Statement on Sludge Use on Land for the Production of Fruits and Vegetables. That Statement was a joint statement of EPA, the U.S. Department of Agriculture and the U.S. Food and Drug Administration. Given EPA's reversal on the proper cadmium standards, both the USDA and the FDA should be given full and ample opportunity to offer comments on the 39 mg/kg cadmium standards of the Final Part 503 Rule and EPA should be required to respond to their comments fully and adequately.

Revision of the Final Part 503 Rules according to comments received during this comment period should proceed expeditiously; at the very latest, revisions should be integrated in the Rule and the Rule fully promulgated by October 1, 1993 (allowing over four months for the revision process). Revision should not delay progress on Round II of the Part 503 Rule.

Our comments are:

1. **Cadmium Poses A Greater Risk When Applied to Acidic Soils Yet EPA Bases its Cadmium Limit Primarily on Data From High pH Soils**

EPA has set a cadmium limit of 39 mg/kg. That limit is based in part on data concerning cadmium uptakes where cadmium-polluted sludge was applied to largely high pH soils. However, cadmium uptake is greater, and cadmium poses a greater risk, in acidic soils.

EPA was presented with considerable information on the issue of cadmium uptake on acidic soils by representatives of the U.S. Department of Agriculture, and yet failed to take such information into account and lower its cadmium limits to conform with USDA proposals. Furthermore, EPA failed to include pH requirements in the Final Rule to ensure that the assumptions made in determining the 39 mg/kg limit (i.e., high pH soils) would prove true in actual land application of sludge under the Rule.

Acidic soils make up approximately half the agricultural lands in the United States. In the Northeast, an area where large-scale sludge application programs are being considered as the nine ex-ocean dumpers develop their long-term sludge management program, the soils are predominantly acidic.

Because of the greater risks of cadmium uptake in acidic soil, and because of the great acreage of acidic soils used by U.S. farmers, NRDC and EDF recommend that the

cadmium limit for land application and APL sludges be lowered to at most 21 mg/kg. Information presented by the USDA indicate that such a limit would provide adequate protection of public health and the environment from sludge applied on all soils.

2. **EPA Used A Geometric Mean to Determine Dietary Intake of Cadmium, Despite the Reality of Human Consumption**

The EPA calculated dietary uptake of cadmium utilizing geometric means of daily intakes. However, individuals eat the sum of cadmium in their diet over their lifetime (calculated by arithmetic means), not the geometric mean of daily intakes multiplied by the number of days exposed. Thus, the sum of actual intakes is likely to be greater than the geometric means summed across the days of exposure.

As the USDA has pointed out in comments to EPA, the use of arithmetic means results in a lower cadmium limit, consistent with our recommendation that the cadmium standards be changed to at most 21 mg/kg.

3. **EPA Underestimated the Total Risk to the Home Gardener**

In determining risk to the home gardener from cadmium-polluted sludge, the EPA failed to take into account that not only will the home gardener consume his/her own products but also other products potentially grown with sludge, including grains and produce. Thus the rate of daily cadmium ingestion will in fact be higher than assumed by the EPA.

In order to provide adequate protection to the home gardener, we recommend that the sludge APL standard for cadmium be lowered to at most 21 mg/kg.

4. **The National Sewage Sludge Survey Indicated that a Cadmium Standard of 21 mg/kg is Currently Achievable**

The National Sewage Sludge Survey indicated that a significant amount of the sludge produced nationwide can currently meet a cadmium standard of 21 mg/kg. Furthermore, the survey's data indicates that feasible improvements in pollution prevention and industrial pretreatment could bring virtually all sludges to such a standard or lower.

NRDC and EDF are very concerned that EPA's cadmium standard will result in a backsliding of sludge quality and a reduced commitment to pollution prevention and pretreatment. Not only will the risks of land application of sludge therefore be unnecessarily (and unreasonably) increased, but it is likely that effluent quality from sewage treatment plants will degenerate, resulting in degradation of receiving water quality.

The 1987 amendments to the Clean Water Act, including both the anti-backsliding provisions and the 405(d) provisions, demonstrate Congress' clear intent that regulations governing sludge and water quality promulgated under the Clean Water Act should not result in a backsliding of sludge and effluent quality.

Given the current status of sludge quality in the United States, and the ability of all sludges to meet a cadmium limit of at most 21 mg/kg, EPA should require no less in its rule.

5. **The Export of Grains Will Be Jeopardized by EPA's Cadmium Standards**

Despite repeated entreaties from USDA, EPA has refused to recognize the serious impact its cadmium standards will have on the ability of U.S. farmers to export agricultural products grown with sludge. Not only may farmers be subjected to increased and expensive testing/certification requirements when exporting grains, but those products will be rejected if grown with sludge conforming to EPA's standard of 39 mg/kg. According to the USDA, the economic losses associated with increased certification requirements and loss of overseas markets will be significant and potentially devastating for some farmers.

6. **The USDA May Come Out with Its Own, More Stringent, Cadmium Standards To Protect Farmers That Will Conflict with EPA's Standard and Undermine Public Confidence in Beneficial Use of Sludge and in EPA**

The USDA has raised serious issues to EPA concerning the cadmium standards for land application of sludge, including concerns over acidic soils, export grains, and the economic viability of farmers. Because EPA has not responded to those concerns, there is a possibility that USDA will issue its own guidance to farmers on sludge use, which will include more stringent cadmium standards.

If the USDA comes out with its own standards, a message will be sent that EPA cannot ensure adequate protection of public health and the environment, and public confidence in EPA and in the Part 503 Rule for Sludge Use and Disposal will be undermined. NRDC and EDF urge EPA to work with USDA in resolving the issues of concern: both agencies have a responsibility to coordinate and harmonize their activities to send a clear meassage to the regulated community and to the public about the benefits of sludge reuse.

We recommend that in order to address the issues identified by USDA, EPA revise its cadmium standards to at most 21 mg/kg for land application and 21 mg/kg for APL sludges.

7. **The Opinion of the Food and Drug Administration Should Be Solicited on the Appropriate Standards for Cadmium**

It has come to the attention of NRDC and EDF that the FDA did not offered official comments on the proposed 503 Rule, including the proposed cadmium standards. We recommend that during the period set aside for review of comments received on the final cadmium standards, official comments of the FDA be solicited. In addition to clear jurisdictional interest over the matter of agricultural products grown with sludge, the FDA has expertise that could be very useful to the EPA in determining the adequacy of its cadmium standards.

Furthermore, the FDA was a signatory, along with EPA and USDA, to the 1981 Interagency Policy Statement on Sludge that recommended a 25 mg/kg standard for cadmium, along with EPA and USDA. Given the dramatic reversal of EPA on the appropriate standard for cadmium, the FDA must be fully briefed on EPA's reasoning and given an opportunity to offer official comments on the 39 mg/kg standard.

Thank you for this opportunity to offer comments on the cadmium standards in the Final Part 503 Rule. We look forward to working with you further on this and other issues presented under the Part 503 Rule.

Sincerely,

Nina Sankovitch
Senior Project Attorney
Natural Resources Defense Council

Sarah Clark /nms

Sarah Clark
Senior Scientist
Environmental Defense Fund

DEPARTMENT OF COMMERCE, LABOR & ENVIRONMENTAL RESOURCES
DIVISION OF ENVIRONMENTAL PROTECTION
1356 Hansford Street
Charleston, WV 25301-1401

Gaston Caperton
Governor

John M. Ranson
Cabinet Secretary

David C. Callaghan
Director

Ann A. Spaner
Deputy Director

June 25, 1993

MEMO TO: Ann Spaner, Eli McCoy, Bill Brannon and Clifton Browning

FROM: Bill Rheinlander BR

SUBJECT: Sewage Sludge Comments

Enclosed is a complete copy of the sewage sludge regulation comments we received during the recent 30-day comment period.

Enclosures

January 22, 1993

Note to: Carol Browner, Administrator

From: Richard Guimond, Acting Assistant Administrator,
Office of Solid Waste and Emergency Response

Subject: WTI Incinerator Issues

BACKGROUND: This note is to bring you up to date on the activities we have underway to evaluate the issues relative to the Waste Technologies Incorporated (WTI) incinerator in Ohio. This incinerator has obtained all of the necessary permits to conduct a trial burn. However, strong opposition from local citizen groups has led to a court hearing (which was to have been today but has been postponed until February 8) on whether a temporary restraining order should be imposed to prevent operation of the facility. WTI has verbally agreed not to commence the trial burn or limited commercial operation until after the hearing.

ISSUES: The immediate issue is whether the WTI risk assessment prepared by EPA is adequate. This assessment, which by EPA policy is site-specific, showed that risks from the incinerator emissions (including emissions of dioxins) were within the range of risks historically considered acceptable by EPA. A longer term issue, which will require Agency-wide consultation, is how to devise a national policy regarding indirect exposure assessments for dioxin. This could have major implications for numerous EPA programs and could require a reevaluation of risks at many other sources of air emissions.

The risk assessment was prepared by the Region 5 office for the WTI facility. It focused primarily on risks associated with inhalation of the emissions, an approach which the Agency has historically used in evaluating air emissions. Region 5 concluded that indirect exposure routes (e.g., consumption of food raised in the area) were not likely to present significant additional risk based on a draft dioxin risk assessment for another combustion unit.

The Office of Research and Development (ORD) has a draft document, "Estimating Exposures to Dioxin-Like Compounds," which describes a methodology and provides an example of how indirect exposures, such as exposures from soil contamination and subsequent food chain contamination resulting from air emissions, can be evaluated.

Greenpeace used a specific example from this document to attempt to show that risks from consuming products from cattle raised near the incinerator can be 10,000 times greater than the risks from inhalation and are, therefore, unacceptable. The use of the example from the ORD report in the WTI situation is not appropriate, since the risks from air emission sources are very highly dependent on site-specific factors. However, a preliminary

assessment done by ORD does show that risks from beef and milk consumption can be 1,000 times higher than risks from inhalation near the WTI facility. It is important to note that, even using the worst-case indirect exposure analysis, the risks to the public during the trial burn period would be within what has been considered acceptable. The Greenpeace submittal also contains other analyses that show very high risks. However, both the Office of Solid Waste and Emergency Response (OSWER) and ORD agree that these analyses use extreme, unrealistic assumptions.

There are very significant implications associated with adopting risk assessment procedures based on indirect exposure routes for air emission sources. These analyses have a much greater degree of uncertainty because they involve a large number of exposure-related assumptions. If conservative assumptions are used for all exposure related parameters, risk estimates can be unrealistically high. The analyses of the WTI situation show that many air emission sources could be affected if EPA were to adopt the indirect exposure analysis procedures in assessing exposure risks.

ACTIVITIES UNDERWAY: My staff met with ORD on Friday, January 22 to discuss the analytical steps that must be undertaken in preparation for the upcoming District Court hearing. In addition, my staff is reviewing all of the risk assessment efforts related to WTI and the ORD report on dioxin exposures to ensure that any differences can be explained. Staff are also working with ORD to collect relevant data on dioxin emissions from different sources and on risk assessments which have been done on those sources. Finally, the Agency must address the court's question concerning why we need the trial burn data in order to prepare a more comprehensive risk assessment.

For the immediate future, we have scheduled a technical meeting on Monday, the 25th, which will include personnel from Region 5 to review all of the risk assessment issues. We will then hold a management level meeting on Tuesday, the 26th, to develop recommendations on how we should proceed.

We are also developing an in-depth briefing for you on the WTI issues. We will work with your staff to schedule the meeting. Please let me know if you have any questions or need any other information.

cc: Linda Fisher
Dick Morgenstern
Mike Vandenbergh
Loretta Ucelli
Diane Regas

BIO GRO SYSTEMS

Sludge Management • Specializing in Beneficial Use

June 21, 1993

Mr. Bill Rheinlander
Division of Environmental Protection
Office of Waste Management
1356 Hansford Street
Charleston, WV 25301

Re: Proposed Sewage Sludge Management Regulations (Title 47, Series 38D)

Dear Mr. Rheinlander:

Bio Gro Systems, Inc. operates biosolids land application projects throughout the United States. Our experience includes permitting land application sites, transporting and land applying biosolids on agricultural land and reclamation sites, managing field operations, and performing monitoring and reporting for land application programs. We also have experience permitting and operating biosolids processing facilities and then marketing and distributing the end products.

We offer the following comments on the proposed Sewage Sludge Management Regulations:

47-38D-2 Definitions

2.21 For clarity purposes, the definition of "Importer" should be revised to read "means any person bringing in or receiving sewage sludge from any source outside the State of West Virginia for the purpose of processing."

2.44 "Stabilization" - This term should be deleted from the proposed regulations since 40 CFR Part 503 does not specifically address stabilization but rather lists pathogen and vector attraction reduction requirements. Also biosolids can be stabilized by other methods than the decomposition of organic matter (e.g., lime stabilization).

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Bio Gro Systems, Inc. • 180 Admiral Cochrane Drive • Suite 305 • Annapolis, Maryland 21401 • (410) 224-0022 • Fax (410) 224-0152

3.2 Sewage Sludge Land Application Siting Restrictions and Location Standards

Overall Comment:

To be consistent with 40 CFR Part 503, this section should contain wording that these requirements do not apply to sewage sludges or products derived from sewage sludges which meet the pollutant concentrations in 503.13(b)(3), the Class A pathogen requirements in 503.32(a), and one of the vector attraction reduction requirements in 503.33(b)(1) through (b)(8). EPA's justification for not imposing these types of restrictions is outlined on page 9328 of the Part 503 Preamble which states:

"The rationale for not imposing the general requirements and management practices on bulk sewage sludge and sewage sludge sold or given away in a bag or other container for application to the land is that the sewage sludge that meets the three identified quality requirements is a valuable commercial product. Because of this, EPA concluded that the probability of improper application of the sewage sludge is low and the additional requirements are not necessary to protect public health and the environment. In addition, the Agency determined that over-application of the sewage sludge will not occur because over-application reduces crop yield, which nullifies the main reason to apply sewage sludge to the land in the first instance. The Agency concluded that when the sewage sludge meets the three quality requirements, it is a fertilizer material and should be treated similarly to other fertilizers."

The proposed rule offers no incentives for producers to improve their sludge quality and further reduce the pathogen content of their sludges.

3.2.1.a. This sentence should be amended to insert the words "of sludge" after the word "runoff" since runoff in itself may occur without the actual transport of sludge.

3.2.1.b. To be consistent with the federal regulations [503.14(b)] and simplify the number of standards being imposed, we suggest the buffer zone be changed to 33 feet (10 meters).

"Lakes" should be added to the list of surface water features. The language "or other collection points for surface water" is subject to wide interpretations and should be deleted from the regulations. Specific

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buffer zones for other features should be listed in the regulations. We suggest the following:

Intermittent streams/sediment and erosion control ponds - 25 ft.
Agricultural drainage ditches with adjoining land slopes $\leq$ 2% - 10 ft.
Agricultural drainage ditches with adjoining land slopes $\geq$ 2% - 25 ft.

3.2.1.f. This provision should be revised to read "Land within 100 feet of an adjacent property owner's property unless the adjoining landowner consents in writing to a reduction or waiver of this requirement." This is a common practice in many states as it helps reduce the area of a farmer's field which must be fertilized with other materials if the adjoining property owner does not object to application closer to their property line. The current provision would also negatively impact two adjoining farmers who are both having biosolids applied to their property.

3.2.1.g. This requirement is too broad. A specific buffer zone to sinkholes such as 50 feet as required by Virginia regulations should be established rather than totally prohibiting land application.

General Many states allow reductions in buffer zones if biosolids are injected or surface applied and incorporated the same operating day since these operations minimize the potential for runoff and address aesthetic concerns. For this reason we suggest the following wording be added to this section of the regulations: "The stated buffer zones to adjacent property boundaries, roadways, surface waters, and drainage ditches may be reduced by one-half (50%) for subsurface application (includes same day incorporation)."

To add flexibility to the regulations, the Department may also want to consider including the following language regarding buffer zones: "The Department has the authority to increase or decrease the stated buffer zones based on site specific features." For example, this would allow the use of biosolids to establish vegetation on highway construction or reconstruction projects.

3.2.1.h. This requirement should be revised to read "Land that has been tested and determined to have a pH of less than 5.5 unless the sludge which will be applied contains sufficient lime to raise the soil pH to a

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level of 5.5 or greater." 40 CFR Part 503 does not contain pH adjustment requirements because the metal loading limits are designed to be protective even under acid soil conditions. We support a minimum pH level of 5.5 because levels less than this is a poor agronomic practice.

3.2.1.i. This requirement should be revised to read "Land that has a slope greater than 15% except as otherwise approved by the Department" since slopes greater than 15% may be encountered on reclamation projects and sufficient sediment and erosion control measures are used to prevent movement of biosolids into surface waters.

3.2.1.j. This requirement should be revised to read "Land that has seasonal high groundwater table less than 2 feet from the surface at the time of application" to clarify that these sites can still be used for biosolids applications during suitable periods of the year. Fields which contain soils with seasonal high water table conditions are currently farmed and fertilized in the State and therefore these sites should not be prohibited from receiving biosolids applications.

3.2.1.l. These limits may be appropriate for designing septic tank drainfields but should not be applied to the land application of biosolids since these are significantly different management practices.

This requirement also should be deleted from the regulations since 1) biosolids must be applied at rates not to exceed the nitrogen requirement of the crop to be grown, 2) biosolids have soil conditioning properties which help improve the tilth of both light (sandy) soils and heavy (clayey) soils and 3) biosolids are an organic (slow release) fertilizer. The state does not restrict farmers from farming these soils with commercial fertilizers and animal manures and therefore should not single out biosolids from being applied to these soils especially in light of the beneficial properties of this material. At a minimum, case-by-case approval of these sites should be allowed.

3.3.1.d.A. A provision to allow other types of liners (i.e., synthetic liners) should be included.

3.3.1.d.C. This requirement should be deleted since the design already provides sufficient protection through a concrete surface with a leachate collection network and a liner beneath the concrete.

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4.2.1.g. This requirement should be reworded to read "The content of heavy metals and pathogens as required by 40 CFR Part 503." This wording will define to the applicant the specific metals and pathogens which must be tested. Vectors should be deleted from this requirement since biosolids may attract vectors but they do not contain vectors. Other toxins would be covered under federal waste regulations and PCB regulations.

4.2.1.j. This requirement should be removed from this section (4.2.1.) and moved under section 4.2.2. since these requirements do not apply to land application sites.

4.2.2.b. Since a copy of these requirements were not included with the proposed rule, Bio Gro cannot provide comments on their applicability at this time.

4.2.3. Land Application Permit Requirements

Overall Comment:

To be consistent with 40 CFR Part 503, this section should contain wording that items a., c. through g., i., j., and n. do not apply to sewage sludges or products derived from sewage sludges which meet the pollutant concentrations in 503.13(b)(3), the Class A pathogen requirements in 503.32(a), and one of the vector attraction reduction requirements in 503.33(b)(1) through (b)(8). The reasons these restrictions should not apply were discussed earlier in our comments (see 3.2 Overall Comment).

4.2.3.d. An agreement between the preparer of the sewage sludge and the landowner should not be required unless the preparer is also the land applier. Individual agreements should be required between the preparer and the land applier and between the land applier and the landowner since these are the parties which have direct contact with each other. The sludge preparers responsibilities are clearly outlined by Federal law and do not need to be documented in writing with a third party (the landowner).

4.2.3.e. The requirement to describe "future" uses of the land application site should be deleted from the proposed regulations. "Future uses" of land are often unknown and the landowner will already be signing an agreement with the sludge applier which outlines his/her responsibilities to comply with access and cropping restrictions if biosolids undergoing Class B pathogen reduction are applied.

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4.2.3.g. This requirement should be dropped from the proposed regulations since past fertilizer applications only have relevance just prior to the growing season when the biosolids will be applied. In most cases, the information will be obsolete by the time the permit application is approved and the biosolids application is scheduled into the farmer's existing operation.

4.2.3.n. This requirement should be deleted from the proposed regulations. As noted in our comments above, 40 CFR Part 503 does not require pH adjustment prior to biosolids application or pH maintenance following biosolids applications. The cumulative metal loading limits required by the 503 Regulations are designed to protect human health, animal health and the environment even under acid soil conditions. In addition, biosolids applied metals have been shown to be less available over time. Although unnecessary, if any type of pH requirement is included in the state regulations, it should be only at the time the biosolids are applied which is the time when they are most likely to be available.

47-38D-5 General, Processing Facility, and Land Application Permit Requirements

5.1.1.a. The word "vectors" should be deleted since vectors are not contained in sewage sludge. Vectors should only be used in the context of vector attraction reduction requirements.

5.1.1.b. The frequency requirement for biosolids analyses should be no greater than monthly unless screening data shows a biosolids quality problem. The proposed regulations should also have a provision for decreasing the monitoring frequency down to the 503 requirements after the biosolids have been monitored for two years at the State required frequency.

47-38D-6 Fee Assessment

6.1. The words "and to cover the costs of future environmental remediation" should be deleted from the proposed regulations since it suggests future environmental remediation is likely or certain. On the contrary, Bio Gro has been unable to determine any environmental remediation problems which have been caused by regulated sewage sludge land application projects. The proposed regulations provide for environmental protection through biosolids testing and

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required field management practices. The federal regulations also include "Duty to mitigate" requirements which place the responsibility for remediation on the responsible party rather than the State.

6.2 The proposed regulations should clearly state that the funds will be used exclusively for the sewage sludge program.

6.3.1. For reasons mentioned in 6.1. above, this requirement should be deleted from the regulations.

6.3.2. The fee system should be established based on an evaluation of the anticipated costs of managing the sewage sludge program. Any funds not used should be set aside to pay for unanticipated costs and/or research to improve the sewage sludge program in the state. Finally, the fee system should be based on dry tons rather than wet tons to be equitable to producers of liquid sludges (many of which will be small treatment plants with limited funds available for payment of such fees). As noted earlier, the dry ton fee should be based on a realistic estimate of the costs of managing the sewage sludge program.

General Comment

Bio Gro Systems suggests that the newly adopted term "biosolids" be substituted for the term "sludge" when new West Virginia rules are issued. Enclosed is a guidance statement from the Water Environment Federation on the use of the term biosolids.

Bio Gro Systems appreciates this opportunity to comment on the proposed West Virginia regulations. If you have any questions about these comments, please contact us at (410) 224-0022.

Sincerely,

Jeffrey G. Faust
Research & Compliance Coor.

Bruce E. Bailey /kw
Bruce E. Bailey, CPSS
Project Development

kw:JGF078
cc: Jane Forste, Cal Miller, Bob Pepperman, Bio Gro Systems, Inc.

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Water Environment Federation
Formerly Water Pollution Control Federation

GUIDELINES FOR DETERMINING USE OF WORD "SLUDGE" OR "BIOSOLIDS"

The following guidelines, developed by the Biosolids Public Acceptance Task Force, are based on the biosolids policy approved by the WEF Executive Committee last January.

The Federation defines biosolids as "primarily organic solid product produced by wastewater treatment processes that can be beneficially recycled." The key words in this definition are "product," "wastewater treatment," and "beneficially recycled." The overall intent of the Biosolids Public Acceptance Task Force was to continue referring to untreated material (commonly known as raw sludge) as "sludge;" material that has been treated and made into a product that can be beneficially recycled would then be "biosolids."

A material is a biosolid if it meets U.S. Federal criteria for beneficial use. States can impose additional standards on biosolids.

If we look at a wastewater treatment process, anything within the treatment plant process leading up to the development of the product should be referred to as "sludge." Therefore, unless the material is a product, it would be characterized as sludge.

In a treatment plant, one might think of the following examples: Any pumps transferring untreated sludge would be referred to as "sludge pumps." A treatment plant process such as an activated sludge process would continue to be called "an activated sludge process" and produce sludge. An anaerobic digester would be treating sludge; however, the end product coming from the digestion process could be biosolids since it is a product that may be eligible for beneficial use. If dewatering follows such processing, it would be dewatering biosolids (e.g. a biosolids filter press or a biosolids centrifuge).

In taking the treated end product ready for beneficial use and putting it into a truck for distribution to land application, the truck would be referred to as a "biosolids truck." Likewise, any of the end uses would be considered application of biosolids such as agricultural application of biosolids or forest application of biosolids. One could even have the land filling of biosolids or incineration of biosolids.

When dealing with an untreated material (sludge) that is going through a composting operation, the operation would be a treatment facility handling sludge. However, the end product would be composted biosolids. If the composting was handling digested biosolids, it would be composting biosolids, and the end product would also be composted biosolids.

PRESIDENT	PRESIDENT-ELECT	VICE PRESIDENT	TREASURER	PAST PRESIDENT	EXECUTIVE DIRECTOR
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GASTON CAPERTON
GOVERNOR

State of West Virginia
Department of Tax and Revenue
TAX DIVISION
P. O. Box 2389
Charleston, WV 25328-2389

JAMES H. PAIGE III
SECRETARY

June 22, 1993

Office of Waste Management, DEP
Attn: Bill Rheinlander
1356 Hansford Street
Charleston, WV 25301

RE: **Comments of the Department of Tax and Revenue on the "Sewage Sludge Management Regulations" filed by the Division of Environmental Protection**

Dear Mr. Rheinlander:

This is in reference to the implementation of the recently enacted S. B. No. 288 and the regulations filed by your division pertaining to this legislation. This legislation establishes a program for the regulation and management of sewer sludge and expressly makes sewer sludge subject to the same tipping fees as the disposal of other solid waste.

Apparently there were issues raised during the legislative session concerning the taxation of the sewer sludge, such as whether the sludge would be taxed on a wet or dry basis, and whether a tax credit would be given for compost that is later removed from the landfill. The Department of Tax and Revenue was not part of these discussions. Therefore, we are unfamiliar with these issues or the options that are available, nor does the statute provide us with any particular guidance on these issues.

After meeting with Ann Spaner and Thomas Gillooly to discuss this legislation and the settlement of the landfill case, it was our understanding that these issues concerning the taxation of sewer sludge would be resolved in the regulations recently filed by your division. Upon review of the proposed regulations, we did not find any particular guidance on the treatment of sewer sludge other than it was to be taxed in a manner similar to other solid waste.

Since neither the statute or the regulations filed by your division provide any guidance on the issues raised by the taxation of sewer sludge, and our Department certainly has no expertise in determining such matters, we are not taking any position on how sewer sludge is to be taxed. As directed in the regulations, sewer sludge will be taxed in a manner similar to all other solid waste and no special treatment will be provided. This means that sewer

sludge will be taxed based on the tons crossing the scales and no credit will be allowed for the removal of any compost from the landfill. We do not feel that it is the responsibility of the Department of Tax and Revenue to allow any different treatment of sewer sludge unless directed to do so by the statute or regulations. It is our opinion that it is the responsibility of your Division to make decisions on such issues and to provide guidance to the Department of Tax and Revenue in the regulations.

If you wish to discuss this matter further, please contact Lydia S. McKee, General Counsel, Revenue Operations at 558-8730.

Sincerely,

Richard E. Boyle, Jr.
Assistant Secretary/
Assistant Tax Commissioner

cc: James H. Paige, III
Secretary
Department of Tax and Revenue

Thomas Gillooly
Department of Commerce, Labor and Environmental Resources

David Callaghan
Director
Division of Environmental Protection

Ann Spaner
Deputy Director
Division of Environmental Protection

TABLE 3: Summary of British Columbia Compost Quality Classifications.

COMPOST TYPE	SS	A	B	C	D	E
METAL CONCENTRATION CODE	1	1	1 OR 2	1, 2 OR 3	1, 2 OR 3	4
FEEDSTOCK	SS	MSW	MSW	MSW	YW SS MSW	MSW
MATURITY	Mature, Semi-mature	Mature	Mature, Semi-mature	Mature, Semi-mature	Fresh	N/A
FOREIGN MATTER	≤ 1%	≤ 1%	≤ 2%	≤ 10%	≤ 10%	N/A
WATER CONTENT	≤ 50%	≤ 50%	≤ 50%	≤ 50%	N/A	N/A

MSW: Municipal Solid Waste; SS: Source Separated Waste; YW: Yard Waste.

TABLE 4: Summary of British Columbia Compost Use Restrictions by Classification.

CLASSIFICATION	RESTRICTIONS
SS and A	Unrestricted Distribution
B	Non-Food Applications: parks, forested lands, forest and horticultural nursery industry
C	Non-Food Applications: parks, forested lands, forest and horticultural nursery industry
D	Land Reclamation Projects with Limited Potential for Public Contact
E	Disposed of in Landfill

PART 503 NUMERICAL CRITERIA FOR LAND APPLICATION

ELEMENT	CUMULATIVE LOAD (kg/ha)	APL (Clean Sludge) (mg/kg)	APLR (kg/ha/yr)
Arsenic	41	41	2.0
Cadmium	39	39	1.9
Chromium	3,000	1,200	150
Copper	1,500	1,500	75
Lead	300	300	15
Mercury	17	17	0.85
Molybdenum	18	18	0.90
Nickel	420	420	21
Selenium	100	36	5.0
Zinc	2,800	2,800	140

APL - Annual Pollutant Load
APLR - Annual Pollutant Loading Rate

Office of Waste Management

Attn. Bill Rheinlander
1356 Hansford Street
Charleston, W.V. 25301

Sewage Sludge regulations

I find the following general problems with theproposed regulations;

1. No use of identified sound scientific data used for classifing A,B,C facilities no status of sludge management in the state; total amount dry or wet ton, methods of disposal(% landfilled, incinerated, land applied, lime stablized, or composted) amount of suitable land available.

2. 4.2.3d Agreement, Vertical integration allows for abuses in the system, resulting in under reporting, subsitution of materials

3. No elimination of sludge from landfills. Yard waste will be banned. Sludge is more noxious. In a sealed environment of al landfill anarobic conditions drive the pH down, this creates a hazardous leachate and generates abundant methane. We should continue weaning sludge from landfills.

4. Overreliance on C.F.R. 503.12, no explainations, interpretations or decisions--- nothing to comment on.

5. Centralization of authority within D.E.P No local involvement or recourse. Authority, respondsibility, and the beare of consequences are all separate.

6. No evidence of integration with other composting regulations or guidelines.

thank you for your consideration,

Dr. John Hannon Martin,

Attached is an outline for a sludge management program from the Waste reduction task committee of the S.W.M.B. This was submitted for discussion purposes to D.E.P. Max Robertson, November, 1992.

WEST VIRGINIA SLUDGE APPLICATION PROGRAM

GOAL; RETURNING USEFUL PRODUCTS TO THE SOIL
placing authority and resources where the responsibility lies, locally.

- MORITORIUM ON LAND APPLICATION OF SLUDGE (TWO YEARS) Present demonstration programs can continue meeting in state needs and upgraded. Definition of program occurs during this time. Training and certification of haulers and appliers occurs.

- REFERENDUM ON ACCEPTING LAND APPLICATION IN A HOST COUNTY ('95) this should encourage local informed debate.

- ESTABLISHMENT OF LOCAL ADMINISTRATIVE BODY
  a good example; the local Solid Waste Authorities

- ESTABLISHMENT OF LOCAL WATCHDOG GROUP
  concerned people are responsible for the issues (within parameters they can close operation)

- DETERMINATION OF AREAS SUITABLE FOR LAND APPLICATION
  SWA, SCS and the Extension Service provided at a fee

- DETERMINATION OF ACCEPTABLE LOADING RATE LIMITS
  Land Grant University provided at a fee

- AGREEMENTS WITH LANDHOLDERS
  preliminary acceptance followed by firm contract with local administrative body

- REQUEST OF QUALIFICATIONS FROM HAULERS AND APPLIERS

- SLUDGE APPLICATION PLAN approved by state Board

- LOCAL BROKERING OF SERVICE FOR CONTRACT

  - REQUEST FOR BID FOR HAULERS AND APPLIERS

    - INDEPENDENT OF ASSESSMENT

    - PURCHASE OF BOND

  - PURCHASE OF LIABILITY INSURANCE

  - IMPLEMENTATION REFERENDUM
    [illegible]

Sycamore Landfill, Inc.
4301 Sycamore Ridge Road
Hurricane, West Virginia 25526

Telephone
304-562-2611

Fax
304-562-2358

June 21, 1993

West Virginia Division of
Environmental Protection
Office of Waste Management
Attn: Bill Rhinelander
1356 Hansford Street
Charleston, WV 25301

Dear Bill:

Enclosed please find our comments and suggested changes to the proposed Sewage Sludge Management Regulations Title 47, Series 38D. The following sections from the proposed regulations are of a concern to us; suggested changes and additions have been supplied:

3.2.1.f: It is our feeling that the land application of sewage sludge should be allowed up to the boundary of a facilities' property, so long as all surface water is directed back to the facility. These boundary areas are in need of sludge application, and to restrict them from such benefits would seem unnecessary if proper run-off procedures are followed.

3.2.1.i: Pertaining to the application of sewage sludge within an active landfill disposal cell, it is our belief that this requirement is too strict, since the final slopes of many landfills, as approved by the WVDEP, are steeper than 15%. We recommend that for sludge applications within active landfills some leeway be given based on site specific conditions and design.

3.3.1.d.C: We proposed that for any solid waste landfill facility which is in compliance with the solid waste regulations, and has an existing liner system either of clay or synthetic material, that this extra liner construction not be

required. This requirement would mean that a landfill operator would need to construct a liner system on top of their already existing liner, which would be excessively costly.

3.3.1.d.D: It is our feeling that if the processing of sewage sludge is done over a lined area, that the construction of a concrete pad would be unnecessary, so long as all leachate generated from the sludge is handled in accordance with the solid waste regulations as they pertain to leachate. If the installation of this concrete was intended to ensure ease of access and dumping, it would seem as though there are more cost effective ways to maintain access without the finality of 6" of poured concrete.

3.6.1: The 25% requirement would seem not to apply to the land application, or the processing of sewage sludge, because the sludge is never being comingled with the daily waste that is being disposed of. If the intent of this requirement was to limit total amounts of sludge to be handled at a landfill, then this item is already covered, as is seen in the inclusion of sludge in a facilities' monthly tonnage limitation. This requirement is also difficult to comply with due to the fact that the tonnage of waste and the tonnage of sludge coming into a facility on a daily basis vary, and cannot be estimated with any degree of certainty.

4.1.3: We feel that any solid waste landfill facility that is seeking a sewage sludge processing or land application permit, should be able to do so throught a minor permit modification, not a major modification

4.2.1.g: Regarding the requirement to provide data as to the levels of chemical constituents in the sludge, it does not seem practical to have the facility operator disclose this information, when it is the responsibility of the generators to certify to the processors that excessive levels of the listed constituents are not in their waste streams. Therefore we suggest that, as in the landfill minor permit modification process, the generators be responsible for certification of the quality of their waste.

4.2.2.b: Regarding disclosure statements: It is our feeling that if a facility is seeking a major modification of an existing solid waste landfill permit which the WVDEP has issued, and for which disclosure statements have already been submitted and approved, in an effort to save time in the

permitting process that the submission of the same disclosure statement not be required. This waiver could only apply if the principal owners and operators holding the existing permit were the same as for the proposed sewage sludge/land application permit being sought.

4.2.3.b: When is this information pertaining to nitrogen content to be determined, when the sludge is coming into the facility?, when it is land applied?, after it has been composted?, or when it leaves the facility for use at another location? How often will this need to be determined?

4.2.3.1: We feel that our customers, as sludge generators, have the right to maintain the privacy as to who their customers are. Many of the generators of sludge will not be willing to release such proprietary information about who their industrial users are. General information should be supplied by generators, but due to fierce competition, and the fact that any information submitted to the WVDEP becomes public record, this requirement may cause generators to use out of state facilities where such information is not requested or required.

5.1.1.b: What sampling parameters will be used and what detection limits will be set? Will this mirror the Federal 503 guidelines?

5.3.2: Operating solid waste landfill facilities should not be limited as to the amount of sludge that can be accepted or land applied, if the facility demonstrates the ability to properly handle, apply, and or process the amounts of sludge brought to the facility. In the instance of an operating landfill, many areas which have received the land application of sludge will probably be re-opened to achieve final and desired grades, while other areas that need to be matured to elevations are being landfilled. This means that an operating landfill has the ability to properly and effectively consume more sewer sludge than facilities such as farms or on strip mine reclamations, where the loading rate will be exceeded if multiple applications of sludge are made. Landfills are the exception to the rule because once the sludge is applied, allowed to sustain revegetation, and dries considerably, it in effect becomes a perfect cover material, which if removed from one area of the landfill to allow further placement of waste can be reutilized as intermediate type cover elsewhere. Then the area from which the dried sludge was removed can accept another application of the sludge to once again sustain revegetation.

6.3.3: Insert after the word "Fund", and before the word "except" the following:

provided that the fees established by 6.3.1 and 6.3.2 shall not apply to sewage sludge or material derived from sewage sludge which is disposed of in a solid waste landfill facility or land applied in or on a disposal cell in a solid waste landfill facility which has been issued a permit for the operation of a solid waste landfill facility pursuant to the provisions of chapter 20, Article 5F, Section 5.

These changes distinguish the difference between landfills and other disposal and processing facilities. Landfills already pay assessment fees and taxes for such things as environmental remediation, water resources control, and enforcement activities.

Appendix A: The frequency of monitoring proposed is excessive; this is due mainly to the extremely high cost of running analytical tests. Unless the water quality management board will pay for the analytical work, we propose the following:

Less than 290 tons per year- Analyze once every 12 months
290 to 1,500 tons per year- Analyze once every 6 months
1,500-15,000 tons per year- Analyze once per quarter (4 times per year)
15,000 or more tons per year- Analyze once per month (12 times per year)

These are all of the proposed changes that we have currently. We sincerely hope that these are taken into consideration when the final regulations are made. If you have any questions, or would like further clarification of any of these issues, please call.

Sincerely,
Sycamore Landfill, Inc.

David Newman
Operations Manager

LWV

LEAGUE OF WOMEN VOTERS OF WEST VIRGINIA

1127 MONTROSE DRIVE • SOUTH CHARLESTON, WV 25303 • TELEPHONE 304-744-8787

June 21, 1993

To: Division of Environmental Protection

Re: Proposed Sludge Regulations

The League of Women Voters of West Virginia wishes to make a few suggestions pertaining to the proposed sludge regulations.

Approval of sites for disposal should be contingent on not adversely affecting sites where endangered or threatened species are located. The federal standards refer to this requirement.

Where a Wellhead Protection Program is in place, an applicant for disposing sewage sludge should be required to confer and get approval from the committee in charge of the Wellhead Protection Program if the sludge is to be disposed of in the Wellhead area.

Are compost toilets covered in the definitions section? These could be either private or public. The disposal of the compost from these toilets should be regulated.

KL/HG

Karen Lukens, President

1127 Montrose Drive
South Charleston, WV 25303
744-8787

Helen Gibbins, Natural Resources
6128 Gideon Rd.
Huntington, WV 25705
736-3287

RECEIVED
JUN 28 1993
...n of Environmental Prote...
... of Waste ...

Brooke County Sanitary Landfill

RD# 2, Box 410
Colliers, WV 26035
Tele: (304) 748-0014
Fax: (304) 748-0005

"If It's Service, it's Us"

June 17, 1993

Mr. William Rheinlander
Information Representative
Department of Commerce, Labor and
Environmental Resources
Division of Environmental Protection
Office of Waste Management
1356 Hansford Street
Charleston, WV 25301

Dear Mr. Rheinlander:

The proposed sludge regulations offer the State of West Virginia the opportunity to develop a comprehensive program for the beneficial reuse of a waste. However certain sections of the proposed regulations are counter productive and will have an adverse impact on the beneficial reuse of municipal sludge and cost of waste water treatment.

The following sections need eliminated or changed:

a) 3.2.1.h and 4.2.3.n. restricting use to soils with a PH greater than 6.2. Normal Brooke County soil ranges from PH 5.2 to PH 7.2 and compost use should be permitted on soils with a PH of 5.0 or greater.

Compost and sludge contain considerable alkalinity which is beneficial to acidic soils. The concept that oxidation of sulfides and acid rain can over a long period of time neutralize the add alkalinity and return the soil to the original low PH has been proposed. The concern expressed is that the neutralization of the alkalinity causes the compost residual to ultimately be exposed to the original low soil PH condition with the potential for acid leachating of the heavy metals present in the compost or sludge.

This leachating of heavy metals from compost residuals is not possible at normal acid soil PH's of 5 or greater because the metals are oxidized and not soluble in measurable levels. The TCLP procedure uses a strong acid solution to extract soluble metal ions from a waste. Any material that passes the TCLP procedure is not going to leach metals at soil PH levels of 5 or greater.

This section of the regulation would prevent using compost on acid mine spoils that would greatly benefit from both the organic matter and alkalinity present in the compost or sludge.

b) 3.2.1.i. prohibits the use of sludge on slopes greater than 15%. Should change to read: Prohibit placement of sludge on slopes which would allow the sludge to flow. For example 40% solid sludge will be stable on a much steeper slope than 20% solid sludge.

c) 3.2.1.k. prohibits the use of sludge on less than 20" of soil over bedrock or an impervious pan. The environmental reason for this restriction is not apparent. These are generally the poorer quality soils that would most benefit from sludge or compost.

d) 3.2.1.l. prohibits the use of sludge on soil with a permeability of less than 0.6 inches/hour ($4.23X10^{-4}$ cm/sec) and greater than 6 inches/hour ($4.23X10^{-3}$ cm/sec). What possible logic could require a soil permeability restriction? A very high permeability that could allow nitrates to enter the ground water? This remote concern is addressed in the agronomic rate calculations. This section should be eliminated.

e) 3.3.1.d. Liner system is required in any area containing sludge or products in direct contact with the ground. Buildings and other work areas under roof need to be excluded from the liner requirements.

f) 3.3.1.d.D. Final surface shall consist of at least a six (6) inch slab of reinforced concrete with a leachate collection network.

Section 3.3.1.d.D. is an example of how inappropriate a specific method of accomplishing a goal is in regulations. The unstated purpose of this section is to provide a durable all weather work surface that protects the liner system and provides a method for leachate collection. The regulation should be changed to: "The final surface shall consist of an all weather durable working surface that fully protects the liner system (3.3.1.d.B.) and provides a means of collecting the leachate."

The claim by the West Virginia Department of Environmental Protection that there is no economic impact from the proposed regulation is not correct. There are considerable taxes and fees imposed by the regulations that will be paid by the citizens of West Virginia. Also without the above proposed changes, the cost of disposing sludge through land application and composting will be unnecessarily increased with no associated environmental benefits.

Since clean water is the goal of everyone and all water treatment processes generate sludge, any unnecessary cost imposed on the disposal of sludge will be an added financial burden on cleaning the waters of our state and country. These costs are ultimately paid by the citizens.

Thank you for this opportunity to comment on the proposed sludge regulations.

Sincerely,

David C. Brown, P. E.
Engineer Manager

DCB/jk

Tyler County Solid Waste Authority
P. O. Box 126
Middlebourne, WV 26149
June 22, 1993

Reference: Proposed Rule, Title 47, Series 38D,
"Sewage Sludge Management Regulations"

Office of Waste Management, DEP
Attn: Bill Rheinlander
1356 Hansford Street
Charleston, WV 25301

Dear Mr. Rheinlander:

General Comments -

Until last year the large volumes of sludge from New York and New Jersey were dumped in the ocean, now they have to find a new place for it. Unless it can be proved that the environment in New York and New Jersey is more fragile than in West Virginia, the West Virginia regulations must be equivalent to those of these states. Potentially huge quantities of sludge could be brought to West Virginia. These states and others that have responsibly handled large quantities of sludge, have rules built from experience. If West Virginia takes on these problems, the same rules are needed now.

There are no consequences for non-compliance; these are a must.

A sewage sludge processing facility should annually (in the summer time, on a Saturday) have a day when the public can inspect the facilities, ask questions, and receive answers. The owners, managers, and appropriate DEP representatives should be there.

The groundwater monitoring wells must be working and checked regularly.

The treated leachate must be monitored to prove statistically that it meets required standards.

The sludge should be brought to a ph of 6.2 before it is applied to the soil.

Specific Reference Comments -

3.1. Incorporates Federal regulations 40 CFR part 503 as in effect on the effective date of these rules. The 503 rules aren't that good. Perhaps a better way would be to use the best of them as part of these rules.

One would hope 503 rules would only get better; if these rules or any other rules are incorporated, they should apply as amended.

3.2.1.a. Delete , "unless the applicant can demonstrate to the Director that the land application will not cause runoff into streams or wetlands."

3.2.1.b. Amend to, "Land within 300 feet ..."

3.2.1.c. Amend to, "Land within 300 feet ..."

3.2.1.d. Amend to, "Land within 300 feet of an occupied dwelling."

3.2.1.f. Amend to, "Land within 200 feet of an adjacent owner's property line without written consent."

3.2.1.h. Amend to, "Land that has been tested and determined to have a ph of less than 6.5."

3.2.1.j. Amend to, "Land that has a seasonal high groundwater less than 5 feet from the surface."

4.2.1.g. Heavy metals, pathogens, toxins, vectors: These rules should define what tests are made, how often they are made, and what would keep it from being accepted at the facility.

4.2.2.e.J. There must be testing and reporting to show this is working. It must meet a standard.

5.1.1.f. Amend to, "Requirements to retain records for the facility for a minimum of thirty years."

Thank you.

Sincerely,

James D. Van Camp

James D. Van Camp
Vice-Chairman Tyler Co. SWA

"Out-of-State Garbage"

Why is it that "good," "just," "right," and "logic" seems to always give way to "greed," "injustice," "wrong," and "stupidity."? The pure indignity of the matter begs for "reasonable" resolution. "I'm going to take my garbage and dump it in your yard." "NO"! you emphatically say, "You can't do that, you are violating my property, my birthright, my ecology, and my natural resources. You must dispose of your own garbage in your own way and you cannot and will not violate my land."

Certainly, a reasonable dumper would agree with the dumpee and, in fact, personal property law would most likely support the dumpee's position and enforce the requirement that the dumper dump his trash elsewhere. Makes sense, seems reasonable--and the outcome described is supported by logic, justice, and good common sense.

Why is it then that when we elevate this illustration to the State level it becomes okay for one state to dump its garbage in another state. How can a citizen or a government official of West Virginia support the hills and valleys of this incredibly beautiful landscape being defiled by the trash and sludge of your sister states? Shame on you!

Of equal concern is the mentality of those in other states who think it's okay to dump one state's garbage in another state. Are the Pocono's of Pennsylvania more pristine than the hills of West Virginia? Let's haul garbage to the Pocono's, the Adirondack's, the Alleghenies, the Catskills . . . Let's defile Western Maryland, Southern New Jersey, the Berkshires of Massachusetts, the White's of New Hampshire and the Green's of Vermont . . . NO!, you say, . "you can't do that because you would violate the natural beauty, the ecological balance, and innumerable laws".

Ah, but I can in West Virginia.

Why is that? Interestingly, it is not the "Government" of any locality or state that is sending garbage to West Virginia. No, it is free enterprise that has turned West Virginia into the toilet bowl of the East. The

greedy Free Enterprise Set and stupid West Virginia politicians create a marriage made in heaven for the greedy Free Enterprise Set. The Free Enterprise Set is greedy because all they are about is making money. They charge municipalities in the congested Northeast corridor exorbitant fees to dispose of garbage and other waste (some of it hazardous). There is more waste created than can be disposed of at local facilities. What do they do? Well, they can build new facilities locally (at great expense, with stringent ecological requirements and high "tipping" fees) or they can haul the garbage and dump it elsewhere, someplace, say, where the "tipping" fees are peanuts, the ecological consequences are of no concern, and where I get little or no resistance from GOVERNMENT. Bingo! I'll dump my garbage in West Virginia. They (the State Government of West Virginia) welcome me, charge me very little, and have NO MECHANISM of SURVEILLANCE or AUDIT to monitor my compliance with any guidelines that might be in place. Can you imagine how the mind of the Free Enterprise Set must be boggled at the thought? Imagine, paying Wetzel County West Virginia 50 cents per ton (Yes, 50 cents per ton) to fill its landfill with garbage and other waste from other states. Just how stupid can the Government of West Virginia be to allow such an indignity?

If you're going to be the toilet for the Northeast, at least have the dignity and business acumen to be an EXPENSIVE toilet. Participate in the FREE ENTERPRISE SYSTEM. MAKE MONEY! GET YOUR SHARE! BE SMART! PLAY THE GAME! MATCH GREED WITH GREED!

Does anyone ever stop to think how the Free Enterprise Set can afford to BUY TRUCKS, HIRE DRIVERS, PAY SLICK LAWYERS, and DONATE significant sums of money to local charitable causes all in the name of dumping garbage in West Virginia instead of New York? Hello..o..o..o! There is a lot of money in garbage, and the Free Enterprise Set is growing RICH at the expense of the PEOPLE of West Virginia. WAKE UP West Virginians! Demand your share of the pie. Either get your share in an economic sense or PROTECT YOUR BIRTHRIGHT, YOUR ECOLOGY AND YOUR NATURAL BEAUTY. Do not allow yourselves to be had by those who care nothing about you or your State. Let every citizen be heard and let the message be loud and clear, "We will not be fooled by the Free Enterprise Set." Either our State gets RICH from your stinking garbage or you haul it BACK FROM WHENCE IT CAME.

Right, Justice, Common Sense, and Logic are on your side. Stupid politicians, slime lawyers, and greedy entrepreneurs are your foe. Good will always win out over evil.

Fight the fight now, before it's too late. Man can destroy in a decade what Mother Nature took millenniums to create. Do not allow the RAPE of West Virginia by the Free Enterprise Set go unchallenged. She's a beautiful state, West Virginia; a good State, and she deserves better than she's getting.

Remember the song, "The West Virginia Hills":

1. *We all have treasures*
   We call our own
   Mine are these hills
   I call my home
   Just let me live
   Till eternity
   in these hills
   God walks with me

2. *Yes, He walks these hills*
   These beautiful hills
   Where my soul is always free
   What a comfort to know
   You're never alone
   Cause God walks these hills
   With Me

Good luck and Godspeed,

Signed, Bob & Helen Burgess
RR 2 Box 21
New Martinsville, WV
26155

"A West Virginian At Heart"

CITY OF WHEELING

WHEELING, WEST VIRGINIA 26003

June 23, 1993

Division of Environmental Protection
Office of Waste Management
1356 Hansford Street
Charleston, WV 25301
Attn: Bill Rheinlander

Hand Delivered

RE: Comments on Sewage Sludge Management Regulations

Dear Mr. Rheinlander:

The proposed Sewage Sludge Management Regulations (Title 47, Series 38D) which are the subject of the public hearing, will have a dramatic impact on how Publicly Owned Treatment Works (POTW) operate in West Virginia. The City of Wheeling operates a wastewater treatment plant that produces approximately 8,000 tons of sewage sludge annually. Our current disposal method is to haul this waste to a licensed landfill and bury it. We believe this practice is not the best environmental solution for the disposition of this waste product in West Virginia, nor will it be the most economical for cities in the future as landfill tipping fees increase.

The City of Wheeling requested modifications to our landfill and NPDES permits which would allow us to develop a more economical and environmentally sound solution to our sludge disposal process. These permit modification requests were submitted prior to the legislative amendments to § 20-5F-2b of the West Virginia Code and the solutions were being designed to be consistent with, and meet all the requirements of Federal Regulations 40 CFR Part 503, which regulate sewage sludge.

Federal Regulation 40 CFR Part 503 recognizes and regulates different processing methods for sewage sludge and the disposition of the resultant product to insure environmentally sound and safe solutions to the problem. The regulations proposed by the Department of Environmental Protection appear to go beyond 40 CFR 503 in permit requirements for sewage sludge processing facilities and land application requirements. These extensions beyond the requirements of 503 will create extreme hardships on West Virginia communities attempting to resolve sludge handling problems consistent with the Federal EPA 503 regulations, and may eventually cause all sludge to be dumped into landfills.

The federal regulations recognize that there are better and more productive solutions than landfilling sewage sludge. Sewage sludge can be processed in a number of ways under the 503 regulations to end up with a very safe product for beneficial re-use. Once a processed product meets very rigid federal standards, it becomes safe for re-use in almost any environment for land application.

The federal regulations establishes two levels of sewage quality, Class A and Class B. Under the Part 503 regulation, fewer restrictions are imposed on the use of higher quality sludge (Class A.) In regard to land application, the federal regulations state *"A number of general requirements and management practices apply to sewage sludge that are land applied with the exception of 'Exceptional Quality' sewage sludge ..."* The 503 regulations states under Distributed and Marketed Products "... sewage sludge or material derived from sewage sludge that is considered suitable for distribution and marketing (D&M) for uses on lawns and home gardens, either in bulk or container form, must meet the Class A pathogen reduction requirements, a vector attraction reduction processing option, and the Pollutant Concentration limits (with the exception that sewage sludge which meets the pollutant Ceiling Concentrations, but no the Pollutant Concentration limits, can be sold in bags or other containers for use at sludge application rates prescribed on a label that are based on not exceeding the Annual Pollutant Loading Rates.) The Class A pathogen reduction requirements must be met at the time the bulk or containerized products are "sold or given away."

If sewage sludges are of "Exceptional Quality" - meet the Pollutant Concentration limits, Class A pathogen reduction requirements and a vector attraction reduction processing option - they are <u>usually exempt</u> to the general requirements and management practices applicable to land application practices.

The proposed West Virginia regulations do not seem to distinguish the categories of sludge between the Class A (Clean Sludge or Exceptional Quality) and Class B categories as do the Part 503 regulations. Nor do the West Virginia regulations provide incentives for West Virginia POTW's to produce Class A end products.

The fees associated with the regulation process again become a factor in the processing of sewage sludge to the Class A or 'Exceptional Quality' level, and should provide incentives for POTW's to produce a Class A product which is both beneficial to the producer and to the state. Anything less than a Class A or regulated Class B sewage sludge can be detrimental to the future of West Virginia environmentally.

The City of Wheeling hopes the Department of Environmental Protection will seriously consider the comments made at the public hearing and submitted in writing regarding the proposed regulations and make good constructive changes that will allow the City of Wheeling and other West Virginia POTW's to economically handle sludge disposal problems consistent with the environmentally sound solutions provided by 40 CFR Part 503.

I have attached to this letter a list of specific concerns with various sections of the proposed regulations, and would ask that these comments also be considered as part of the public record regarding the Title 47, Series 38D regulations.

Thank you for the opportunity to speak and submit comments regarding this very important issue for West Virginia.

Sincerely,

Jimmy E. Cumes
City Manager

Attachment

cc: Mayor Jack Lipphardt

City of Wheeling

Comments on proposed Series 38D Sewage Sludge Regulations.

2.13/2.14 - "Composting" should not be used as terminology. The terminology should reflect the new Federal 503 regulations. "P.F.R.P." or "E.Q.S." or "Class A" technologies are all terms that refer to a higher level of treatment.
This can include composting, Alkaline Pasteurization, or possibly pelletization. There are many other alternative technologies to composting, many are safer.
Does the definition of composting include N-Viro or do they recognize composting as an entirely different operation/process (which it is).
Similarly, "Composting Facility" means what? Can our operation be set up at another location in the same county and be considered part of the treatment plant or does it actually need to be connected. As P.F.R.P. treatment it could be argued that this was part of the wastewater treatment process.

2.25 - If a materials recovery facility does not include a composting facility, where would an N-Viro A.A.S.S.A.D. facility fall. Would it be considered a mixed waste processing facility?

2.33 - Sludge should be considered a recycled product after it has been subjected to an approved "Class A" treatment. At least with further restrictions (such as 50% solids content) this status should be attainable.

2.35 - How will incinerator ash be classified?

2.36 - This paragraph should include some of those technologies. "Alkaline Pasteurization" should be included. At this time there are only 8 In-Vessel composting facilities in operation in the country. There are over 30 Lime Pasteurization facilities.

2.44 - It does not appear that this article would allow lime sterilization to be performed, because when Lime Sterilization is wet it does give off offensive odors as does composted material. Alkaline Pasteurized material does not.

3.1 - Federal regulations set out a guideline for "Clean Sludge" or "E.Q.S." (exceptional quality sludge) with the intent to promote beneficial re-use. If the BIO-SOLIDS or products incorporating bio-solids are of a low enough contaminant level they are deemed safe enough for unrestricted sales. This will allow for the successful marketing of the final product. If the State of West Virginia would like to place more stringent requirements on these products, They might consider requiring a minimum of 50% dryness or a more restrictive fecal coliform count.

(3.1 con't) pH could also be a factor in this requirement. The N-Viro A.A.S.S.A.D. process is mentioned specifically in the E.P.A. 503 regulations as a E.Q.S. technology, where does West Virginia acknowledge this? (see E.P.A. 503 regulations attached).

3.2 thru 3.2.3. - These restrictions will eliminate the possibility of ever marketing sludge based products (even if generated locally) to the general public in the State of West Virginia. This is in direct opposition to the intent of the establishment of a "Clean Sludge" guideline. As this regulation is written, all technologies that seek to utilize the benefits of properly treated biosolids will fall under this restriction, regardless of the means by which the final product is produced or the final form that the product will take. Specifically:

3.2.1. This says "sludge will not be applied to land...". N-Viro Soil, or Alkaline Pasteurized Biosolids is a product and is not sludge.

3.2.1.e. - This will eliminate the possibility of the use of Alkaline Pasteurized Biosolids in Department of Transportation projects such as re-seeding after construction and for erosion control. This is one of the most exciting opportunities in the recycling of properly treated material.

3.2.1.g. - This restriction does not include any acceptable distance. If the run-off from the material is clean then this restriction would be unnecessary. There should at least be a table of acceptable distances and/or acceptable levels of contaminants in the runoff.

3.2.1.h. - This would eliminate the use of ALKALINE treated Biosolids on disturbed lands as a way of raising the pH. Such as around strip mines , construction sites and on reclamation projects. This seems to be intended for application of sludge that is acidic. It has been well documented that ALKALINE PASTEURIZED biosolids are an effective amendment product for raising the pH of lands like these. Even in one time applications.

3.2.1.i. - This would eliminate the use of these products for erosion control on slopes, a very appropriate use for some biosolids based products. This also has been documented.

3.2.1.k. - Again this would limit the use around strip mine areas (the areas in most need of soil amendment). N-Viro Soil, if blended with clay results in an acceptable topsoil material. It has a stable pH and exhibits the characteristics of soil.
Heavy Metals are bound in an insoluble metal hydroxide salt coating, much the same way as heavy metals present in any soil material. The contaminants are permanently bound (unless, as with native soils, they are heavily stressed with acid). N-Viro Soil has been used as landfill cover, structural/construction fill material, a soil amendment, ag-lime and fertilizer with no adverse affects to the environment.
Would this material (blended or unblended) qualify as soil that could be utilized to achieve this 20" requirement?
If so, then this restriction should not apply to land application of N-Viro Soil. (The U.S. E.P.A. has recognized Chemical Fixation as "the best demonstrated available technology to immobilize heavy metals".

(3.2.1.k. cont'd) Composting does nothing to immobilize heavy metals, in fact if the resulting compost is on the acidic side, heavy metals could continue to leach from this material indefinitely. Clearly the A.A.S.S.A.D. process deserves recognition above that of compost for land application for this reason.

3.2.1.1 - This seems overly restrictive and should have other parameters, such as depth of topsoil, clay or bedrock. In addition just as above, N-Viro Soil should be blended with this material to make a better product.

3.2.3. - These Dry Ton limits should not be so low for all circumstances. This may work for ag. application, but in strip mine reclamation applications and in some landfill cover or maintenance applications this could prevent the goal from being achieved. This should have additional parameters allowing certain quality material greater leeway.

3.3.1.a. - This makes no provision for clean runoff and does not define what level of contaminants are acceptable/unacceptable. In addition if the processing site is located at the landfill (which is already lined, with a leachate collection system, then this is redundant.

3.3.1.d through 3.3.1.d.D. - These restrictions could unnecessarily prevent the recycling of Biosolids in the State of West Virginia due to cost. Again "Clean Sludge" or E.Q.S. Biosolids should be treated differently than extremely contaminated "Class B" materials. These restrictions may be written for in-vessel composting. They are extremely restrictive and overly protective. The result will be increased costs that will cause clean re-usable Biosolids to be dumped in a landfill for disposal. Again, there should be exceptions for material that has been treated to a safer level or for material that may be "safe" before treatment.

3.3.1.d.b. - If the installation were on solid rock, would a clay liner still be required? Solid rock is certainly more impenetrable.

3.3.1.d.c. - What exactly defines a "Leachate detection zone?"

3.3.1.d.D. - A final surface should also have the option of being 8" of Dense Graded Aggregate (compacted) and 4" of Asphalt as an alternate to the 6" of concrete.

3.4.1. - The question again comes up - N-Viro Soil (or A.A.S.S.A.D. pasteurized Biosolids) is not sludge, and water that comes in contact with it should not have to be handled in any special manner. This has been repeatedly tested-and proven. This product can be stored in the open indefinitely.

3.6. thru 3.6.1. - This regulation does not take into account final product that may be used as landfill cover. Some Class A processes (like the N-Viro Process) result in a final product that is no more sewage sludge than gasoline is crude oil or wastewater is clean effluent.

(3.6 thru 3.6.1 cont'd) If this material were to be judged based on 25% of the total waste disposed of at the landfill, then once again an opportunity to recycle biosolids will have been lost. There should be restrictions on the suitability of Biosolids derived products as landfill cover (such as 50% dryness, compaction or permeability, pH, and vector attraction) this restriction is far to broad to be sensible.

4.1.3. This seems to say that the operation could be placed at the sewage treatment plant. Is this true?

4.1.5. - This paragraph should allow for variances of permits-by-rule at the discretion of the State.

4.2.1.g. - This should read (.....or final product)

4.2.1.h. - This is to restrictive for the sale of E.Q.S. material. This regulation will severely inhibit a marketing program for Class A or E.Q.S. products.

4.2.1.j. - This should read (....unless granted a variance by the State)

4.2.2. - Again, can the mixing operation for an A.A.S.S.A.D. facility be put at the wastewater treatment plant?

4.2.2.c.E and 4.2.2.c.F - These paragraphs should refer to "E.Q.S." or "P.F.R.P." or "Class A". There are other appropriate technologies and the word compost is not only a competitive advantage for compost system vendors, it is misleading.

4.2.2.c.H. - The N-Viro Process in Wheeling will use Fly Ash. This is not a "bulking agent". It is required for pH maintenance and for further drying. The definition of a bulking Agent should be clarified.

4.2.2.e.F thru 4.2.2.e.K - These regulations are written specifically for in-vessel composting systems. Not only do they fail to address other technologies they imply a preference from the State's perspective and are therefore unfair. They should be removed or amended appropriately.

4.2.3. - It is our understanding that under the Federal E.P.A.'s 503 regs. that P.F.R.P. processes such as the N-Viro A.A.S.S.A.D. do not require some of the regulations stated. In fact, N-Viro Soil is considered so safe that it is the only sludge based product available in the world that can offer Product Liability Insurance (through C.N.A. a national Underwriter). This at least demonstrates the level of safety that these products can achieve. (Please see attached 503 regulations, see note on page 8, 5th paragraph)

4.2.3.a. - If marketing a "Clean, E.Q.S., Class A" or other such treated final product this amount of information is unrealistic and will impede marketing efforts drastically.

4.2.3.c. - This is also overly restrictive. If the material qualifies as a clean material it is operationally impossible to provide this level of detail for every single end-use. These uses could be yards, maintenance on bare spots, construction sites etc. At the higher level of treatment Biosolids derived fertilizers, ag-limes, and soil amendment products are generally much "cleaner" than commercial fertilizers. Commercial products do not have this restriction and if the Biosolids derived products cannot compete on a cost and convenience basis, they will not be purchased and the recycling program will fail.

4.2.3.f and 4.2.3.g - Sometimes the owner of the property does not know this information. This is impractical!

4.2.3.i. - N-Viro Soil is not sludge!

4.2.3.n. This is another reason to establish a mechanism for higher application rates of E.Q.S. products. It has been repeated demonstrated that Alkaline Pasteurized Biosolids, for one, can improve the pH of acidic soils indefinitely after only one application. Carey Technologies has achieved this on soils with a pH as low as 2.3 with applications of 70 to 100 dry tons per acre. (relatively little considering the resulting vegetation and improvement of water quality- no additional applications have been required.

5.3 this whole section should exempt E.Q.S. products or at least set guidelines for cleaner or diluted materials.

5.3.4. - N-Viro Soil has been cleared by the 503's to be spread on food chain crops.

6.3.1 and 6.3.2 These fees should be reduced according to the level of treatment that the material has undergone. Land Applying Class B liquid is not the same as a farmer using a registered fertilizer made from Biosolids that have under gone treatment from a class A technology. The use of a fee system to support inspection and fund research is good, however these fees are excessive and could prevent recycling from taking place due to the competitive bidding process (it could always be cheaper to dispose of in the landfill). In addition by applying these fees "across the Board" the State is contributing to the removal of any incentive that a generator may have to seek a higher and safer level of treatment for his/her Biosolids. What exactly is a material derived from sewage sludge? This needs to be defined. Why do smaller operations subject to less treatment pay less than operations with pre-treatment requirements?

6.6.3. - Municipalities and Landfills should be able to make cover out of their own products--particularly if these products can be used without further permitting--according to the 503 regs. mentioned in this document.

Appendix A - Again these rates are excessive. Specifically the frequency of monitoring for 1,500 to 15,000 and over 15,000 dry ton facilities. It could be estimated that a facility generating over 15,000 dry tons per year would spend over $150,000 in testing alone. If these guidelines are not reduced it will contribute further to higher costs, again reducing the realistic opportunities to recycle this valuable (if properly handled) resource.

WETZEL COUNTY SOLID WASTE AUTHORITY
P.O. Box 192, Proctor, West Virginia 26055

Office of Waste Management, DEP
1356 Hansford Street
Charleston, WV 25301
Attention: Bill Rheinlander

June 16, 1993

Dear Mr. Rheinlander,

The Wetzel County Solid Waste Authority would like to submit the following comments regarding Title 47, Series 38D, "Sewage Sludge Management Regulations". While our authority recognizes the time constraints and the enormity of the task of promulgating these rules in a timely fashion, we also feel it is imperative that these rules and regulations reflect the intent and will of the legislature. They clearly do not.

In reviewing this document, we found so many gross inconsistencies not only between these rules and regulations and the intent of SB 288 but within the document itself that it was difficult to determine whether our recommendations should be to change specific passages or to start from scratch. We chose to offer specific comments as well as offer the strong suggestion that the writers of these rules and regulations go back to the drawing board and make the rule reflect the contents and intent of SB 288.

The Fiscal Note for a Proposed Rule states that there will be no fiscal change as a result of these rules and regulations. This statement is false. Up until the time the Office of Waste Management was transferred from the Division of Natural Resources to the Division of Environmental Protection, sewage sludge processed and placed at the Wetzel County Landfill was counted against the monthly tonnage and all applicable solid waste fees were applied.

After the transfer of the Office of Waste Management to the Division of Environmental Protection, sewage sludge processed and placed in the Wetzel County Landfill, with the exception of New Martinsville, Jefferson County Ohio, and Paden City, was exempt from all tipping fees and not counted against the monthly tonnage. There were many contracts either in the process of negotiation or already signed, but the one contract that was closely scrutinized was from Nassau County, New York. This single contract was for 108,000 tons of sewage sludge per year to come to Brooke and Wetzel counties. Until SB 288 was passed, Director Callaghan's policy of not counting sewage sludge composted at and placed in a solid waste facility was costing the state $1 million per year for the Nassau County contract

alone. It was costing the host county solid waste authorities $49,000 per year. Nassau County was the tip of the iceberg. We soon learned of a signed contract with Westchester County and proposed contracts with Jamaica, NY; Bergen County, NJ; to name a few.

These rules and regulations also impose fees upon local POTW systems for land application and remediation. These fees are substantially lower than landfilling. These rules and regulations would also require that extensive capital be spent to comply with stringent sludge containment requirements that could price small generators of sewage sludge out of the composting business. This entire provision is ignored under the fiscal note provision of B.1. Economic Impact on Political Subdivisions: No impact.

The Fiscal Note should give direct reference to the fees required to be collected by solid waste facilities processing sewage sludge that is required under 20-5F-2b(e). Using the figures from 1992, the fiscal note should include the programs that will benefit by resuming the policy of counting sewage sludge as solid waste when it is handled at a solid waste facility.

Our second specific objection is to 47-38D-1.5. where federal rules are incorporated by reference. One of the primary reasons other states are targeting West Virginia as a sludge depository is the lack of rules and regulations that are more stringent than 40-CFR-503. New York, New Jersey, Pennsylvania, Maryland, Ohio, Virginia and Kentucky are but a few states that have discovered the weakness in the EPA 503 rule and have established rules more stringent than current EPA guidelines. More importantly, there are specific portions of EPA 503 rule that are in direct contradiction to the mandate of West Virginia Code. These contradictions must be reconciled to reflect the legislative intent of West Virginia Code.

On page 2, section 2.8 of the proposed rule there is a definition of a "Class A Sewage Sludge Processing Facility". Since such a facility would be the same as a "Class A Facility", referred to in 2.7, we find the definition of a Class A Sewage Sludge Processing Facility to be redundant and respectfully request that it be removed from the definitions. Since sections 2.9 and 2.10 would also be classified as solid waste facilities, the definitions of Class B and C Sewage Sludge Processing Facilities would also be redundant. These two definitions should be eliminated as well.

On page 6, section 2.43 in the definition of "Source Separated Organic Materials", we would like to see the inclusion of the following language after the final word "septage." to be amended to "...septage, or wood waste that consists of treated lumber."

On Page 7, 47-38D-3 STANDARDS FOR USE, DISPOSAL AND PROCESSING OF SEWAGE SLUDGE starting with section 3.1 Incorporation of Federal Regulations; we must again vigorously object to the blind incorporation of 40 CFR part 503 rule. The 503 rule is not only in direct contradiction to the newly adopted SB288, but it is even weaker than existing rules for land application of sewage sludge currently administered under the Office of Water Resources, under the direction of Dr. Eli McCoy.

Section 3.2 also needs many changes. This section is also a watered down version of the current rule followed by Dr. McCoy. There are other more stringent models that would enhance the protection of West Virginians while protecting the on-going practice of small scale controlled land application of sewage sludge that has been occurring for years. The legislature intended to protect the current policy of 75% of the POTW's land applying sewage sludge with minimal impact. Our Authority supports the legislature's efforts to this end.

Our Authority suggest the following changes:

3.2.1.a. Should read, "Land that is frozen, snow-covered, or known to be flooded on a regular basis." Delete all subsequent language in this sub-section.

3.2.1.b. Amend to, "Land within 300 feet..."

3.2.1.c. Amend to, "Land within 1000 feet..."

3.2.1.d. Amend to, "Land within 1000 feet of an occupied dwelling or within 600 feet of an occupied dwelling with the signed consent of the owner of said dwelling.

3.2.1.e. Amend to, "Land within 50 feet of any public highway or road."

3.2.1.h. Amend to, "Land that has been tested and determined to have a pH of less than 6.5"

3.2.1.i. Amend to, "Land that has a slope greater than 6%."

3.2.1.j. Amend to, "Land that has a seasonal high groundwater table less than 5 feet from the surface."

3.2.2 refers solely to soil concentration limits referred to in the 503 rule. This is in direct contradiction to West Virginia Code 20-5F-2b(b)(6). The 503 language gives reference to the contaminants within the sludge applied without factoring in the pre-existing contaminants within the soil. 20-5F-2b(b)(6) specifically requires the DEP to do a statistical analysis of the pre-existing elements of the soil that will receive sludge.

It is the responsibility of the DEP to establish maximum loading limits and apply those limits based upon what already exists in the soil combined with the contaminants present in the sludge to be land applied. Should the combined total of contaminants within the soil and contaminants within the sludge exceed the maximum loading limits, land application at that site should be prohibited.

The Authority further recommends the following be added after 3.2.3., "3.2.4. No land within a solid waste

facility, but outside a landfill disposal cell, be allowed to accept the permanent application of so much sewage sludge as to exceed the agronomic rate or a rate of fifteen dry tons per acre per year, which ever is less." This language is lifted verbatim from the code and would prohibit the so called sludge dedication sites referred to in in 40 CFR section 503.

Section 3.3. SEWAGE SLUDGE PROCESSING FACILITY OPERATIONAL AND DESIGN REQUIREMENTS (beginning page 8)

3.3.1.c. Amend to, "The facility must not be operated or constructed within the one hundred year flood plain." Delete everything else.

In sections 3.3.1.d., including A.through E., our Authority supports these stringent specifications when they apply to large scale generators or importers, but when applied to small scale facilities, this yardstick seems inappropriate. While a household generates garbage that is collected in a container and that garbage generates lechate, the law doesn't require a home owner to build a miniature landfill. While construction and demolition landfills do require some environmental safeguards, they are not nearly as stringent as those that apply to solid waste landfills. By the same token, it is unfair to place small municipalities in the same playing field as major metropolitan areas. The environmental rule in West Virginia needs to incorporate the amount of sludge generated combined with the toxicity of any sludge generated or imported.

The Wetzel County Solid Waste Authority would support language that would adjust the environmental requirements according to the quantity and quality of sewage sludge generated. A good place to start would be to require sewage sludge processing facilities generating 500 tons per monnth or less to have an asphalt pad in lieu of the stringent liner requirements for larger facilities.

3.6. Amend to delete the final sentence, "Alternative sludge disposal methods can be utilized upon obtaining written approval from the chief." This gives the chief entirely too much latitude and exempts propsed disposal alternatives from public notification or comment.

47-38D-4 PERMITS REQUIRED

4.1.2. In order for this section to reflect the code, 20-5F-2b(12)(c), it should read as follows: "For those publicly owned treatment works (POTW) which produce sewage sludge and are regulated by the division pursuant to an NPDES permit required under article five-a of this chapter, a sewage sludge processing permit shall be a part of the existing water pollution control permit and shall include a sewage sludge management plan approved by the chief."

4.1.3. The Wetzel County Solid Waste Authority has many major problems with this section not only as it applies to Wetzel County but the impact it will have upon the entire state. Quite candidly, this sub-section creates wretched state policy.

The permit issued to the Wetzel County Landfill, permit #SW-1021-92 under E. Permit Conditions section 1. states "This facility has submitted the Module A (NPDES) Application....Incorporation of Module A into the Solid Waste Facility Permit is required and will constitute a "major modification" and all related regulatory requirements must be met thereunder.". Yet 4.1.3. states that "...a sewage sludge processing facility MODIFICATION WILL BE OBTAINED (emphasis ours) as a part of the existing solid waste permit and shall include a sewage sludge management plan.".

It treats a sludge processing facility as a minor modification. There are no provisions for public input, no requirement that such a drastic change in land use would have to comply with the county or regional solid waste authority's siting plan, no requirements of county or regional solid waste authority approval. Furthermore the language "will be obtained" nearly implies a mandate that the DEP grant a sludge processing facility modification to ANY permitted solid waste facility, be they a recycler, a transfer station or a landfill. The requirements for a permitted solid waste facility to receive a "sewage sludge processing modification" are less stringent than those required for POTWs under 20-5F-2b(12)(c). POTW's are required to receive a permit while permitted solid waste facilities are required by the proposed rule to only obtain a modification.

It is the opinion of the Wetzel County Solid Waste Authority that any permitted solid waste facility seeking to process sewage sludge should obtain a permit as required for POTW's, and that such a permit be subject to the provisions established within the local or regional solid waste authority's siting plan. If sewage sludge processing facilities are expressly or tentatively prohibited within the host county's plan, or the area proposed for sewage sludge processing has not been designated an acceptable area, the permitted facility must obtain approval from the regional or county solid waste authority before the DEP can issue the sewage sludge processing permit.

In the same manner POTWs are required to obtain an additional permit even though the volume of sewage and sludge remains constant, permitted solid waste facilities would be seeking a permit for a new activity upon a pre-existing site. They would still be bound by the tonnage limits and fees required in 20-5F-2b(12)(e). Obtaining a sewage sludge processing permit for a permitted solid waste facility should be treated as a MAJOR MODIFICATION to an existing solid waste facility permit and subject to the provisions of 3.18..

4.1.4. Amend after the words "Series 38..." by adding "and any and all Certificate of Need requirements as required by the Public Service Commission."

4.1.5. Should be amended to add provisions within the code that require public participation.

4.2. GENERAL, PROCESSING FACILITY, AND LAND APPLICATION PERMIT REQUIREMENTS.

4.2.1.i. Since the 503 rule is very weak in the area of quality control and this section references all of 40 CFR, Part 503, we recommend rewriting this entire section. This rewrite should include an analysis for heavy metals to include but not be limited to arsenic, cadmium, chromium, copper, lead, molybdenum, nickel and zinc and a testing for toxic and hazardous materials using toxic characterization and leaching property (TCLP) tests. Standards should also be established for refusing sludges that test too high for specific toxins or heavy metals.

4.2.2.a.A. Please amend to "A regional map, or maps (of appropriate scale that delineate SEWAGE SLUDGE PRODUCING AREA..." As this subsection reads now, a sewage sludge processing facility could simply locate every POTW sending sludge to their facility. This wouldn't reveal whether the POTW was receiving large quantities of waste water from industry or residents nor would it reveal the size of the population serviced. By amending the regional map to delineate the sewage sludge producing area, you will have a clearer picture of the types of customers feeding into any contributing POTW.

4.2.2.c.E. Please amend to include the following after the final word, "conditions;" to,"to include a landfill that will accept the unused product. Any finished compost may not be stored on site for a period of more than 120 days. After 120 days, any finished compost must be applied within accordance with these rules and regulations or landfilled;"

4.2.2.e.I. " The expected mass balance through the composting system;" should be deleted. This is the creation of a formula to anticipate the difference between the weight of uncomposted sewage sludge and the weight lost due to composting. We assume the purpose is to credit a solid waste facility for the compost that leaves the facility for land application purposes and exempt composted sludge leaving a solid waste facility from the fees required by 20-5F-2b(12)(e).

There are many problems with using such a blanket formula. All sludge is not equal. While our rules and regulations require sludge to be at least 20% solid by weight, the city of New Martinsville's sludge is over 50% solid by weight. If the formula used assumed that every ton of sludge processed was 20% solid by weight, it would take

five tons to equal one ton of sewage sludge subject to the tipping fees, while in many cases, the actual case would be two tons would equal one ton. The state would be losing $8.25 per ton for every ton that would slip through the cracks using this formula.

Furthermore, this formula assumes that all sludge will be composted effectively and the 80% water will be removed. Again, every miscalculation of this formula will result in a loss of revenues of $8.25 per ton to the state.

The only equitable way to compensate a solid waste facility for the compost that leaves the facility is to credit them for the actual weight that leaves the facility. Therefore, the Wetzel County Solid Waste Authority recommends the following replacement language for 4.2.2.e.1. "All applicable fees required by 20-5F-2b(12)(e) shall be paid as proscribed by this chapter on any sewage sludge entering a solid waste facility based on the actual weight of the sludge as it enters the facility. Any composted sewage sludge leaving the solid waste facility shall be weighed and the actual tonnage leaving the facility shall be deducted from the monthly tonnage and all fees as proscribed under 20-5F-2b(12)(e) shall be waived;". This language would specifically spell out your intent. It may be better placed in 47-38D-6 Fee Assessment, however we found no reference any place in these proposed rules and regulations that dealt with the fees mandated by 20-5F-2b(12)(e). Perhaps this language should be replacement language for 6.3.3.

4.2.3.n. Please amend "maintain the soil to a minimum pH of 6.5..." and include language for penalty assessments for non-compliance.

47-38D-5. GENERAL, PROCESSING FACILITY, AND LAND APPLICATION PERMIT REQUIREMENTS.

5.2.3. Kiln dust in many states is actually the ash from unregulated, unmonitored hazardous waste incinerators, since many cement kilns burn hazardous waste for fuel and have carved a neat little exemption for themselves under federal law. Our Authority would urge the prohibition of kiln dust from any sewage sludge processing facility, landfill, composting facility, or land application. If we do accept kiln dust, it should be treated as special waste and TCLP, heavy metal and most importantly PCB and dioxin testing should be done on any proposed acceptance of kiln dust. The most stringent standards we can find should be applied to kiln dust.

47-38D-6. Fee Assessment

6.1. Please amend "Any person required to obtain a solid was facility permit pursuant to these regulations" to "Any producer or importer of sewage sludge or product thereof

shall be subject to...". The purpose of this proposed amendment is to close any loophole that may exist in this proposed rule.

6.3.3. Please see our comments on 4.2.2.e.I. In addition, we object to the dedication of these fees solely to the Solid Waste Enforcement Fund. There are many other places these fees apply, specifically the 50 cents per ton to the host county solid waste authority not to mention the recyling fund the $1 per ton for the Solid Waste Management Board, the landfill closure fund to mention a few. The code, 20-5F-2b(12)(e), states that, "All Sewage sludge placed in, or upon, or used by a solid waste facility or processed or handled, pursuant to a permit issued by the division of environmental protection, shall be subject to the same tipping and other fees levied by this chapter on the disposal of solid waste..." Please note there is no codified dedication of fees solely to the Solid Waste Enforcement Fund. Furthermore, 6.3.3. ignores the inclusion of the optional host county fee that can be assessed.

A section that is missing from these regulations is 47-38D-7 Enforcement. There are absolutely no consequences under this rule for non-compliance. Our Authority suggests language be adopted to issue citations for non-compliance and place the offending generator or importer on a compliance schedule to remediate the violation. We further suggest if the violator doesn't come into compliance within the time frame required, fines be levied. We further suggest that language be included to authorize the director to revoke the permit of an importer or generator of sewage sludge that doesn't comply or repeatedly violate the provisions of Chapter 20 and these rules and regulation in regards to sewage sludge. Language that spells out the appeal process should be included in this section as well.

Another item that is absent from this proposed rule is any reference to the role of the Office of Water Resources. Our Authority would like to see a section of this proposed rule clearly defining the role of the Office of Water Resources. It is our understanding that Dr. McCoy's office currently oversees the land application of sewage sludge and the issuance of NPDES permits for POTWs. The specific roles of both the Office of Waste Management and the Office of Water Resources should be clearly spelled out in the proposed rule to avoid any future confusion.

The Wetzel County Solid Waste Authority would like to see these rules and regulations have as little impact as possible on local POTWs. In the drafting of the many versions of what is now known as SB 288, the intent of the legislature was consistently to draft language that would have minimal impact upon local POTWs and to simultaneously avoid any unconstitutional differential treatment of waste coming into West Virginia.

In codifying limits to the size of sewage sludge facilities and rates of land application of sewage sludge, the legislature was trying to protect the citizens of the state from being the recipients of vast quantities of sewage sludge. They accomplished this by requiring responsible land use policies be adopted in regards to sewage sludge.

The purpose of these lengthy and specific comments has been to ensure the legislative intent of SB 288 would remain intact. It is our sincere hope that you will amend your proposed rules and regulations to reflect West Virginia code, treat local POTW's gently, and protect West Virginians from becoming host to America's sludge pit.

Martha Huffman
Wetzel County Solid Waste Authority

Natural Resources
Defense Council

40 West 20th Street
New York, New York 10011
212 727-2700
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May 19, 1993

Part 503 Sewage Sludge Use and Disposal Rule
Comment Clerk
Water Docket MC-4101
Environmental Protection Agency
401 M Street, SW
Washington, D.C. 20460

Re: **Comments on Cadmium Standards under Final Rule, Standards for the Use or Disposal of Sewage Sludge (58 Federal Register 9248 et seq., February 18, 1993)**

To the Comment Clerk:

The Natural Resources Defense Council ("NRDC") and the Environmental Defense Fund ("EDF") submit these comments on the cadmium standards under the "Final Rule, Standards for the Use or Disposal of Sewage Sludge" (58 Federal Register 9248 et seq., February 18, 1993). The Preamble to the Final Rule provides that "EPA welcomes additional data and analyses related to [the cadmium] standard and will consider any such additional information received by the Agency within 90 days of publication of today's rule." (58 Federal Register 9276).

NRDC and EDF submitted joint comments on the "Proposed Rule, Standards for the Disposal of Sewage Sludge", on August 7, 1989, and has met with EPA representatives on numerous occasions to present our views on the final provisions of the Part 503 Rule.

NRDC and EDF are very concerned that the cadmium standards under the Final Rule for the cumulative application of sludges and for APL sludge do not meet the requirements of the Clean Water Act, Section 405(d)(2)(D) to "adequately protect

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public health and the environment from any reasonably anticipated adverse effects" of cadmium-polluted sludge. Therefore the cadmium limits should be revised to ensure adequate protection. We recommend that the standards be revised to provide an application limit of at most 21 mg/kg, and an APL limit of at most 21 mg/kg.

It should be noted that our proposed standards are consistent with a 1981 Interagency Policy Statement on Sludge Use on Land for the Production of Fruits and Vegetables. That Statement was a joint statement of EPA, the U.S. Department of Agriculture and the U.S. Food and Drug Administration. Given EPA's reversal on the proper cadmium standards, both the USDA and the FDA should be given full and ample opportunity to offer comments on the 39 mg/kg cadmium standards of the Final Part 503 Rule and EPA should be required to respond to their comments fully and adequately.

Revision of the Final Part 503 Rules according to comments received during this comment period should proceed expeditiously; at the very latest, revisions should be integrated in the Rule and the Rule fully promulgated by October 1, 1993 (allowing over four months for the revision process). Revision should not delay progress on Round II of the Part 503 Rule.

Our comments are:

1. **Cadmium Poses A Greater Risk When Applied to Acidic Soils Yet EPA Bases its Cadmium Limit Primarily on Data From High pH Soils**

EPA has set a cadmium limit of 39 mg/kg. That limit is based in part on data concerning cadmium uptakes where cadmium-polluted sludge was applied to largely high pH soils. However, cadmium uptake is greater, and cadmium poses a greater risk, in acidic soils.

EPA was presented with considerable information on the issue of cadmium uptake on acidic soils by representatives of the U.S. Department of Agriculture, and yet failed to take such information into account and lower its cadmium limits to conform with USDA proposals. Furthermore, EPA failed to include pH requirements in the Final Rule to ensure that the assumptions made in determining the 39 mg/kg limit (i.e., high pH soils) would prove true in actual land application of sludge under the Rule.

Acidic soils make up approximately half the agricultural lands in the United States. In the Northeast, an area where large-scale sludge application programs are being considered as the nine ex-ocean dumpers develop their long-term sludge management program, the soils are predominantly acidic.

Because of the greater risks of cadmium uptake in acidic soil, and because of the great acreage of acidic soils used by U.S. farmers, NRDC and EDF recommend that the

cadmium limit for land application and APL sludges be lowered to at most 21 mg/kg. Information presented by the USDA indicate that such a limit would provide adequate protection of public health and the environment from sludge applied on all soils.

2. **EPA Used A Geometric Mean to Determine Dietary Intake of Cadmium, Despite the Reality of Human Consumption**

The EPA calculated dietary uptake of cadmium utilizing geometric means of daily intakes. However, individuals eat the sum of cadmium in their diet over their lifetime (calculated by arithmetic means), not the geometric mean of daily intakes multiplied by the number of days exposed. Thus, the sum of actual intakes is likely to be greater than the geometric means summed across the days of exposure.

As the USDA has pointed out in comments to EPA, the use of arithmetic means results in a lower cadmium limit, consistent with our recommendation that the cadmium standards be changed to at most 21 mg/kg.

3. **EPA Underestimated the Total Risk to the Home Gardener**

In determining risk to the home gardener from cadmium-polluted sludge, the EPA failed to take into account that not only will the home gardener consume his/her own products but also other products potentially grown with sludge, including grains and produce. Thus the rate of daily cadmium ingestion will in fact be higher than assumed by the EPA.

In order to provide adequate protection to the home gardener, we recommend that the sludge APL standard for cadmium be lowered to at most 21 mg/kg.

4. **The National Sewage Sludge Survey Indicated that a Cadmium Standard of 21 mg/kg is Currently Achievable**

The National Sewage Sludge Survey indicated that a significant amount of the sludge produced nationwide can currently meet a cadmium standard of 21 mg/kg. Furthermore, the survey's data indicates that feasible improvements in pollution prevention and industrial pretreatment could bring virtually all sludges to such a standard or lower.

NRDC and EDF are very concerned that EPA's cadmium standard will result in a backsliding of sludge quality and a reduced commitment to pollution prevention and pretreatment. Not only will the risks of land application of sludge therefore be unnecessarily (and unreasonably) increased, but it is likely that effluent quality from sewage treatment plants will degenerate, resulting in degradation of receiving water quality.

The 1987 amendments to the Clean Water Act, including both the anti-backsliding provisions and the 405(d) provisions, demonstrate Congress' clear intent that regulations governing sludge and water quality promulgated under the Clean Water Act should not result in a backsliding of sludge and effluent quality.

Given the current status of sludge quality in the United States, and the ability of all sludges to meet a cadmium limit of at most 21 mg/kg, EPA should require no less in its rule.

5. **The Export of Grains Will Be Jeopardized by EPA's Cadmium Standards**

Despite repeated entreaties from USDA, EPA has refused to recognize the serious impact its cadmium standards will have on the ability of U.S. farmers to export agricultural products grown with sludge. Not only may farmers be subjected to increased and expensive testing/certification requirements when exporting grains, but those products will be rejected if grown with sludge conforming to EPA's standard of 39 mg/kg. According to the USDA, the economic losses associated with increased certification requirements and loss of overseas markets will be significant and potentially devastating for some farmers.

6. **The USDA May Come Out with Its Own, More Stringent, Cadmium Standards To Protect Farmers That Will Conflict with EPA's Standard and Undermine Public Confidence in Beneficial Use of Sludge and in EPA**

The USDA has raised serious issues to EPA concerning the cadmium standards for land application of sludge, including concerns over acidic soils, export grains, and the economic viability of farmers. Because EPA has not responded to those concerns, there is a possibility that USDA will issue its own guidance to farmers on sludge use, which will include more stringent cadmium standards.

If the USDA comes out with its own standards, a message will be sent that EPA cannot ensure adequate protection of public health and the environment, and public confidence in EPA and in the Part 503 Rule for Sludge Use and Disposal will be undermined. NRDC and EDF urge EPA to work with USDA in resolving the issues of concern: both agencies have a responsibility to coordinate and harmonize their activities to send a clear meassage to the regulated community and to the public about the benefits of sludge reuse.

We recommend that in order to address the issues identified by USDA, EPA revise its cadmium standards to at most 21 mg/kg for land application and 21 mg/kg for APL sludges.

7. **The Opinion of the Food and Drug Administration Should Be Solicited on the Appropriate Standards for Cadmium**

It has come to the attention of NRDC and EDF that the FDA did not offered official comments on the proposed 503 Rule, including the proposed cadmium standards. We recommend that during the period set aside for review of comments received on the final cadmium standards, official comments of the FDA be solicited. In addition to clear jurisdictional interest over the matter of agricultural products grown with sludge, the FDA has expertise that could be very useful to the EPA in determining the adequacy of its cadmium standards.

Furthermore, the FDA was a signatory, along with EPA and USDA, to the 1981 Interagency Policy Statement on Sludge that recommended a 25 mg/kg standard for cadmium, along with EPA and USDA. Given the dramatic reversal of EPA on the appropriate standard for cadmium, the FDA must be fully briefed on EPA's reasoning and given an opportunity to offer official comments on the 39 mg/kg standard.

Thank you for this opportunity to offer comments on the cadmium standards in the Final Part 503 Rule. We look forward to working with you further on this and other issues presented under the Part 503 Rule.

Sincerely,

Nina Sankovitch
Senior Project Attorney
Natural Resources Defense Council

Sarah Clark /nms

Sarah Clark
Senior Scientist
Environmental Defense Fund

DEPARTMENT OF COMMERCE, LABOR & ENVIRONMENTAL RESOURCES
DIVISION OF ENVIRONMENTAL PROTECTION
1356 Hansford Street
Charleston, WV 25301-1401

Gaston Caperton
Governor

John M. Ranson
Cabinet Secretary

David C. Callaghan
Director

Ann A. Spaner
Deputy Director

June 25, 1993

MEMO TO: Ann Spaner, Eli McCoy, Bill Brannon and Clifton Browning

FROM: Bill Rheinlander BR

SUBJECT: Sewage Sludge Comments

Enclosed is a complete copy of the sewage sludge regulation comments we received during the recent 30-day comment period.

Enclosures

January 22, 1993

Note to: Carol Browner, Administrator

From: Richard Guimond, Acting Assistant Administrator,
Office of Solid Waste and Emergency Response

Subject: WTI Incinerator Issues

BACKGROUND: This note is to bring you up to date on the activities we have underway to evaluate the issues relative to the Waste Technologies Incorporated (WTI) incinerator in Ohio. This incinerator has obtained all of the necessary permits to conduct a trial burn. However, strong opposition from local citizen groups has led to a court hearing (which was to have been today but has been postponed until February 8) on whether a temporary restraining order should be imposed to prevent operation of the facility. WTI has verbally agreed not to commence the trial burn or limited commercial operation until after the hearing.

ISSUES: The immediate issue is whether the WTI risk assessment prepared by EPA is adequate. This assessment, which by EPA policy is site-specific, showed that risks from the incinerator emissions (including emissions of dioxins) were within the range of risks historically considered acceptable by EPA. A longer term issue, which will require Agency-wide consultation, is how to devise a national policy regarding indirect exposure assessments for dioxin. This could have major implications for numerous EPA programs and could require a reevaluation of risks at many other sources of air emissions.

The risk assessment was prepared by the Region 5 office for the WTI facility. It focused primarily on risks associated with inhalation of the emissions, an approach which the Agency has historically used in evaluating air emissions. Region 5 concluded that indirect exposure routes (e.g., consumption of food raised in the area) were not likely to present significant additional risk based on a draft dioxin risk assessment for another combustion unit.

The Office of Research and Development (ORD) has a draft document, "Estimating Exposures to Dioxin-Like Compounds," which describes a methodology and provides an example of how indirect exposures, such as exposures from soil contamination and subsequent food chain contamination resulting from air emissions, can be evaluated.

Greenpeace used a specific example from this document to attempt to show that risks from consuming products from cattle raised near the incinerator can be 10,000 times greater than the risks from inhalation and are, therefore, unacceptable. The use of the example from the ORD report in the WTI situation is not appropriate, since the risks from air emission sources are very highly dependent on site-specific factors. However, a preliminary

assessment done by ORD does show that risks from beef and milk consumption can be 1,000 times higher than risks from inhalation near the WTI facility. It is important to note that, even using the worst-case indirect exposure analysis, the risks to the public during the trial burn period would be within what has been considered acceptable. The Greenpeace submittal also contains other analyses that show very high risks. However, both the Office of Solid Waste and Emergency Response (OSWER) and ORD agree that these analyses use extreme, unrealistic assumptions.

There are very significant implications associated with adopting risk assessment procedures based on indirect exposure routes for air emission sources. These analyses have a much greater degree of uncertainty because they involve a large number of exposure-related assumptions. If conservative assumptions are used for all exposure related parameters, risk estimates can be unrealistically high. The analyses of the WTI situation show that many air emission sources could be affected if EPA were to adopt the indirect exposure analysis procedures in assessing exposure risks.

ACTIVITIES UNDERWAY: My staff met with ORD on Friday, January 22 to discuss the analytical steps that must be undertaken in preparation for the upcoming District Court hearing. In addition, my staff is reviewing all of the risk assessment efforts related to WTI and the ORD report on dioxin exposures to ensure that any differences can be explained. Staff are also working with ORD to collect relevant data on dioxin emissions from different sources and on risk assessments which have been done on those sources. Finally, the Agency must address the court's question concerning why we need the trial burn data in order to prepare a more comprehensive risk assessment.

For the immediate future, we have scheduled a technical meeting on Monday, the 25th, which will include personnel from Region 5 to review all of the risk assessment issues. We will then hold a management level meeting on Tuesday, the 26th, to develop recommendations on how we should proceed.

We are also developing an in-depth briefing for you on the WTI issues. We will work with your staff to schedule the meeting. Please let me know if you have any questions or need any other information.

cc: Linda Fisher
Dick Morgenstern
Mike Vandenbergh
Loretta Ucelli
Diane Regas

BIO GRO SYSTEMS

Sludge Management • Specializing in Beneficial Use

June 21, 1993

Mr. Bill Rheinlander
Division of Environmental Protection
Office of Waste Management
1356 Hansford Street
Charleston, WV 25301

Re: Proposed Sewage Sludge Management Regulations (Title 47, Series 38D)

Dear Mr. Rheinlander:

Bio Gro Systems, Inc. operates biosolids land application projects throughout the United States. Our experience includes permitting land application sites, transporting and land applying biosolids on agricultural land and reclamation sites, managing field operations, and performing monitoring and reporting for land application programs. We also have experience permitting and operating biosolids processing facilities and then marketing and distributing the end products.

We offer the following comments on the proposed Sewage Sludge Management Regulations:

47-38D-2 Definitions

2.21 For clarity purposes, the definition of "Importer" should be revised to read "means any person bringing in or receiving sewage sludge from any source outside the State of West Virginia for the purpose of processing."

2.44 "Stabilization" - This term should be deleted from the proposed regulations since 40 CFR Part 503 does not specifically address stabilization but rather lists pathogen and vector attraction reduction requirements. Also biosolids can be stabilized by other methods than the decomposition of organic matter (e.g., lime stabilization).

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Bio Gro Systems, Inc. • 180 Admiral Cochrane Drive • Suite 305 • Annapolis, Maryland 21401 • (410) 224-0022 • Fax (410) 224-0152

3.2 Sewage Sludge Land Application Siting Restrictions and Location Standards

Overall Comment:

To be consistent with 40 CFR Part 503, this section should contain wording that these requirements do not apply to sewage sludges or products derived from sewage sludges which meet the pollutant concentrations in 503.13(b)(3), the Class A pathogen requirements in 503.32(a), and one of the vector attraction reduction requirements in 503.33(b)(1) through (b)(8). EPA's justification for not imposing these types of restrictions is outlined on page 9328 of the Part 503 Preamble which states:

"The rationale for not imposing the general requirements and management practices on bulk sewage sludge and sewage sludge sold or given away in a bag or other container for application to the land is that the sewage sludge that meets the three identified quality requirements is a valuable commercial product. Because of this, EPA concluded that the probability of improper application of the sewage sludge is low and the additional requirements are not necessary to protect public health and the environment. In addition, the Agency determined that over-application of the sewage sludge will not occur because over-application reduces crop yield, which nullifies the main reason to apply sewage sludge to the land in the first instance. The Agency concluded that when the sewage sludge meets the three quality requirements, it is a fertilizer material and should be treated similarly to other fertilizers."

The proposed rule offers no incentives for producers to improve their sludge quality and further reduce the pathogen content of their sludges.

3.2.1.a. This sentence should be amended to insert the words "of sludge" after the word "runoff" since runoff in itself may occur without the actual transport of sludge.

3.2.1.b. To be consistent with the federal regulations [503.14(b)] and simplify the number of standards being imposed, we suggest the buffer zone be changed to 33 feet (10 meters).

"Lakes" should be added to the list of surface water features. The language "or other collection points for surface water" is subject to wide interpretations and should be deleted from the regulations. Specific

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buffer zones for other features should be listed in the regulations. We suggest the following:

Intermittent streams/sediment and erosion control ponds - 25 ft.
Agricultural drainage ditches with adjoining land slopes $\leq$ 2% - 10 ft.
Agricultural drainage ditches with adjoining land slopes $\geq$ 2% - 25 ft.

3.2.1.f. This provision should be revised to read "Land within 100 feet of an adjacent property owner's property unless the adjoining landowner consents in writing to a reduction or waiver of this requirement." This is a common practice in many states as it helps reduce the area of a farmer's field which must be fertilized with other materials if the adjoining property owner does not object to application closer to their property line. The current provision would also negatively impact two adjoining farmers who are both having biosolids applied to their property.

3.2.1.g. This requirement is too broad. A specific buffer zone to sinkholes such as 50 feet as required by Virginia regulations should be established rather than totally prohibiting land application.

General Many states allow reductions in buffer zones if biosolids are injected or surface applied and incorporated the same operating day since these operations minimize the potential for runoff and address aesthetic concerns. For this reason we suggest the following wording be added to this section of the regulations: "The stated buffer zones to adjacent property boundaries, roadways, surface waters, and drainage ditches may be reduced by one-half (50%) for subsurface application (includes same day incorporation)."

To add flexibility to the regulations, the Department may also want to consider including the following language regarding buffer zones: "The Department has the authority to increase or decrease the stated buffer zones based on site specific features." For example, this would allow the use of biosolids to establish vegetation on highway construction or reconstruction projects.

3.2.1.h. This requirement should be revised to read "Land that has been tested and determined to have a pH of less than 5.5 unless the sludge which will be applied contains sufficient lime to raise the soil pH to a

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level of 5.5 or greater." 40 CFR Part 503 does not contain pH adjustment requirements because the metal loading limits are designed to be protective even under acid soil conditions. We support a minimum pH level of 5.5 because levels less than this is a poor agronomic practice.

3.2.1.i. This requirement should be revised to read "Land that has a slope greater than 15% except as otherwise approved by the Department" since slopes greater than 15% may be encountered on reclamation projects and sufficient sediment and erosion control measures are used to prevent movement of biosolids into surface waters.

3.2.1.j. This requirement should be revised to read "Land that has seasonal high groundwater table less than 2 feet from the surface at the time of application" to clarify that these sites can still be used for biosolids applications during suitable periods of the year. Fields which contain soils with seasonal high water table conditions are currently farmed and fertilized in the State and therefore these sites should not be prohibited from receiving biosolids applications.

3.2.1.l. These limits may be appropriate for designing septic tank drainfields but should not be applied to the land application of biosolids since these are significantly different management practices.

This requirement also should be deleted from the regulations since 1) biosolids must be applied at rates not to exceed the nitrogen requirement of the crop to be grown, 2) biosolids have soil conditioning properties which help improve the tilth of both light (sandy) soils and heavy (clayey) soils and 3) biosolids are an organic (slow release) fertilizer. The state does not restrict farmers from farming these soils with commercial fertilizers and animal manures and therefore should not single out biosolids from being applied to these soils especially in light of the beneficial properties of this material. At a minimum, case-by-case approval of these sites should be allowed.

3.3.1.d.A. A provision to allow other types of liners (i.e., synthetic liners) should be included.

3.3.1.d.C. This requirement should be deleted since the design already provides sufficient protection through a concrete surface with a leachate collection network and a liner beneath the concrete.

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4.2.1.g. This requirement should be reworded to read "The content of heavy metals and pathogens as required by 40 CFR Part 503." This wording will define to the applicant the specific metals and pathogens which must be tested. Vectors should be deleted from this requirement since biosolids may attract vectors but they do not contain vectors. Other toxins would be covered under federal waste regulations and PCB regulations.

4.2.1.j. This requirement should be removed from this section (4.2.1.) and moved under section 4.2.2. since these requirements do not apply to land application sites.

4.2.2.b. Since a copy of these requirements were not included with the proposed rule, Bio Gro cannot provide comments on their applicability at this time.

4.2.3. Land Application Permit Requirements

Overall Comment:

To be consistent with 40 CFR Part 503, this section should contain wording that items a., c. through g., i., j., and n. do not apply to sewage sludges or products derived from sewage sludges which meet the pollutant concentrations in 503.13(b)(3), the Class A pathogen requirements in 503.32(a), and one of the vector attraction reduction requirements in 503.33(b)(1) through (b)(8). The reasons these restrictions should not apply were discussed earlier in our comments (see 3.2 Overall Comment).

4.2.3.d. An agreement between the preparer of the sewage sludge and the landowner should not be required unless the preparer is also the land applier. Individual agreements should be required between the preparer and the land applier and between the land applier and the landowner since these are the parties which have direct contact with each other. The sludge preparers responsibilities are clearly outlined by Federal law and do not need to be documented in writing with a third party (the landowner).

4.2.3.e. The requirement to describe "future" uses of the land application site should be deleted from the proposed regulations. "Future uses" of land are often unknown and the landowner will already be signing an agreement with the sludge applier which outlines his/her responsibilities to comply with access and cropping restrictions if biosolids undergoing Class B pathogen reduction are applied.

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4.2.3.g. This requirement should be dropped from the proposed regulations since past fertilizer applications only have relevance just prior to the growing season when the biosolids will be applied. In most cases, the information will be obsolete by the time the permit application is approved and the biosolids application is scheduled into the farmer's existing operation.

4.2.3.n. This requirement should be deleted from the proposed regulations. As noted in our comments above, 40 CFR Part 503 does not require pH adjustment prior to biosolids application or pH maintenance following biosolids applications. The cumulative metal loading limits required by the 503 Regulations are designed to protect human health, animal health and the environment even under acid soil conditions. In addition, biosolids applied metals have been shown to be less available over time. Although unnecessary, if any type of pH requirement is included in the state regulations, it should be only at the time the biosolids are applied which is the time when they are most likely to be available.

47-38D-5 General, Processing Facility, and Land Application Permit Requirements

5.1.1.a. The word "vectors" should be deleted since vectors are not contained in sewage sludge. Vectors should only be used in the context of vector attraction reduction requirements.

5.1.1.b. The frequency requirement for biosolids analyses should be no greater than monthly unless screening data shows a biosolids quality problem. The proposed regulations should also have a provision for decreasing the monitoring frequency down to the 503 requirements after the biosolids have been monitored for two years at the State required frequency.

47-38D-6 Fee Assessment

6.1. The words "and to cover the costs of future environmental remediation" should be deleted from the proposed regulations since it suggests future environmental remediation is likely or certain. On the contrary, Bio Gro has been unable to determine any environmental remediation problems which have been caused by regulated sewage sludge land application projects. The proposed regulations provide for environmental protection through biosolids testing and

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required field management practices. The federal regulations also include "Duty to mitigate" requirements which place the responsibility for remediation on the responsible party rather than the State.

6.2 The proposed regulations should clearly state that the funds will be used exclusively for the sewage sludge program.

6.3.1. For reasons mentioned in 6.1. above, this requirement should be deleted from the regulations.

6.3.2. The fee system should be established based on an evaluation of the anticipated costs of managing the sewage sludge program. Any funds not used should be set aside to pay for unanticipated costs and/or research to improve the sewage sludge program in the state. Finally, the fee system should be based on dry tons rather than wet tons to be equitable to producers of liquid sludges (many of which will be small treatment plants with limited funds available for payment of such fees). As noted earlier, the dry ton fee should be based on a realistic estimate of the costs of managing the sewage sludge program.

General Comment

Bio Gro Systems suggests that the newly adopted term "biosolids" be substituted for the term "sludge" when new West Virginia rules are issued. Enclosed is a guidance statement from the Water Environment Federation on the use of the term biosolids.

Bio Gro Systems appreciates this opportunity to comment on the proposed West Virginia regulations. If you have any questions about these comments, please contact us at (410) 224-0022.

Sincerely,

Jeffrey G. Faust
Research & Compliance Coor.

Bruce E. Bailey /kw
Bruce E. Bailey, CPSS
Project Development

kw:JGF078
cc: Jane Forste, Cal Miller, Bob Pepperman, Bio Gro Systems, Inc.

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Water Environment Federation
Formerly Water Pollution Control Federation

GUIDELINES FOR DETERMINING USE OF WORD "SLUDGE" OR "BIOSOLIDS"

The following guidelines, developed by the Biosolids Public Acceptance Task Force, are based on the biosolids policy approved by the WEF Executive Committee last January.

The Federation defines biosolids as "primarily organic solid product produced by wastewater treatment processes that can be beneficially recycled." The key words in this definition are "product," "wastewater treatment," and "beneficially recycled." The overall intent of the Biosolids Public Acceptance Task Force was to continue referring to untreated material (commonly known as raw sludge) as "sludge;" material that has been treated and made into a product that can be beneficially recycled would then be "biosolids."

A material is a biosolid if it meets U.S. Federal criteria for beneficial use. States can impose additional standards on biosolids.

If we look at a wastewater treatment process, anything within the treatment plant process leading up to the development of the product should be referred to as "sludge." Therefore, unless the material is a product, it would be characterized as sludge.

In a treatment plant, one might think of the following examples: Any pumps transferring untreated sludge would be referred to as "sludge pumps." A treatment plant process such as an activated sludge process would continue to be called "an activated sludge process" and produce sludge. An anaerobic digester would be treating sludge; however, the end product coming from the digestion process could be biosolids since it is a product that may be eligible for beneficial use. If dewatering follows such processing, it would be dewatering biosolids (e.g. a biosolids filter press or a biosolids centrifuge).

In taking the treated end product ready for beneficial use and putting it into a truck for distribution to land application, the truck would be referred to as a "biosolids truck." Likewise, any of the end uses would be considered application of biosolids such as agricultural application of biosolids or forest application of biosolids. One could even have the land filling of biosolids or incineration of biosolids.

When dealing with an untreated material (sludge) that is going through a composting operation, the operation would be a treatment facility handling sludge. However, the end product would be composted biosolids. If the composting was handling digested biosolids, it would be composting biosolids, and the end product would also be composted biosolids.

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GASTON CAPERTON
GOVERNOR

State of West Virginia
Department of Tax and Revenue
TAX DIVISION
P. O. Box 2389
Charleston, WV 25328-2389

JAMES H. PAIGE III
SECRETARY

June 22, 1993

Office of Waste Management, DEP
Attn: Bill Rheinlander
1356 Hansford Street
Charleston, WV 25301

RE: **Comments of the Department of Tax and Revenue on the "Sewage Sludge Management Regulations" filed by the Division of Environmental Protection**

Dear Mr. Rheinlander:

This is in reference to the implementation of the recently enacted S. B. No. 288 and the regulations filed by your division pertaining to this legislation. This legislation establishes a program for the regulation and management of sewer sludge and expressly makes sewer sludge subject to the same tipping fees as the disposal of other solid waste.

Apparently there were issues raised during the legislative session concerning the taxation of the sewer sludge, such as whether the sludge would be taxed on a wet or dry basis, and whether a tax credit would be given for compost that is later removed from the landfill. The Department of Tax and Revenue was not part of these discussions. Therefore, we are unfamiliar with these issues or the options that are available, nor does the statute provide us with any particular guidance on these issues.

After meeting with Ann Spaner and Thomas Gillooly to discuss this legislation and the settlement of the landfill case, it was our understanding that these issues concerning the taxation of sewer sludge would be resolved in the regulations recently filed by your division. Upon review of the proposed regulations, we did not find any particular guidance on the treatment of sewer sludge other than it was to be taxed in a manner similar to other solid waste.

Since neither the statute or the regulations filed by your division provide any guidance on the issues raised by the taxation of sewer sludge, and our Department certainly has no expertise in determining such matters, we are not taking any position on how sewer sludge is to be taxed. As directed in the regulations, sewer sludge will be taxed in a manner similar to all other solid waste and no special treatment will be provided. This means that sewer

sludge will be taxed based on the tons crossing the scales and no credit will be allowed for the removal of any compost from the landfill. We do not feel that it is the responsibility of the Department of Tax and Revenue to allow any different treatment of sewer sludge unless directed to do so by the statute or regulations. It is our opinion that it is the responsibility of your Division to make decisions on such issues and to provide guidance to the Department of Tax and Revenue in the regulations.

If you wish to discuss this matter further, please contact Lydia S. McKee, General Counsel, Revenue Operations at 558-8730.

Sincerely,

Richard E. Boyle, Jr.
Assistant Secretary/
Assistant Tax Commissioner

cc: James H. Paige, III
Secretary
Department of Tax and Revenue

Thomas Gillooly
Department of Commerce, Labor and Environmental Resources

David Callaghan
Director
Division of Environmental Protection

Ann Spaner
Deputy Director
Division of Environmental Protection

Sanitary Sewer Board
City of Fairmont
P.O. Box 1428
Fairmont, WV 26555-1428

Phone (304) 366-0540
Fax (304) 366-6242

June 18, 1993

WV Dept. of Environmental Protection
Office of Waste Management
1356 Hansford Street
Charleston, WV 25301

Attn: Bill Rheinlander

Dear Mr. Rheinlander:

The Fairmont Sanitary Sewer Board would like to offer the following questions and comments regarding the proposed Sewage Sludge Management Regulations Title 47, Series 38D:

(1) We concur with all comments submitted by Mike Johnson by letter of June 3, 1993 (copy enclosed) and offer the latter comments in addition.

(2) Economic impact will be realized from the rule particularly to the public at large. The financial burden for the City of Fairmont will be approximately $13,000 - $15,000 per year.

(3) What is the financial need to implement the proposed rule? How will these funds be utilized specifically?

(4) How much revenue is expected to be generated under the proposed fee structure? If available, exactly how was this figure calculated?

(5) Fees should be levied strictly on a dry mass basis. Fees levied on a wet mass basis places an undue and unequitable burden on some municipalities. A prime example would be a liquid sludge application program.

(6) What is the logic that produced a fee for wastewater plants with pretreatment programs that is double those with no pretreatment program? Facilities with pretreatment programs already incur a major financial burden to have harmful pollutants removed from the waste stream at the source as well as stringent analytical monitoring to verify the quality of the bioresiduals.

(7) Can these fees be passed directly to our users without rate modification approval from the Public Service Commission?

Respectfully submitted,

Bruce McDaniel
Utility Manager

cc: Douglas Amos

242-1526

DEPARTMENT OF COMMERCE, LABOR & ENVIRONMENTAL RESOURCES
DIVISION OF ENVIRONMENTAL PROTECTION
617 Broad Street
Charleston, WV 25301-1218

Gaston Caperton
Governor
John M. Ranson
Cabinet Secretary

David C. Callaghan
Director
Ann A. Spaner
Deputy Director

MEMORANDUM

FAX TRANSMITTAL

To: GREG SHILLITO	# of pages 1
Co. MUB	From: BRUCE MCDANIEL
Date 6/8/93	Co. Sanitary Sewer Board
Fax # 292-1526	Phone # (304) 366-0540
Comments: FYI	Fax # (304) 366-6242

TO: Richard Cooke, Assistant Chief
Office of Waste Management

FROM: Mike Johnson, P.E., Assistant Chief
Construction Assistance Programs

DATE: June 2, 1993

SUBJECT: Comments on Sewage Sludge Management Regulations, Title 47, Series 38 D

We offer the following comments and recommended changes to the above-referenced regulations:

2.6 For sewage treatment facilities regulated under §20-5A, "Chief" should mean the chief of the Office of Water Resources.

2.12 Are sewage treatment plants, especially POTW's that treat septage or sludge produced by other POTW's or package treatment plants considered to be a "Commercial Solid Waste Facility"? If so, why?

2.25 Are sewage sludge land application sites considered to be landfills?

2.42 POTW's and other domestic sewage treatment facilities should be regulated under §20-5A and not under §20-5F, because this results in duplicative regulation. Will all new POTW's or privately owned domestic sewage treatment facilities be required to obtain a Solid Waste permit, and the approval of the Public Service Commission Solid Waste Division, in addition to an NPDES permit and a PSC Certificate of Convenience and Necessity for sewer facilities? Will solid waste siting requirements apply to POTW's?

3.2.1.h. Why can't sewage sludge be applied to soils with a pH of less than 6.2, since metal contaminants are already limited in the sludge being applied, and since the organic matter acts as a buffering agent and results in the soil pH being increased without lime addition?

3.3.1.c. This requirement cannot be met. Virtually all POTW's are located in the 100 year flood plain. Requirements should be the same as for the liquid-stream operations, which means the facility must be operational at the 25 year flood and protected from damage at the 100 year flood.

This, however, is in no way "...prevent(ing) the encroachment of flood waters upon the facility." This requirement would mandate floodwalls to be built around almost every existing and future sewage treatment facility, a requirement that will be physically impossible to construct in many places and extremely expensive at every location.

3.3.1.d. What is the precise and explicit definition of "land surface"? Does this definition include sludge drying beds (both conventional sand beds and synthetic media beds) that have here-to-fore been lined with a single layer of either 20 mil synthetic liner or 6 inches or more of reinforced concrete? Does it also include the sludge storage sheds that are located adjacent to sludge drying facilities, and are concrete lined and covered? Does it include concrete-floored composting buildings? Are other sludge handling facilities (belt press buildings, digestors, etc.) required to be similarly lined?

Current design practice is to provide either a concrete or synthetic liner under all sludge processing and storage areas, and to direct all drainage and process water that could possibly be contaminated back to the head of the liquid processing stream. Requiring a 2 foot clay liner in addition to a concrete cap will complicate design and construction and drive costs of buildings and other facilities up considerably, and provide little, if any, additional protection to the public or to the environment.

3.4.1. Refer to 3.3.1.d., above. Within the confines of a POTW, where all contaminated water is sent back to the head of the liquid process stream, no additional monitoring or treatment should be required, and such water should not be considered leachate.

4.1.2. POTW's are not the only facilities that exclusively treat domestic sewage, since package treatment plants serve a large part of our citizenry. All of these domestic or municipal sewage treatment facilities should be regulated through the NPDES permit.

4.2.2. Are those POTW's that occasionally accept and treat septage and/or sewage sludge produced by other POTW's or private, domestic facilities (i.e. package plants) exempt from this provision also? A significant number of POTW's currently provide such disposal services, but many may refuse if a separate solid waste permit is required. Since sludge produced by the septic tanks and package plants must be taken somewhere else for final disposal, a blanket exemption to this provision should be granted to all sewage treatment facilities regulated under the NPDES permitting system. Otherwise, the result will be a complete duplication of the existing NPDES process, with its attendant submittals and review effort. These requirements appear to apply to true solid waste facilities (i.e. commercial composters, landfills, etc.), and not to domestic wastewater treatment facilities.

4.2.3.a. Soil tests currently done by the WVU Extension Office do not include nitrogen testing. Nitrogen testing is accomplished by tissue analysis and other, non-soil, tests. How is nitrogen to be analyzed?

5.1.1.g. All reporting should be included on the DMR's submitted by the treating facility. Does this also mean that all facilities must now submit DMR's monthly (I certainly hope so!).

6.1. How are fees to be assessed, and when are they due? What are the penalties for non-payment?

6.2. What specifically are the fees to be used for?

6.3 What is the definition of "wet ton"? How will facilities that do not currently dispose of sludge be billed?

cc: L. Eli McCoy, Chief
Clifton Browning
Jerry Ray
Pravin Sangani

3029 Greenbag Road • Post Office Box 852 • Morgantown, WV 26507-0852 • 304-292-8443 • Fax 304-292-1526

June 18, 1993

Office of Waste Management
Mr. Bill Rheinlander
1356 Hansford Street
Charleston, WV 25301

Re: **Comments on the Sewage Sludge Management Regulations Title 47, Series 38-D**

Dear Mr. Rheinlander:

The Morgantown Utility Board offers the following questions and comments to the above referenced regulations.

The "Fiscal Note for the Proposed Rule", shows no changes in personnel or services for the Division of Environmental Protection. The fiscal note also indicates that there will be no economical impact on any state, local, or group of citizens. Where are the personnel going to come from to administer, run, and do the inspection and sampling required by these regulations? If no additional personnel are required then why are there fees attached to the land application of sewage sludge? The proposed fee structure will surely have an economic impact on the citizens who own a WWTP that land applies its stabilized sludge.

2.41 By the regulations definitions, all WWTP's that process sewage sludge, and all WWTP do process sludge, are now classified as solid waste facilities. Does this mean that all WWTP's must now comply with all solid waste facilities regulations?

3.2.1.1 Addresses soil permeability. This criteria would make sludge additions to strip mine areas, many are old and abandoned, very difficult. Typically these sites have little or no top soil, and very sparse vegetation. Permeability is most likely very high and would not meet the regulation's criteria. Sludge addition to these areas would only benefit these areas by supplying nutrients and organic matter which would increase the soil moisture retention. How is soil permeability to be measured? Is this to be run on every site? Will the DEP be running this test?

4.1.2 There are many facilities that produce sludge and are not POTWs. These include small package plants that are privately owned. Are these facilities exempt from these regulations, or must they also comply? Most of these small installations have septic haulers who remove the accumulated sludge. Are these haulers then going to be made to comply the with these regulations?

4.2.2 Some WWTP's accept sludge for processing from other sources, small package plants, septic, etc. Are these WWTP's then required to comply with the stipulations of Section 4.2.2?

6.2 Specifically, what is the Water Quality Management Fund? How is it to be used? How are we to be assured that this revenue source will only be used for its specific purpose?

6.3.1 Specifically, what is an environmental remediation fee? How is it to be used? How are we to be assured that it will be used for its specific purpose? Why are POTWs with pretreatment programs required to pay 100% more than those without pretreatment programs? Why are POTWs with pretreatment programs discriminated against? We feel that there is more of a risk of unsuitable sludge being land applied from a WWTP, or other source without a pretreatment program. WWTP who conduct a pretreatment program monitor and control those fractions of undesirable constituents of the sludge, where as nonpretreatment PTOWs do not control and may not even monitor their sludge.

6.3.2 How is the fee of $2.50 per wet ton derived? What benefits are the WWTP's getting for this fee? Are WWTP's that land apply liquid sludge also to pay this fee on a wet ton basis? What is meant by wet ton? A more logical method would be to use a dry ton basis.

General Comments to the Regulations:

Although the purported reason for these regulations was to exert some control of out of state sludge from being disposed of in West Virginia, these regulations fall far short of that intent. These regulation will without a doubt be a great burden to all in state WWTP who land apply their sludge. WWTPs have developed a land application, most without help or guidance from the DEP, in response to extremely high cost of land filling, and in accordance with the Federal EPAs policy of beneficial reuse of the sludge. Solids handling and disposal is without a doubt the most costly aspect of wastewater treatment. The proposed regulations and fees will only add to these costs. It is also factual that land application is the most ecologically sound disposal option for sludge management. Land application is also in most cases the most economical solution to sludge disposal . WWTP who land apply have been able to keep the cost of wastewater treatment down by land applying. This fee that is proposed will to a large extend nullify these cost savings and will have to be passed on the users of the WWTP.

At Morgantown, the Utility Board has operated a permitted land application program since 1986. This has been a very safe and well run program. Morgantown was one of the first in the state to develop a full sludge land application program. We have worked with the WVU Extension Service, and our local extension agents to develop a very well run, cost effective, and comprehensive land application program. These proposed rules will have very little influence on our program. The proposed fees will cost the taxpayers between $20,000 and $25,000 annually. This will be a significant cost increase in our WWTP operation, and will not benefit the Utility Board or our users, in fact they will only serve to increase the users sewer bill. The Utility Board formally request that these proposed fees be deleted from the proposed rules for those WWTPs which land apply.

Yours very truly,

MORGANTOWN UTILITY BOARD

Thomas E. Urquhart
General Manager

TEU/bap

JUNE 17, 1993

OFFICE OF WASTE MANAGEMENT, DEP
ATTN: BILL RHEINLANDER
1356 HANSFORD STREET
CHARLESTON, WV 25301

DEAR MR. RHEINLANDER;

The City of Elkins would very much like to comment on the Sewage Sludge Management Regulations, Title Number 47, WV Code 20-5F-2b. The proposed rule is very much in line with the Federal 503 Sludge regulations, although there are some discrepancies.

As a municipality, the City of Elkins main concern is with the Sludge Management Regulations is section 47-38D-6.3 Fee Assessment. According to the fees that are set in this section, a municipality is being taxed for land applying sludge. This cost will have to be place on the customer which does have an economic impact locally on the community.

If there needs to be a fee, it should be per dry ton of sludge. By placing a fee on the wet ton, the DEP is charging the city for water.

The City of Elkins hopes the State of West Virginia will take a look at this section of the proposed Sludge Regulations, and make the necessary changes.

Sincerely

Jimmy Hammond

Jimmy Hammond, Mayor

JDH/ llr

June 19, 1993.

Division of Environmental Protection
Office of Waste Management
Att: Bill Rheinlander
1356 Hansford Street
Charleston, WV. 25301

Reference to Title 47 Series 38 D, Sewage Sludge Management Regulations.

Comments for your consideration:

What method will be used to remove debris from Domestic Septage (2.19) before land application?

The odor was overwhelming for several weeks following the land application of sewage sludge from a distance greater than 2000 ft. I believe the distance between land application and an occupied dwelling (3.2.1.d) and the distance of property owners (3.2.1.f) should be <u>increased</u>.

I believe sewage sludge by weight (3.6.1) should be reduced to a maximum of 10% of the total weight disposed of at the landfill.

Are any costs to the users of sewage being considered, or do you foresee the fee assessment (6.3) passed on to the users by the producers of the sewage sludge?

Respectfully submitted,

Mrs. Mary Jo Prickett

Mrs. Mary Jo Prickett
Route # 2 Box 285
Morgantown, WV. 26505
(304)983- 2139.

Enc:1

Comments submitted to the Monongalia Solid Waste Authority at a Public Hearing on July 29. 1991.

July 29, 1991

COMMITTEE MEMBERS:

I have completed the reading of your comprehensive and siting plans.

What rules and regulations will be in place before sewage sludge and compost is land applied to insure that they are disease free?

Has new technology eliminated the nauseating, permeating odor emitted when the sun heats land-applied sludge?

I believe residents living in close proximity to land being applied with sewage sludge should be notified in advance.

I believe air quality should be monitored around sludge applications and composting facilities.

Your efforts to reduce, reuse and recycle should become profitable; thereby enabling you to reduce the future costs of garbage disposal.

Thank you for reading and considering my comments for the public hearing of July 29th, 1991, and the public hearing of July 9th, 1991.

Mrs. Robert Prickett

Mrs. Robert (Mary Jo) Prickett

Carey Technologies, Inc.

Since 1907

N-VIRO
N-Viro Energy Systems Ltd.

June 18, 1993

Mr. Bill Rheintander
Division of Environmental Protection
Office of Waste Management
1356 Hansford Street
Charleston, West Virginia 25301

RE: Proposed Sludge Regulations

Dear Mr. Rheintander:

Submitted for your review are Carey Technologies comments on the proposed sludge regulations. These regulations, as written, will severly limit West Virginia communities options for sludge disposal. In fact, these regulations promote minimal sludge treatment (disinfection and heavy metal reduction) followed by landfill disposal.

CAREY TECHNOLOGIES' COMMENTS ON PROPOSED SLUDGE REGULATIONS

2.13/2.14 - "Composting" should not be used as terminology. The terminology should reflect the new Federal 503 regulations. "P.F.R.P." or "E.Q.S." or "Class A" technologies are all terms that refer to a higher level of treatment.
This can include composting, Alkaline Pasteurization, or possibly pelletization. There are many other alternative technologies to composting, many are safer.
Does the definition of composting include N-Viro or do they recognize composting as an entirely different operation/process (which it is).
Similarly, "Composting Facility" means what? Can our operation be set up at another location in the same county and be considered part of the treatment plant or does it actually need to be connected. As P.F.R.P. treatment it could be argued that this was part of the wastewater treatment process.

2.25 - If a materials recovery facility does not include a composting facility, where would an N-Viro A.A.S.S.A.D. facility fall. Would it be considered a mixed waste processing facility?

2.33 - Sludge should be considered a recycled product after it has been subjected to an approved "Class A" treatment. At least with further restrictions (such as 50% solids content) this status should be attainable.

2.35 - How will incinerator ash be classified?

2216 Young Drive Lexington, KY 40505 ph. 606/266-2131 fax 606/269-6738

2.36 - This paragraph should include some of those technologies. "Alkaline Pasteurization" should be included. At this time there are only 8 In-Vessel composting facilities in operation in the country. There are over 30 Lime Pasteurization facilities.

2.44 - It does not appear that this article would allow lime sterilization to be performed, because when Lime Sterilization is wet it does give off offensive odors as does composted material. Alkaline Pasteurized material does not.

3.1 - Federal regulations set out a guideline for "Clean Sludge" or "E.Q.S." (exceptional quality sludge) with the intent to promote beneficial re-use. If the BIO-SOLIDS or products incorporating bio-solids are of a low enough contaminant level they are deemed safe enough for unrestricted sales. This will allow for the successful marketing of the final product. If the State of West Virginia would like to place more stringent requirements on these products, They might consider requiring a minimum of 50% dryness or a more restrictive fecal coliform count.

(3.1 con't) pH could also be a factor in this requirement. The N-Viro A.A.S.S.A.D. process is mentioned specifically in the E.P.A. 503 regulations as a E.Q.S. technology, where does West Virginia acknowledge this? (see E.P.A. 503 regulations attached).

3.2 thru 3.2.3. - These restrictions will eliminate the possibility of ever marketing sludge based products (even if generated locally) to the general public in the State of West Virginia. This is in direct opposition to the intent of the establishment of a "Clean Sludge" guideline. As this regulation is written, all technologies that seek to utilize the benefits of properly treated biosolids will fall under this restriction, regardless of the means by which the final product is produced or the final form that the product will take. Specifically:

3.2.1. This says "sludge will not be applied to land...". N-Viro Soil, or Alkaline Pasteurized Biosolids is a product and is not sludge.

3.2.1.e. - This will eliminate the possibility of the use of Alkaline Pasteurized Biosolids in Department of Transportation projects such as re-seeding after construction and for erosion control. This is one of the most exciting opportunities in the recycling of properly treated material.

3.2.1.g. - This restriction does not include any acceptable distance. If the run-off from the material is clean then this restriction would be unnecessary. There should at least be a table of acceptable distances and/or acceptable levels of contaminants in the runoff.

3.2.1.h. - This would eliminate the use of ALKALINE treated Biosolids on disturbed lands as a way of raising the pH. Such as around strip mines , construction sites and on reclamation projects. This seems to be intended for application of sludge that is acidic. It has been well documented that ALKALINE PASTEURIZED biosolids are an effective amendment product for raising the pH of lands like these. Even in one time applications.

3.2.1.i. - This would eliminate the use of these products for erosion control on slopes, a very appropriate use for some biosolids based products. This also has been documented.

3.2.1.k. - Again this would limit the use around strip mine areas (the areas in most need of soil amendment). N-Viro Soil, if blended with clay results in an acceptable topsoil material. It has a stable pH and exhibits the characteristics of soil.
Heavy Metals are bound in an insoluble metal hydroxide salt coating, much the same way as heavy metals present in any soil material. The contaminants are permanently bound (unless, as with native soils, they are heavily stressed with acid). N-Viro Soil has been used as landfill cover, structural/construction fill material, a soil amendment, ag-lime and fertilizer with no adverse affects to the environment.
Would this material (blended or unblended) qualify as soil that could be utilized to achieve this 20" requirement?
If so, then this restriction should not apply to land application of N-Viro Soil. (The U.S. E.P.A. has recognized Chemical Fixation as "the best demonstrated available technology to immobilize heavy metals".

(3.2.1.k. cont'd) Composting does nothing to immobilize heavy metals, in fact if the resulting compost is on the acidic side, heavy metals could continue to leach from this material indefinitely. Clearly the A.A.S.S.A.D. process deserves recognition above that of compost for land application for this reason.

3.2.1.l - This seems overly restrictive and should have other parameters, such as depth of topsoil, clay or bedrock. In addition just as above, N-Viro Soil should be blended with this material to make a better product.

3.2.3. - These Dry Ton limits should not be so low for all circumstances. This may work for ag. application, but in strip mine reclamation applications and in some landfill cover or maintenance applications this could prevent the goal from being achieved. This should have additional parameters allowing certain quality material greater leeway.

3.3.1.a. - This makes no provision for clean runoff and does not define what level of contaminants are acceptable/unacceptable. In addition if the processing site is located at the landfill (which is already lined, with a leachate collection system, then this is redundant.

3.3.1.d through 3.3.1.d.D. - These restrictions could unnecessarily prevent the recycling of Biosolids in the State of West Virginia due to cost. Again "Clean Sludge" or E.Q.S. Biosolids should be treated differently than extremely contaminated "Class B" materials. These restrictions may be written for in-vessel composting. They are extremely restrictive and overly protective. The result will be increased costs that will cause clean re-usable Biosolids to be dumped in a landfill for disposal. Again, there should be exceptions for material that has been treated to a safer level or for material that may be "safe" before treatment.

3.3.1.d.b. - If the installation were on solid rock, would a clay liner still be required? Solid rock is certainly more impenetrable.

3.3.1.d.c. - What exactly defines a "Leachate detection zone?"

3.3.1.d.D. - A final surface should also have the option of being 8" of Dense Graded Aggregate (compacted) and 4" of Asphalt as an alternate to the 6" of concrete.

3.4.1. - The question again comes up - N-Viro Soil (or A.A.S.S.A.D. pasteurized Biosolids) is not sludge, and water that comes in contact with it should not have to be handled in any special manner. This has been repeatedly tested-and proven. This product can be stored in the open indefinitely.

3.6. thru 3.6.1. - This regulation does not take into account final product that may be used as landfill cover. Some Class A processes (like the N-Viro Process) result in a final product that is no more sewage sludge than gasoline is crude oil or wastewater is clean effluent.

(3.6 thru 3.6.1 cont'd) If this material were to be judged based on 25% of the total waste disposed of at the landfill, then once again an opportunity to recycle biosolids will have been lost. There should be restrictions on the suitability of Biosolids derived products as landfill cover (such as 50% dryness, compaction or permeability, pH, and vector attraction) this restriction is far to broad to be sensible.

4.1.3. This seems to say that the operation could be placed at the sewage treatment plant. Is this true?

4.1.5. - This paragraph should allow for variances of permits-by-rule at the discretion of the State.

4.2.1.g. - This should read (....or final product)

4.2.1.h. - This is to restrictive for the sale of E.Q.S. material. This regulation will severely inhibit a marketing program for Class A or E.Q.S. products.

4.2.1.j. - This should read (...unless granted a variance by the State)

4.2.2. - Again, can the mixing operation for an A.A.S.S.A.D. facility be put at the wastewater treatment plant?

4.2.2.c.E and 4.2.2.c.F - These paragraphs should refer to "E.Q.S." or "P.F.R.P." or "Class A". There are other appropriate technologies and the word compost is not only a competitive advantage for compost system vendors, it is misleading.

4.2.2.c.H. - The N-Viro Process in Wheeling will use Fly Ash. This is not a "bulking agent". It is required for pH maintenance and for further drying. The definition of a bulking Agent should be clarified.

4.2.2.e.F thru 4.2.2.e.K - These regulations are written specifically for in-vessel composting systems. Not only do they fail to address other technologies they imply a preference from the State's perspective and are therefore unfair. They should be removed or amended appropriately.

4.2.3. - It is our understanding that under the Federal E.P.A.'s 503 regs. that P.F.R.P. processes such as the N-Viro A.A.S.S.A.D. do not require some of the regulations stated. In fact, N-Viro Soil is considered so safe that it is the only sludge based product available in the world that can offer Product Liability Insurance (through C.N.A. a national Underwriter). This at least demonstrates the level of safety that these products can achieve. (Please see attached 503 regulations, see note on page 8, 5th paragraph)

4.2.3.a. - If marketing a "Clean, E.Q.S., Class A" or other such treated final product this amount of information is unrealistic and will impede marketing efforts drastically.

4.2.3.c. - This is also overly restrictive. If the material qualifies as a clean material it is operationally impossible to provide this level of detail for every single end-use. These uses could be yards, maintenance on bare spots, construction sites etc. At the higher level

of treatment Biosolids derived fertilizers, ag-limes, and soil amendment products are generally much "cleaner" than commercial fertilizers. Commercial products do not have this restriction and if the Biosolids derived products cannot compete on a cost and convenience basis, they will not be purchased and the recycling program will fail.

4.2.3.f and 4.2.3.g - Sometimes the owner of the property does not know this information. This is impractical!

4.2.3.j. - N-Viro Soil is not sludge!

4.2.3.n. This is another reason to establish a mechanism for higher application rates of E.Q.S. products. It has been repeated demonstrated that Alkaline Pasteurized Biosolids, for one, can improve the pH of acidic soils indefinitely after only one application. Carey Technologies has achieved this on soils with a pH as low as 2.3 with applications of 70 to 100 dry tons per acre. (relatively little considering the resulting vegetation and improvement of water quality- no additional applications have been required.

5.3 this whole section should exempt E.Q.S. products or at least set guidelines for cleaner or diluted materials.

5.3.4. - N-Viro Soil has been cleared by the 503's to be spread on food chain crops.

6.3.1 and 6.3.2 These fees should be reduced according to the level of treatment that the material has undergone. Land Applying Class B liquid is not the same as a farmer using a registered fertilizer made from Biosolids that have under gone treatment from a class A technology. The use of a fee system to support inspection and fund research is good, however these fees are excessive and could prevent recycling from taking place due to the competitive bidding process (it could always be cheaper to dispose of in the landfill). In addition by applying these fees "across the Board" the State is contributing to the removal of any incentive that a generator may have to seek a higher and safer level of treatment for his/her Biosolids. What exactly is a material derived from sewage sludge? This needs to be defined. Why do smaller operations subject to less treatment pay less than operations with pre-treatment requirements?

6.6.3. - Municipalities and Landfills should be able to make cover out of their own products--particularly if these products can be used without further permitting--according to the 503 regs. mentioned in this document.

Appendix A - Again these rates are excessive. Specifically the frequency of monitoring for 1,500 to 15,000 and over 15,000 dry ton facilities. It could be estimated that a facility generating over 15,000 dry tons per year would spend over $150,000 in testing alone. If these guidelines are not reduced it will contribute further to higher costs, again reducing the realistic opportunities to recycle this valuable (if properly handled) resource.

We appreciate your review of our comments. Our goal is for West Virginia regulation to recognize sludges that have been treated to the highest level possible by allowing the beneficial reuse of the finished product.

Sincerely,

CAREY TECHNOLOGIES, INC.

Burgess Carey
Vice President

ENCLOSURES: Comments from Dr. Terry Logan, Professor of Soil Chemistry
Comments from Dr. Jeffery Burnham, Professor Medical College of Ohio
Comments from Mike Nicholson, National Project Manager N-Viro Energy Systems, Ltd.
Technical Information on N-Viro Soil (A.A.S.S.A.D.) Process

Agronomy Department
The Ohio State University
2021 Coffey Road
Columbus, OH 43210

June 9, 1993

Mr. George Carey, President
Carey Technologies, Inc.
2216 Young Drive
Lexington, KY 40505

Dear George:

Thank you for sending me a copy of the proposed sludge regulations for West Virginia. I am sorry that I have had so little advanced warning that they were coming or I would have been able to offer a more complete analysis. As you know, I cochaired the EPA Peer Review Committee that evaluated the original draft of the 503 rule, and I was a consultant to EPA in developing the revised rule. I am also working with Ohio EPA in revising our state regulations to conform to 503. It is clear from reading the West Virginia regulations that they are designed, and rightly so, to protect human health and the environment from PSRP (Class B) sludges that cant meet the more stringent 503 criteria for Exceptional Quality Sludges (EQS). My concern is that they will unnecessarily penalize any West Virginia treatment plant that wishes to produce an EQS product by lumping all sludge treatment technologies and sludge-derived products together. In fact, as the rule is presently written, there is no incentive whatsoever for West Virginia treatment plants ever to upgrade their technologies to produce a better product that can be recycled beneficially rather than disposed of. The whole intent of the EQS component of the 503 rule was to provide incentives to treatment plants to reduce metal levels in the sludge, achieve complete pathogen destruction, and stabilize the product by reducing the regulatory burden on these materials. By setting high quality standards that are quantifiable through testing, human health and the environment is protected and he product is available for beneficial use by farmers, horticulturists and for mine reclamation. The combination of restrictions in the West Virginia regulations and high user fees means that the advanced technologies available today to treat sludge will not be used in West Virginia, nor will high quality organic products be available for agriculture and reclamation.

My recommendation is that EQS sludge-derived products be treated separately in the regulations and that they be exempt from site-specific limitations except as required in the state for fertilizer, lime or manure. For example, I have no problem with a reclamation one-time use limit of 50 to 200 tons/acre of N-Viro Soil or an EQS compost for abandoned minespoil together with adherence to other reclamation requirements such as slope grading, seeding, etc. I also believe that EQS materials should have to be tested more frequently than a Class B sludge because we are placing the regulatory control on the quality of

the product not on use of the product. Because EQS materials do not need to be tracked in the field, they should be subject to lower user fees.

George, I hope that you are able to convince the West Virginia regulators that unnecessary restrictions on high quality EQS products are not in the best interests of the regulated community or potential users of these products.

Sincerely,

Terry J. Logan
Professor of Soil Chemistry

cc: Mr. Mike Nicholson, N-Viro Energy Systems, Ltd.

N-VIRO

N-Viro Energy Systems Ltd.

June 16, 1993

Mr. Bill Rheintander
Division of Environmental Protection
Office of Waste Management
1356 Hansford Street
Charlestown, WV 25301

Dear Bill:

I would like to comment on the proposed sludge regulations for the State of West Virginia. N-Viro Energy Systems applauds West Virginia DEP for accepting the 40 CFR 503 regulations. N-Viro, whose mission is to convert organic and alkaline waste materials into safe community acceptable products for the purpose of distribution and marketing, technically supports and encourages the incorporation of 40 CFR 503 sludge management practices into all state management plans. More specifically, N-Viro promotes the importance of "EQS" products and encourages sludge managers to implement programs that take advantage of technologies that produce exceptional quality products.

Technologies like pelletization, invessel composting, and advanced alkaline stabilization with subsequent accelerated drying, produce community acceptable, marketable, EQS products with proven markets and high consumer demand.

N-Viro, as a leader in the field of beneficial reuse, has a proven track record of developing distribution markets. N-Viro recognizes that in order for resource conservation and recovery to be effective and efficient products must be pulled by demand from the market place not forced upon the market or the general public because of over production by industry or a POTW. Products must be desirable, valuable, economical and made available at the time of demand not at the time of production. (This means community acceptable storage capabilities for inventory.) EQS products like pellets, compost and N-Viro Soil, have significant value added attributes and have established themselves in markets where the buying influence has evaluated them under the same considerations as alternative competitive products; i.e. fertilizers, peat and aglime. Examples of established products include Milorganite; pellets manufactured by the City of Milwaukee, WI, Comtil; compost marketed by the City of Columbus, OH, and N-Viro Soil marketed by the City of Toledo, OH, the City of Des Moines, IA, Syracuse, NY, AgOrganics, Inc. of Philipsburg, NJ, and products marketed by Carey Technologies of Lexington, KY.

If EQS products are to achieve market penetration and compete for market share in the private sector, they will have to be recognized by the state as products, not waste, and managed as such. If it is the divisions intent to adopt the 503 regulations, N-Viro strongly recommends the full adoption, which means that EQS products are separate from these regulations and managed as products for distribution and marketing. Also, technologies that produce these products should be spelled out in the regulations as they are the first line of communication with the industry and the general public. If West Virginia's intent is to move the industry to produce materials with the

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safest levels of metals, the highest levels of disinfection and stable community acceptable products, then it must provide the incentives to pursue technologies that have the capability to produce EQS materials.

I have several comments directly related to the regulations. I will try to summarize my comments.

1. The state must recognize Exceptional Quality Sludge technologies as well as separate EQS products for West Virginia. These products will need specific distribution and marketing guidelines. However, these plans should be approved under separate cover (see enclosures: N-Viro Soil Distribution & Marketing plan for the State of Ohio, N-Viro Soil Distribution & Marketing plan for the State of Michigan and New York State Sludge Beneficial Use Manuals).

2. The text of the regulation is confusing as it implies the term "composting" as the treatment process. Composting is a biological process of treating sludge but is only one of seven or eight processes to treat and handle organic waste. Also, compost technologies may or may not create an EQS PFRP product. I suggest using terms like "treatment process or sludge conversion technology". Further division between EQS products and all other qualities of "residual biosolids".

3. Definitions should be expanded to include the following:
EQS products
Residual Biosolids
Class A treatment processes
Class B treatment processes

4. 3.1 - Need statement excepting EQS products from further regulations.

   3.2.1.b Materials with sufficient $CaCO_3$ buffering composting should be exempt from this rule.

   3.2.1.1 Logan must address

   3.2.3 Exemption for EQS materials

   3.3.1.d Must be addressed by environmental engineer. Recommend consultation with Dr. Doug Borgatti.

   4.2.2. cE Example of point number 2 (take out reference to compost) ie. A description of the ultimate use for the finished EQS products or residual biosolids materials ..etc.

   4.2.2.cF Take out word compost. Use EQS product or residual biosolids.

   4.2.2.eG - 4.2.2.eJ All parameters are specified to compost applications. The state should either be less specific and more general as relates to specific technologies and call for specific parameters to be spelled out in each permit application or list parameters for all sludge conversion technologies.

4.2.3d EQS products must be exempt

4.2.3e EQS products must be exempt

4.2.3f EQS products must be exempt

4.2.3h EQS products must be exempt

4.2.3i EQS products must be exempt

4.2.3j EQS products must be exempt

4.2.3l EQS products must be exempt

4.2.3m EQS products must be exempt

4.2.3n EQS products must be exempt

Thank you for the ability to respond during this time period. Please feel free to contact me as I can further comment or perhaps make recommendations to other N-Viro consultants regarding these issues.

Sincerely,

Mike Nicholson

Michael G. Nicholson
National Product Manager

MGN/tl

Consultants: Dr. Doug Borgatti, Mid-Atlantic N-Viro
David Sloan, N-Viro Soil South
Dr. Jeff Burnham, Medical College of Ohio
Dr. Terry Logan, Ohio State University
Neil Webster, Webster Environmental & Assoc.

Medical College of Ohio **Department of Microbiology**

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3000 Arlington Avenue
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419-381-4323
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MEMORANDUM

TO: Mr. George Carey
President, Carey Technologies

FROM: Jeffrey C. Burnham, Ph.D.
Professor, Medical College of Ohio
Consultant, N-Viro Energy Systems, Ltd.

DATE: June 14, 1993

SUBJECT: Sludge rules in the State of West Virginia

Thank you for informing me of the pending Title 47-Series 38D rules in the State of West Virginia concerning the treatment and usage of municipal wastewater sludges. I wish to respond because I certainly can understand why the rule makers in that state would want to restrict poorly treated sludges, particularly those that are transported into their state from other areas of the country. What I can't understand is their apparent lack of recognition of well processed sludge products that do meet the 1993 USEPA's 503 rule for "Exceptional Quality Sludges" (EQS).

I recently had the opportunity to address this same issue in the legislature of the State of Ohio and I testified (see attached statement) that interstate transport of sludges should be restricted to only the highest quality sludge products. There is no excuse for one state passing off its waste products to another state. The new sludge regulations make it possible for state legislators to rationally restrict this interstate transport to nationally defined high quality sludge products, i.e.., the EQS standards.

In addition, because of this testimony, I was invited to participate in an interview program on the Public Broadcast System television program entitled "Making Peace With Nature" in which I was asked to address this same issue about sludge use on lands. I am having a video tape addressing this program and a week's earlier program with an Ohio legislator mailed to you so that it could be forwarded to the staff of the Division of Environmental Protection (DEP). I strongly make the point that regulators and legislators need to recognize the value of having a defined high quality sludge if they are going to support land application programs in their states.

I have the following specific comments:

1. Interstate transport of sludges into West Virginia should be restricted to only sludge products that meet the USEPA's EQS standard for metals, microorganisms and vector control. If an outright ban is not proposed on interstate sludge transport I would recommend that to discourage other states from dumping their

sludges in WV high fees should be collected on any sludge coming into WV not meeting this EQS standard.

2. The WV rules need to support the concept of beneficial reuse of resources such as properly treated and stabilized municipal sludges, especially those that are produced within their own state. The WV rules should not penalize EQS sludge land application programs when these are produced from WV communities. I strongly believe they should encourage use of these products. Fees should be established for those sludges that do not measure up to this standard which will gradually force sludge processors to meet the highest standards.

3. Land application restrictions for EQS sludges should be limited to those addressed in the 503 rules, e.g.., no application on frozen ground. Some of the concerns addressed specifically in section 47-38D-3 such as no application with 50 feet of a federal or state highway is not reasonable given the excellent reclamation and reconstructive soil properties of a granular EQS sludge. Also N-Viro Soil has been used to advantage on steep slope intermediate cover of landfills (i.e.., Middlesex, NJ) to help prevent erosion of the slope and to help establish a grass cover.

4. DEP needs to simplify the regulations as they are presented by setting up a clear dichotomy for EQS sludge products versus non EQS sludges or sludge products. Most of the restrictions in this 38D rule would be unnecessary if land application programs were limited to EQS sludges. If WV desires the option of allowing the application of lower quality sludges then all these restrictive rules in Title 47-Series 38D should specifically address all sludges of less than EQS quality.

5. If WV DEP believes additional restrictions are desirable on sludges, including even EQS sludge products then consideration of a minimal percent solids, e.g.., 50%, increases the stability of the product and increases the variety of uses the product can meet. In addition WV could require that all sludge products demonstrate that they can be stored without adverse effect with regard to odors and microorganism regrowth for a period not less than 60 days. This would have to be demonstrated to the satisfaction of the state sludge coordinator or similar DEP official for each sludge processor within WV. Failure to meet such standards would trigger the fee structure described above (item 2) for sludges less than EQS.

I believe the intent of my comments is clear in the 5 items above. The WV DEP should be encouraging the use of high quality municipal wastewater sludges because of their safety and value in many markets including agriculture, reclamation, soil remediation and landfill cover. If there are questions about my comments I will be pleased to discuss them at your convenience.

Thank you for the opportunity to address this most important issue.

xc: J. Patrick Nicholson, CEO, N-Viro Energy Systems, Limited
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