

WEST VIRGINIA
SECRETARY OF STATE
KEN HECHLER
ADMINISTRATIVE LAW DIVISION
Form #6

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OFFICE OF WEST VIRGINIA
SECRETARY OF STATE

NOTICE OF FINAL FILING AND ADOPTION OF A LEGISLATIVE RULE
AUTHORIZED BY THE WEST VIRGINIA LEGISLATURE

AGENCY: Division of Environmental Protection TITLE NUMBER: 47

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 Regulations

THE ABOVE RULE HAS BEEN AUTHORIZED BY THE WEST VIRGINIA LEGISLATURE.

AUTHORIZATION IS CITED IN (house or senate bill number) SB 1005

SECTION 64-3-17(m), PASSED ON 3/16/94

THIS RULE IS FILED WITH THE SECRETARY OF STATE. THIS RULE BECOMES EFFECTIVE ON THE

FOLLOWING DATE: 6/1/94

Roger T. Hall
David C. Callaghan, Director
Division of Environmental Protection

TABLE 3

MAXIMUM ALLOWABLE SOIL CONCENTRATIONS

Metal	Concentration (mg/kg)
Arsenic	5.7
Cadmium	1.4
Chromium	140.0
Copper	140.0
Lead	35.0
Mercury	2.0
Molybdenum	2.5
Nickel	28.0
Selenium	5.0
Zinc	350.0

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(Plus all the volunteer
help we can get)

FAX: (304) 558-0900

March 18, 1994

Bill Brannon
Natural Resources
Ofc. of Waste Management
1201 Greenbrier St.
Charleston, WV 25311

SB 1005 authorizing, **Title 47, Series 38D, Sewage Sludge Management Regulations**, passed the Legislature on **March 16, 1994**. It is now awaiting the Governor's signature.

You have sixty (60) days after the Governor signs SB 1005, to final file the legislative rule with the Secretary of State's office. To final file your legislative rule, fill in the blanks on the enclosed form #6, the "Final Filing" form and file the form with our office with a promulgation history of the rule. Authorization for your legislative rule is cited in **SB 1005** section **64-3-17(m)**. The agency may set the effective date of the legislative rule up to ninety (90) days from the date the legislative rule is final filed with the Secretary of State's office. Please have an authorized signature on the bottom line.

*****IMPORTANT: IF YOUR AGENCY HAS COMPLETED THE LEGISLATIVE RULE ON A WORD PERFECT OR WORD PERFECT COMPATIBLE COMPUTER SYSTEM THAT USES A 3 1/2" OR 5 1/4" DISK, YOU MUST SUBMIT A CLEAN COPY, WITH ALL UNDERLINING AND STRIKE-THROUGHS TAKEN OUT, TO OUR OFFICE WHEN FINAL FILING THE RULE. STATE ON THE DISK THE FORMAT THE RULE IS IN AND THE TITLE IT IS FILED UNDER. THIS WILL MAKE IT QUICKER FOR US TO ENTER YOUR RULES ON THE LEGISLATIVE DATA BASE. REMEMBER THE TEXT OF THE COMPUTER FILED RULE MUST BE IDENTICAL - WORD FOR WORD, COMMA FOR COMMA, WITH ALL UNDERLINING AND STRIKE-THROUGHS TAKEN OUT, AS THE HARD COPY AUTHORIZED BY THE LEGISLATURE.**

After the final rule is entered into the legislative data base, the rule will be sent to the agency for review and proofing. Following confirmation or corrections, as the case may be, the Secretary of State shall submit to the agency a final version of the rule for their records.

If you have any questions or need any assistance, please do not hesitate to call our office.

Thank You
Administrative Law Division

Promulgation History For

Rule Name: Sewage Sludge Management Regulations

Rule Title: 47 CSR 38D

Date of Notice of Public

Hearing/Comment Period on Proposed Rule: 5/24/93

Date of Public Hearing or Close of Comment Period: 6/23/93

Date Agency Approved Proposed Rule Filed

with the Legislative Rule Making Review Committee: 7/8/93

Date Revised Agency Approved Proposed Rule Filed

with the Legislative Rule Making Review Committee: 11/5/93

Date of LRMRC Approval: 1/12/94

Date Rule Modification of Proposed Rule Filed: 1/21/94

Rule Authorized by: SB 1005, Section 64-3-17(m)

Date Passed Legislature: 3/16/94

Date Governor Signed: 4/6/94

Date of Final Filing and Adoption of a

Legislative Rule Authorized by the West Virginia Legislature: 4/29/94

Date Rule to become Effective: 5/1/94

FILED

TITLE 47
LEGISLATIVE RULES
DIVISION OF ENVIRONMENTAL PROTECTION

MAY 13 3 46 PM '94

OFFICE OF WEST VIRGINIA
SECRETARY OF STATE

SERIES 38D
SEWAGE SLUDGE MANAGEMENT REGULATIONS

§47-38D-1. GENERAL.

1.1. Scope and Purpose. -- This legislative rule establishes requirements for the permitting 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. -- May 13, 1994

1.4. Effective Date. -- June 1, 1994

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

§47-38D-2. DEFINITIONS.

The following definitions shall apply to this rule 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 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 W. Va. Code §20-5F.

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.

2.7. "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 (70%) by weight of the materials coming into the commercial recycling facility.

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

2.10. "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. "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. "Director" means the Director of the Division.

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

2.14. "Division" means the Division of Environmental Protection.

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

2.17. "Importer" means any person receiving sewage sludge from any source whatsoever for the purpose of processing .

2.18. "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. "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. "Landfill" means any solid waste facility for the disposal of solid waste on land. Such facility is situated, for purposes of W. Va. Code §20-5F, in the county where the majority of the spatial area of such facility is located.

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

2.25. "Open dump" means any solid waste disposal which does not have a permit under W. Va. Code §20-5F, or is in violation of state law, or where solid waste is disposed in a manner

that does not protect the environment.

2.26. "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 any legal entity whatever.

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

2.28. "Publicly owned treatment works" or "POTW" means any device or system used in the conveyance and/or treatment (including recycling and reclamation) of municipal sewage or industrial waste of a liquid nature which is owned by a state or municipality as defined by section 502 (4) of the Clean Water Act, any other treatment works treating domestic sewage (TWTDS), or wastewater treatment device or system, regardless of ownership (including federal facilities) used in the storage, treatment, recycling and reclamation of municipal or domestic sewage.

2.29. "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 W. Va. Code §§20-9 and 11.

2.30. "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. "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. "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. "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. "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 W. Va. Code §20-5A, 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 W. Va. Code §20-5E, 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 W. Va. Code §§22, 22A, or 22B, so long as such placement or disposal is in conformance with a permit issued pursuant to such chapters.

2.35. "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. "Solid waste disposal shed" means the geographical area which the solid waste management board designates and files in the state register pursuant to W. Va. Code §16-26-8.

2.37. "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 W. Va. Code §20-5F-2b. Such facility shall be deemed to be situated, for purposes of this rule, 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 W. Va. Code §17-23, is not a solid waste facility.

2.38. "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. "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. "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 503.

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

3.1. Incorporation of Federal Regulations. -- Federal regulations 40 CFR 503, excluding sections 503.10(b)(1) and 503.20 through 503.29 inclusive, in effect on the effective date this rule, are hereby fully incorporated and implemented as a part of these sewage sludge management regulations promulgated under the authority of W. Va. Code §20-5F-2b. Provided, That in instances where similar provisions exist, the more stringent requirements (state or federal) shall apply.

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 inches of soil over bedrock or an impervious pan.

3.2.1.1. 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 arsenic, cadmium, chromium, copper, lead, mercury, molybdenum, nickel, selenium, and zinc, as listed in Table 3 of this rule and the soil testing requirements of this rule.

3.2.2.a. The director shall assign an individual and lifetime loading rate for each land application site by considering background soil concentrations and maximum allowable pollutant concentrations as per Table 1 and per Table 3 of this rule, except as provided for in 3.2.2.b.

3.2.2.b. If circumstances at sewage sludge processing facilities result in short term excursions of Table 1 criteria, the Director may develop temporary loading rates, for a period not to exceed six months, based on the provisional limitations of Table 2 of this rule.

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 of the Office of Water Resources of the Division, 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, or as otherwise authorized by the Chief of the Office of Water Resources of the Division.

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 in accordance with the Groundwater Protection Act, W. Va. Code §20-5M and the rules promulgated thereunder.

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 W. Va. Code §§20- 5A and 5M, and the rules promulgated thereunder.

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 in compliance with State Water Quality Standards and the permit issued by the Office of Water Resources of the Division.

3.6. Landfill Disposal of Sewage Sludge. -- Sewage sludge disposed at a landfill shall contain at least twenty percent (20%) solids by weight. This requirement may be met by adding or blending sand, sawdust, lime, or soil. 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. On and after the effective date of this rule, all permitted facilities shall submit an application to modify such permit.

4.1.3. 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 W. Va. Code §20-5A.

4.1.4. For those publicly owned treatment works (POTW's) which produce sewage sludge and are regulated by the Division pursuant to an WV/NPDES permit required under W. Va. Code §20-5A 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 approved by the Chief of the Office of Water Resources of the Division.

4.1.5. Facilities which are surface disposal sites as defined in 40 CFR 503, Subpart C, are hereby defined as "landfills" and must meet all requirements of 47 CSR 38 applicable to landfills.

4.1.6. Permits issued under paragraph 4.1.1 of this rule, shall be subject to the provisions of 47 CSR 38, section 3 (excluding the provisions for Liner Requirements) and the closure requirements of 47 CSR 38, section 6.

4.1.7. Permits issued under paragraph 4.1.4. of this rule, 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 46 CSR 2 and are not subject to the procedures outlined in 4.1.5, 4.1.6. and 4.1.8 of this rule.

4.1.8. Permits issued under paragraph 4.1.5, of this rule, shall be subject to the procedures of 47 CSR 38 section 3 and the closure requirements of 47 CSR 38 section 6.

4.1.9 Permits issued under paragraph 4.1.3 of this rule except for land application modifications made in WV/NPDES permits under paragraph 4.1.4 of this rule shall be subject to the permit issuance procedures (subsections 3.17 through 3.29 inclusive) of 47 CSR 38 and are not subject to the procedures outlined in paragraphs 4.1.5, 4.1.6 and 4.1.8 of this rule.

4.2. General, Processing Facility, and Land Application Permit Requirements.--Persons required to obtain a permit pursuant to this rule must provide the following information, in the form and manner prescribed by the Chief of the Office of Waste Management or the Office of Water Resources of the Division as appropriate. The form may require information in addition to that required by this subsection.

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 and moisture (percent solids) 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 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 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; and

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

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

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

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

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

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

4.2.2.c.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.c.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.c.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.d. A description of the design of the facility, including:

4.2.2.d.A. The type, size, and associated detention times of equipment used in the handling, processing, and storage of sewage sludge;

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

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

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

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

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

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

4.2.2.d.I. The expected mass balance through the composting

system;

4.2.2.d.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; and

4.2.2.d.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 to the Chief of the Office of Water Resources of the Division in addition to that required under section 4.2.1. of this rule

4.2.3.a. Soil analysis for all land application sites including but not limited to pH, potassium, phosphorus, nitrogen, all metals listed in Table 1 of this rule and any additional chemical analysis required by the Director;

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 this rule;

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 and this rule;

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 paragraph 4.2.1 of this rule, any additional chemical analyses of sewage sludge(s) or material(s) derived from sewage sludge, requested by the Chief of the Office of Water Resources of the Division, including, but not limited to sodium, chloride, fluoride, calcium and sulfates;

4.2.3.i. A description of the methods 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 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 permits issued pursuant to this rule shall contain the following:

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

5.1.1.c. Requirements relative to reporting and certification;

5.1.1.d. Requirement to pay fees as identified in section 6 of this rule;

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 not to exceed a commercial solid waste facility's tonnage limits, where applicable;

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

5.2. Processing Facility Permit Requirements.--In addition to the requirements of subsection 5.1. of this rule, 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 503.32 and its Appendix B;

5.2.2. Operational requirements relative to vector attraction reduction in accordance with 40 CFR 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, and kiln dust; except that the frequency of monitoring shall be as described in Appendix A of this rule;

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 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; and

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

5.3. Land Application Permit Requirements.--In addition to the requirements of subsection 5.1 of this rule, any land application permit issued pursuant to the sewage sludge regulations 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 subsection 3.2 of this rule;
- 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 503.32(b);
- 5.3.5. Restrictions on animal grazing and public access, in accordance with 40 CFR 503.32(b); and
- 5.3.6. Applicable vector attraction reduction requirements of 40 CFR 503.33.

§47-38D-6. FEE AND BONDING REQUIREMENTS

6.1. Applicability.--Any producer or importer of sewage sludge 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. The fees established herein in paragraphs 6.4.1 and 6.4.2 of this rule shall be assessed on forms prescribed by the Chief of the Office of Water Resources of the Division and shall be paid to said chief quarterly.

6.2. Water Quality Management Fund. Fees collected for land application shall be deposited in the special revenue fund designated the "Water Quality Management Fund" established under the provisions of W.Va. Code § 20-5A-6a except as otherwise specified herein.

6.3. Bonding--The Director may require a surety bond, deposit or similar instrument in an amount sufficient to cover the cost of future environmental remediation from producers and importers of sewage.

6.4. Fee Assessments.

6.4.1. Producers and importers of sewage sludge or material derived from sewage sludge for land application shall be assessed a sewage sludge management program fee calculated as \$5.00 per actual ton of sludge times the proportion of solids in the sludge for sludge with maximum metals concentrations not exceeding those listed in Table 1 of this rule.

6.4.2. 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 as levied on the disposal of solid waste under W. Va. code § 20; Provided, That no such fees, excepting assessment fees required by this section, shall be levied upon the

application of sewage sludge to land outside a solid waste facility in accordance with the statute and this rule.

6.4.3. Fees generated pursuant to paragraph 6.4.1 shall be reviewed periodically by the Director and shall be adjusted as necessary to assure that total collections shall not exceed \$200,000 per year.

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

TABLE 1
MAXIMUM CONCENTRATION OF METALS IN SEWAGE SLUDGE
FOR LAND APPLICATION

Metal	Concentration (mg/kg)
Arsenic	41
Cadmium	10
Chromium	1000
Copper	1000
Lead	250
Mercury	10
Molybdenum	18
Nickel	200
Selenium	36
Zinc	2500

TABLE 2
PROVISIONAL MAXIMUM CONCENTRATION OF METALS IN SEWAGE SLUDGE
FOR PRODUCERS NOT MEETING TABLE 1 CRITERIA

Metal	Concentration (mg/kg)
Arsenic	75
Cadmium	85
Chromium	3000
Copper	4300
Lead	840
Mercury	57
Molybdenum	75
Nickel	420
Selenium	100
Zinc	7500