

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 Protection TITLE NUMBER: 47

CITE AUTHORITY Chapter 20-11-8(c)

AMENDMENT TO AN EXISTING RULE: YES NO

IF YES, SERIES NUMBER OF RULE BEING AMENDED: _____

TITLE OF RULE BEING AMENDED: _____

IF NO, SERIES NUMBER OF NEW RULE BEING PROPOSED: 38E

TITLE OF RULE BEING PROPOSED: "Yard Waste Composting Regulations"

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.

G. Max Robertson by KE, Deputy Chief

G. Max Robertson, Chief
Office of Waste Management, DEP

15.40

FISCAL NOTE FOR A PROPOSED RULE

Rule Title: Title 47, Series 38E, "Yard Waste Composting Regulations"

Type of Rule: XX Legislative Interpretive Procedural

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

Address: 1356 Hansford Street, Charleston, West Virginia 25301

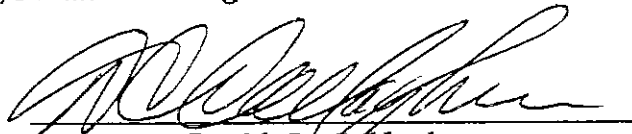
1. Effect of Proposed Rule	ANNUAL			FISCAL YEAR		
	Increase	Decrease	Current	Next	Thereafter	
-Personal Services						
-Current Expense			UNKNOWN			
-Repairs and Alterations						
-Equipment						
-Other						

2. Explanation of Above Estimates: The promulgation of these rules should not result in the need of additional personnel, equipment and other related costs to efficiently and orderly regulate yard waste.

3. Objectives of These Rules: To establish requirements and guidelines for the proper handling and composting of yard wastes in an environmentally safe manner.

4. Explanation of Overall Economic Impact of Proposed Rule.

- A. Economic Impact on State Government: Unknown.
- B.
 - 1. Economic Impact on Political Subdivisions: Unknown
 - 2. Economic Impact on Specific Industries: Unknown
 - 3. Economic Impact on Specific Groups of Citizens: Unknown
- C. Economic Impact on Citizens/Public at Large: Unknown



 David C. Callaghan
 Director

Date: August 16, 1993

DATE:

FILED

TO: LEGISLATIVE RULE-MAKING REVIEW COMMITTEE

AUG 16 4 56 PM '93

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

LEGISLATIVE RULE TITLE: "Yard Waste Composting Regulation" OFFICE OF WEST VIRGINIA SECRETARY OF STATE

1. Authorizing statute(s) citation West Virginia Code 20-11-8(c)

2. a. Date filed in State Register with Notice of Hearing
July 7, 1993

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

c. Date of Hearing(s) August 6, 1993

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

e. Date you filed in State Register the agency approved proposed Legislative Rule following public hearing: (be exact)
August 16, 1993

f. Name and phone number(s) of agency person(s) to contact for additional information:
Bill Rheinlander, 558-5929

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

a. Give the date upon which you filed in the State Register a notice of the time and place of a hearing for the taking of evidence and a general description of the issues to be decided.

N/A

b. Date of hearing: _____

c. On what date did you file in the State Register the findings and determinations required together with the reasons therefor?

N/A

d. Attach findings and determinations and reasons:

Attached N/A

TITLE 47
LEGISLATIVE RULES
DIVISION OF ENVIRONMENTAL PROTECTION

SERIES 38E
YARD WASTE COMPOSTING REGULATIONS

47-38E-1. **GENERAL**

1.1. **Scope and Purpose.** -- This legislative rule establishes requirements for the proper handling and composting of yard waste including siting, bonding, design, construction, modification, operation, closure and permitting procedures pertaining to any facility that generates, processes, composts or otherwise reuses or recycles yard waste by whatever means and sets forth requirements for operator training and certification.

1.2. **Authority** -- West Virginia Code 20-11-8(c).

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.

TITLE 47
LEGISLATIVE RULES
DIVISION OF ENVIRONMENTAL PROTECTION

SERIES 38E
YARD WASTE COMPOSTING REGULATIONS

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TITLE 47
LEGISLATIVE RULES
DIVISION OF ENVIRONMENTAL PROTECTION

OFFICE OF WEST VIRGINIA
SECRETARY OF STATE

SERIES 38E
YARD WASTE COMPOSTING REGULATIONS

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47-38E-2. DEFINITIONS

All definitions in Chapter 20 Article 5F Section 2 as amended by Senate Bill 288 and all definitions in Title 47 Series 38D are fully incorporated into these regulations by reference. The following additional definitions shall apply to these rules:

2.1. **"Buffer zone"** means the distance between the composting operation and the adjacent property boundaries.

2.2. **"Commercial yard waste composting facility"** means any solid waste facility which is authorized to handle or accept up to thirty-six thousand (36,000) tons per year of yard waste and/or other compostable solid waste materials generated by sources other than the owner or operator of the facility, provided that, a commercial yard waste composting facility shall not include an approved solid waste facility owned and operated by a person for the sole purpose of composting of yard waste created by that person or such person and other persons on a cost-sharing or nonprofit basis and shall not include land upon which finished compost is applied for use as a soil amendment/soil conditioner.

2.3. **"Non-residential composting activities"** means a composting activity by a business such as landscape contractors, nurseries or greenhouses, lawn and garden companies, which are authorized to compost up to twelve thousand (12,000) tons per year of yard waste generated by business activities of the owner/operator consisting of grass clippings, weeds, leaves, brush/shrub or tree prunings or other acceptable compostable materials which have been approved in writing by the Chief to produce a safe product for use as a soil amendment/soil conditioner.

2.4. **"Nuisance"** means any practice or condition created by a composting facility or activities which results in dust, dirt, mud, infectious molds, bacteria or fungi, offensive odor, or attracts vectors such as insects, rodents, snakes or in any way interferes with the normal use of any properties or causes harm or injury to any person or the environment.

2.5. **"Residential composting activities"** means a composting activity by a resident who composts yard waste consisting of grass clippings, weeds, leaves, brush/shrub or tree prunings or other acceptable compostable materials arising from general residential lawn or garden maintenance where such materials are generated on a resident's property and the resultant composted material used as soil amendment/soil conditioner.

2.6. **"Runoff"** means any flowing water and associated contaminants originating from any part of the solid waste facility or activity that drains over the land.

2.7. **"Run-on"** means any rainwater, snowmelt, wastewater, leachate or other liquid that drains over land onto any part of the compost facility.

2.8. **"Soil amendment/soil conditioner"** means an organic matter source or yard waste compost that when added to the soil improves the general physical, chemical and biological properties of the soil.

2.9. "Yard waste composting" means the controlled decomposition of yard waste to produce a stable and beneficial humus-like material.

2.10. "Yard waste" means grass clippings, weeds, leaves, brush, garden waste, shrub or tree prunings and other living or dead plant tissues, except that, such materials which, due to inadvertent contamination or mixture with other substances which render the waste unsuitable for composting, shall not be considered to be yard waste.

2.11. "Windrow" means an elongated pile created by the placement of yard waste.

47-38E-3. YARD WASTE COMPOSTING AND PERMITTING REQUIREMENTS

3.1 Applicability

3.1.1. These regulations apply to all persons who handle or manage yard waste to produce compost and requires that:

3.1.1.a. Methods employed for yard waste composting shall be consistent with Section 4 of the Solid Waste Management Board's Program for the Proper Handling of Yard Waste, dated May 1, 1993.

3.1.1.b. Yard wastes are not combined with sludge, as defined in Title 47 Series 38 Section 2.52., "Solid Waste Management Regulations", petroleum contaminated soil or other solid waste materials specified by the Chief.

3.1.1.c. A yard waste composting facility is not situated atop a partially or fully closed solid waste disposal unit at a permitted solid waste disposal facility; provided that, an existing solid waste facility may modify the permit to include yard waste composting operations. The Chief in cooperation with the county or regional solid waste authority shall determine if a major or minor permit modification is required.

3.1.2. After the first day of June 1994, it shall be unlawful to willfully deposit yard waste in a solid waste facility other than a designated (approved) yard waste composting facility or activity in the State of West Virginia.

3.2. Location Standards for Siting a Commercial Yard Waste Composting Facility.

3.2.1. The following location standards apply to commercial yard waste composting facilities, unless otherwise approved by the chief:

3.2.1.a. A yard waste composting facility shall be located in an area which has been authorized for composting facilities by the county and/or regional solid waste authority approved siting plan;

3.2.1.b. Yard waste composting facilities shall not be sited or constructed in areas subject to a one hundred year flood plain and no facility shall be closer than three hundred (300) feet to any regularly flowing stream, perennial stream, pond, lake, wetland or spring;

3.2.1.c. Yard waste composting facilities shall not be located in areas which are geologically unstable or where the site topography exceeds six (6) percent grade;

3.2.1.d. Acceptable sites must have sufficient area and terrain to allow for proper management of run-on, runoff and leachate;

3.2.1.e. A yard waste composting facility shall not be located within two thousand (2000) feet of any health care facility, school, church, or similar type of institution. The chief may reduce this set-back distance if the owner or operator can successfully demonstrate that a nuisance will not be created due to the operation of such facility;

3.2.1.f. A yard waste composting facility shall not be located within two-hundred (200) feet of drinking water supply wells and occupied dwellings;

3.2.1.g. A yard waste composting facility shall not be located within fifty (50) feet of a federal or state highway right-of-way or within twenty-five (25) feet of a city street right-of-way;

3.2.1.h. The operational area of a yard waste composting facility shall not be located within one-hundred (100) feet of an adjacent property owner's boundary line;

3.2.1.i. A yard waste composting facility shall not be located on land where runoff drains into a sinkhole;

3.2.1.j. A yard waste composting facility shall not be located on land that has a seasonal high groundwater table (based on soil maps) less than two (2) feet from the land surface;

3.2.1.k. A yard waste composting facility shall not be located on land that has less than twenty (20") inches of soil over bedrock or on an impervious pan; and

3.2.1.l. A yard waste composting facility shall not be located within ten thousand (10,000) feet to the closest point of any airport runway used or planned to be used by turbojet aircraft or within five thousand (5,000) feet to the closest point of any airport runway used only by piston type aircraft or within other areas where a substantial bird hazard to aircraft would be created.

3.3. Location Standards for Siting Non-Residential Composting Activities.

3.3.1. The following location standards apply to non-residential composting activities:

3.3.1.a. Non-residential composting activities shall not be sited or constructed in areas closer than one hundred (100) feet to any regularly flowing stream, perennial stream, pond, lake, wetland or spring;

3.3.1.b. Non-residential composting activities shall have sufficient area and terrain to allow for the proper management of run-on,

runoff and leachate provided that the facility is located on land no more than five acres in size;

3.3.1.c. Non-residential composting activities shall not be located within one hundred (100) feet of an adjacent property owner's boundary line without obtaining written permission from the adjacent property owner;

3.3.1.d. Non-residential composting activities shall not be located within one hundred (100) feet of a sinkhole; and

3.3.1.e. Compliance with location standards for all yard waste composting facilities or activities do not relieve the owner or operator from compliance with all codes, ordinances or regulations.

3.4. Design and Construction of Commercial Yard Waste Composting Facility.

3.4.1. A handling area and proper equipment shall be provided to segregate waste other than yard waste and non-compostable components in the yard waste and to store such components in properly constructed containers prior to their disposal at a permitted solid waste disposal facility.

3.4.2. If the yard waste composting facility is located in any area where the seasonal high water table (based on soil maps) lies within five (5) feet of the ground surface, the composting and handling areas shall be hard-surfaced in a manner acceptable to the chief and diked to prevent entry of run-on or escape of runoff and other liquids, and a sump with adequately sized pump located at the low point of the hard-surface area shall be provided to convey liquids to a wastewater treatment, disposal or holding facility.

3.4.3. Accepted engineering practices shall be incorporated into the design of facilities located on sites with:

3.4.3.a. Springs, seeps, and other groundwater intrusions;

3.4.3.b. Gas, water, phone, sewage lines or other utilities under the active areas; or

3.4.3.c. Electrical transmission lines above or below the active areas;

3.4.3.d. Areas used for mixing, curing, and storing of compost shall be graded to prevent run-on, collect runoff, and provided with a drainage system to route the collected runoff to a wastewater storage, treatment, or disposal facility.

3.4.3.e. A buffer zone with the minimum width of one hundred (100) feet shall be incorporated in the facility design between facility adjacent property boundaries and the operational areas of the facility.

3.4.3.f. Roads serving the unloading, handling, composting, and storage areas shall be of all-weather construction and the design features for each shall be shown on drawings submitted in the application.

3.4.3.g. The design of a commercial yard waste composting facility shall be signed and sealed by a registered professional engineer.

3.5. Permits Required.

3.5.1. Applicability. No person may establish, install, construct or operate the following:

3.5.1.a. A commercial yard waste composting facility without obtaining a solid waste facility permit from the division, provided that first, the applicant fulfills the pre-siting requirements of section 3.4 of the West Virginia Solid Waste Management Regulations, Title 47, Series 38; or

3.5.1.b. A non-residential composting activity without the property owner/operator obtaining a registration number from the Division of Environmental Protection, Office of Waste Management, Solid Waste Management Section.

3.5.2. Exemptions. Residential and non-residential composting activities shall be exempt from obtaining a commercial solid waste facility permit, such non-residential activity shall be located and operated in compliance with the location standards and the operational requirements as set forth in Sections 3.3 and 3.8 of these regulations.

3.6. Permit Application Requirements

3.6.1. The applicant for a permit to establish, install, construct, operate and close a commercial yard waste composting facility shall include in the permit application the following:

3.6.1.a. Copy of certificate of convenience and necessity (CON);

3.6.1.b. Copy of certificate of siting approval;

3.6.1.c. The name, address, and location of the proposed facility;

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

3.6.1.e. Copy of legal documents demonstrating that the applicant has legal right to enter and conduct commercial yard waste composting operations on the property including a copy of the deed description or lease agreement;

3.6.1.f. A safety program designed to prevent hazards and accidents at the proposed facility;

3.6.1.g. Proof of liability insurance to cover the operations of the proposed facility;

3.6.1.h. A detailed description of the activities to be conducted by the applicant at the facility.

3.6.2. An engineering report for an application to obtain a permit to construct shall contain, at a minimum, the following:

3.6.2.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;

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

3.6.2.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, wetlands, and drainage swales located within the site and in the site plan area.

3.6.2.d. A detailed description of the operation of the facility including precautions or procedures for operation during heavy winds, thunderstorms, snowstorms, prolonged freezing conditions and an operational narrative describing the following:

3.6.2.d.A. Collection methods to be employed;

3.6.2.d.B. Methods to be utilized in constructing compost piles or windrows, including equipment;

3.6.2.d.C. Proposed dimensions of compost piles or windrow;

3.6.2.d.D. Source of supplemental water to maintain an optimal moisture content of compost piles or windrows;

3.6.2.d.E. Proposed turning frequency, including method for determining that frequency;

3.6.2.d.F. Proposed duration of composting process, including curing or storage time, and the term of compost distribution;

3.6.2.d.G. Distribution plan for the yard waste compost;

3.6.2.d.H. Residue disposal plan including the location of disposal site(s);

3.6.2.d.I. Provisions for emergency response; and

3.6.2.d.J. Public information and education program.

3.6.2.e. 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.

3.6.2.f. Anticipated daily traffic flow to and from the facility.

3.6.2.g. A description of the ultimate use for the finished yard waste compost, method for removal from the site, and a plan for use or disposal of any yard waste compost that cannot be used in the expected manner due to poor quality or change in market conditions.

3.6.2.h. Identification of the personnel required to operate and maintain the facility and their job descriptions/responsibilities.

3.6.2.i. A detailed description of the origin, quality, quantity, and type of yard waste anticipated to be received at the proposed facility. The quantity of yard waste anticipated to be received shall be estimated in both cubic yards and tonnage, and the maximum amount of compost estimated to be produced daily, monthly and annually shall be stated.

3.6.2.j. 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 yard waste compost product and unusual traffic conditions.

3.6.2.k. The procedures for the development of an Operations Manual. The manual must contain general design information, detailed operational information and instructions including methods of monitoring for moisture, temperature, and other quality control measures during the composting process. In addition, the manual must outline the specific procedures to be used in monitoring, sampling and analyzing finished compost material, which must be acceptable to the chief, provided that, as a minimum the finished compost material shall be analyzed by an approved EPA method for the concentration levels of heavy metals prior to its use. If any heavy metal concentration level exceeds regulatory standards, the finished compost material must be disposed of in an approved landfill.

3.6.2.l. A detailed description of the yard waste composting technology to be utilized at the proposed facility.

3.6.2.m. Three copies of the application, including all supporting documents, shall be filed with the Division of Environmental Protection, Office of Waste Management, Solid Waste Management Section. A fourth copy shall be submitted to the Solid Waste Management Board, a fifth copy shall be submitted to the county or regional solid waste authority for the area in which the proposed facility is to be located.

3.7. Permit Application Fees

3.7.1. Each application filed for a commercial yard waste composting facility permit must be accompanied by a non-refundable application fee made payable to the Division of Environmental Protection in the amount of five hundred (\$500.00) dollars.

3.7.2. A fee of fifty (\$50.00) dollars or ten (10) percent of the application fee may be levied for any application refiled due to incompleteness.

3.8. Operational Requirements For Commercial Yard Waste Composting Facilities and Non-Residential Composting Activities.

3.8.1. The addition of any other solid waste including but not limited to hazardous, sludges, infectious, construction debris, demolition, industrial or other municipal solid waste to the yard waste is strictly prohibited.

3.8.2. Waste other than yard waste and non-compostable solid wastes shall be segregated from the compostable yard waste and promptly removed from the site for proper disposal at an approved facility. Segregated solid waste shall be removed from the facility at the end of each working day unless it is stored in containers specifically designed for storage of solid waste, provided that such material shall not remain at the facility more than thirty days.

Screening and removal of non-compostable solid wastes from the windrows or compost piles shall occur after the composting process is completed.

3.8.4. Access to a yard waste composting facility shall be allowed only when an attendant is on duty.

3.8.5. Any nuisance created by a commercial yard waste composting facility or a non-residential composting activity which causes harm or injury to any person or the environment shall be abated or the composting facility or activity may be required by the chief to cease and desist operations.

3.8.6. Shrubs, brush, tree prunings or any other bulky, woody type materials shall be shredded, ground or otherwise reduced in size prior to being mixed with other yard wastes to be composted.

3.8.7. The operator of a yard waste composting facility shall implement, and enforce a safety program designed to prevent hazards and accidents.

3.8.8. Open burning shall be prohibited.

3.8.9. Fugitive dust and mud deposits on main off-site roads and access roads shall be minimized at all times to limit nuisances and the operator must immediately abate any such nuisances.

3.8.10. Leachate or other runoff from a compost facility shall not be permitted to drain or discharge into surface waters except when authorized under a West Virginia NPDES permit issued by the division.

3.8.11. A one hundred (100) foot buffer zone shall be provided and maintained in a manner acceptable to the chief.

3.9. Other Acceptable Compostable Materials

3.9.1. Other acceptable compostable materials may include, but shall not be limited to, coffee grounds, kitchen scraps, pet and human hair, shredded newspapers, lint and sweepings, wood ashes, fish and poultry carcasses/litter, and animal manures.

3.10. Incorporation By Reference

3.10.1. The following sections of the West Virginia Solid Waste Management Regulations, Title 47, Series 38, are hereby incorporated and implemented as a part of these yard waste composting regulations and apply only to commercial yard waste composting facilities:

- 3.10.1.a. Section 3.4 "Pre-Siting Requirement for Commercial Solid Waste Facilities"
- 3.10.1.b. Section 3.13 "Bonding and Financial Assurance"
- 3.10.1.c. Section 3.17 "Draft Permit"
- 3.10.1.d. Section 3.18 "Permit Modification, Suspension and Revocation"
- 3.10.1.e. Section 3.19 "Transfer of Permit"
- 3.10.1.f. Section 3.20 "Permit Renewal"
- 3.10.1.g. Section 3.21 "Public Notice"
- 3.10.1.h. Section 3.22 "Public Comments and Request for Public Hearings"
- 3.10.1.i. Section 3.23 "Public Hearings"
- 3.10.1.j. Section 3.24 "Reopening of the Public Comment Period"
- 3.10.1.k. Section 3.25 "Public Participation File"
- 3.10.1.l. Section 3.26 "Public Availability of Information"
- 3.10.1.m. Section 3.27 "Issuance and Effective Date of Permit"
- 3.10.1.n. Section 3.28 "Permit Review by the Director"
- 3.10.1.o. Section 3.29 "Appeals"
- 3.10.1.p. Section 4.5.5 "Quality Assurance and Quality Control" (applicable subsections only)
- 3.10.1.q. Section 4.8 "Leachate Management"
- 3.10.1.r. Section 4.12 "Reporting"

47-38E-4. CLOSURE REQUIREMENTS FOR A COMMERCIAL YARD WASTE COMPOSTING FACILITY.

4.1. **Maintenance Minimization.** The owner or operator shall close the facility in a manner that minimizes the need for further maintenance. All solid waste, compost, and residues shall be removed and disposed in a permitted solid waste disposal facility.

4.2. **Closure Plan and Closure Plan Amendments.** The owner or operator of a commercial yard waste composting facility shall have a written closure plan.

4.2.1. Closure plan inclusions.

4.2.1.a. This plan shall identify the steps necessary to completely close the facility at the time when its operation is most extensive or operating at peak capacity. The closure plan shall include, at a minimum, a schedule for final closure, the anticipated date when wastes will no longer be received, the date when completion of final closure is anticipated, and intervening milestone dates which will allow tracking of the progress of closure.

4.2.1.b. The closure plan shall be submitted to the division as a part of the application for a permit. If found to be deficient, the closure plan shall be amended by the owner or operator within ninety (90) days of the chief's finding. If the amended closure plan continues to be deficient, the permit will not be issued until the amended plan meets the closure requirements.

4.2.2. Closure plan amendments.

4.2.2.a. The owner or operator shall update the closure plan that any changes in operation plans or facility design affects the closure plan. Updated plans shall be submitted to the division within fifteen (15) days of such changes. The chief may require that updated plans be modified to meet the closure requirements.

4.2.2.b. At any time during the operating life of the facility, the amended closure plan shall be made available to the division or the county or regional solid waste authority upon request.

4.3. **Time Allowed for Closure.** The owner or operator shall complete closure activities in accordance with the approved closure plan and within six months after receiving the final volume of wastes. The chief may approve a longer closure period if the owner or operator can demonstrate that the required or planned closure activities will, of necessity, take longer than six months to complete; and that he has taken all necessary steps to eliminate any threat to human health and the environment from the unclosed but inactive facility.

4.3.1. At least thirty (30) days prior to the beginning of closure activities, the owner or operator shall post a sign at all points of access to the facility notifying all persons of the closing, and state that further receipt of waste materials is prohibited. Further, upon closure, suitable barriers shall be installed at all former access points to prevent new waste from being deposited.

4.3.2. Notice of the upcoming closure shall be a Class II legal advertisement which must be published in a local newspaper at least thirty (30) days prior to closure and a copy of the notice must be provided to the chief within ten (10) days of the date of publication.

4.4. **Site Reclamation Responsibilities.** A uniform and compacted layer of soil that is at least six (6") inches in thickness and capable of supporting revegetation shall be placed over all disturbed land surface areas within the facility's boundaries. A revegetation plan shall be a part of the closure plan requirements and must conform with the provisions of Section 4.5.6. of Title 47 Series 38 Solid Waste Management Regulations.

4.5. **Evidence of Proper Closure.** A compost facility shall be deemed properly closed when the above actions have been taken by the owner or operator and duly authorized representatives of the chief verifies same by an on-site inspection and provides a written confirmation that closure has been completed properly.

47-38E-5. COMMERCIAL YARD WASTE COMPOSTING OPERATOR TRAINING AND CERTIFICATION PROGRAM.

5.1. **Experience, Training and Education.** In order to ensure the proper, safe and efficient composting of yard waste, operators of commercial yard waste composting facilities must have a minimum of two years on the job experience in yard waste composting or receive training and education in yard waste composting. Such training and education shall consist of but not be limited to forty (40) classroom hours. Topics should include:

5.1.1. Proper and safe equipment operation and equipment preventive maintenance.

5.1.2. - Composting science technology which encompasses the composting process, composting methods, composting operations, site and environmental considerations, facility design and use, compost quality control, using and marketing compost, composting economics, record keeping and reporting, worker safety, business math and volumetric calculations.

5.2. **Approved Training and Education Programs.** Training and education for yard waste composting shall include programs sponsored by, but not limited to, colleges and universities, agricultural extension services, and county or regional solid waste authorities provided that all training and education programs must be approved by the Division of Environmental Protection, Office of Waste Management. A list of approved training and education programs shall be made available by the DEP, Office of Waste Management.

5.3. **Certification.** Any person who meets the requirements as listed in section 5.1. above shall be deemed a certified yard waste composting operator, provided that, written verification of on the job experience or training and education is properly submitted to the division on application forms provided by the chief.

RESPONSIVENESS SUMMARY

COMMENTS GENERATED BY THE PUBLICATION AND PUBLIC HEARING FOR THE DIVISION OF ENVIRONMENTAL PROTECTION'S PROPOSED YARD WASTE COMPOSTING REGULATIONS TITLE 47, SERIES 38E

On July 7, 1993, proposed Yard Waste Composting 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.

Following the public hearing, the Division of Environmental Protection began reviewing written comments and the transcript of oral comments given at the hearing. This document summarizes the comments received, provides the agency's response to those comments and identifies changes made to the proposed regulation under the heading "Amended Regulation" in this document.

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 in numerical order. For the benefit of each individual evaluating this responsiveness summary, the format is as follows: The proposed regulation of the specific section is shown first, then a summary of the comments, then the agency response, and last, the amended regulation. If the specific section was not amended, the term "Amended Regulation" will not be shown.

The agency wishes to express its appreciation to the commentators for providing valuable input to the regulatory process. It is hoped that the amendments 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 Yard Waste Composting Program and be protective of the environment and the citizens of the State of West Virginia.

RESPONSIVENESS SUMMARY

FISCAL NOTE

COMMENTS - One commentor expressed dissatisfaction that the term "unknown" was used to describe the effect or impact in regard to the fiscal note and that the agency should find out what impact these regulations have on the businesses of this state that would fall into the non-residential category, the state and county governments.

RESPONSE - The agency acknowledges that it is best to know the effect and impact of a proposed rule but also acknowledges that this particular rule does not impose any assessment fees on the public or the businesses effected, although a permit application fee to a specific applicant for a commercial yard waste composting facility is clearly stipulated in Section 3.7. of the proposed regulations. The agency has no reason to believe that this particular rule will have an adverse effect on the public, businesses, the state or county governments.

47-38E-2.0 DEFINITIONS

PROPOSED REGULATION -

2.2. "Commercial yard waste composting facility" means any solid waste facility which is authorized to handle or accept up to three thousand (3,000) tons per month of yard waste and/or other compostable solid waste materials generated by sources other than the owner or operator of the facility, provided that, a commercial yard waste composting facility shall not include an approved solid waste facility owned and operated by a person for the sole purpose of composting of yard waste created by that person or such person and other persons on a cost-sharing or nonprofit basis and shall not include land upon which finished compost is applied for use as a soil amendment/soil conditioner.

COMMENTS - Many commentors believed that "Section 2.2. Commercial Yard Waste Composting Facility" should not have included a three thousand (3,000) ton per month cap, whereas yard waste volumes are affected by seasonal fluctuations. Also, a comment at the public hearing was in regard to how the DEP arrived at the three thousand (3,000) ton per month figure.

RESPONSE - The agency recognizes the validity of this comment and the definition has been changed to reflect an annual cap of thirty-six thousand (36,000) tons per year.

Also, as explained by the agency during the public hearing on these proposed rules, the tonnage figure was established by obtaining the percentage of yard waste material of the total solid waste stream from the WV Solid Waste Management Board.

AMENDED REGULATION -

2.2. "Commercial yard waste composting facility" means any solid waste facility which is authorized to handle or accept up to thirty-six thousand (36,000) tons per year of yard waste and/or other compostable solid waste materials generated by sources other than the owner or operator of the facility, provided that, a commercial yard waste composting facility shall not include an approved solid waste facility owned and operated by a person for the sole purpose of composting of yard waste created by that person or such person and other persons on a cost-sharing or nonprofit basis and shall not include land upon which finished compost is applied for use as a soil amendment/soil conditioner.

PROPOSED REGULATION -

2.3. "Non-residential composting activities" means a composting activity by a business such as landscape contractors, nurseries or greenhouses, lawn and garden companies, which are authorized to handle or accept up to one thousand (1,000) tons per month, who compost yard waste consisting of

grass clippings, weeds, leaves, brush/shrub or tree prunings to produce a safe product for use as a soil amendment/soil conditioner.

COMMENTS - Comments received on Section 2.3. addressed two issues: 1) that this definition should be further restricted to yard waste generated only by the business activities of the owner/operator, and 2) that the specific items that may be received for composting include other acceptable compostable material as listed in Section 3.9.

RESPONSE - The agency concurs with comment number one that the yard waste received and composted should be limited to material generated only by the owner/operator of the non-residential composting activity.

However, the agency does not fully agree with comment number two because in the normal conduct of such business activities, most other acceptable compostable materials are not generated by the owner/operator.

AMENDED REGULATION -

2.3. "Non-residential composting activities" means a composting activity by a business such as landscape contractors, nurseries or greenhouses, lawn and garden companies, which are authorized to compost up to twelve thousand (12,000) tons per year of yard waste generated by business activities of the owner/operator consisting of grass clippings, weeds, leaves, brush/shrub or tree prunings or other acceptable compostable materials which have been approved in writing by the Chief to produce a safe product for use as a soil amendment/soil conditioner.

PROPOSED REGULATION -

2.4. "Nuisance" means any practice or condition created by a composting facility or activities which results in dust, dirt, mud, infectious molds, bacteria or fungi, offensive odor, or attracts vectors such as insects, rodents, snakes or in any way interferes with the normal use of any properties or causes harm or injury to any person or the environment.

COMMENTS - Comments received on Section 2.4. addressed the issue of the presence of molds, bacteria, or fungi in yard waste and that this presence, since they are present during the composting process, constitutes a nuisance.

RESPONSE - The agency understands how this section may have been misinterpreted, however, the mere presence of molds, bacteria, or fungi does not constitute a violation unless there is interference (adverse effect) with the normal use of any properties or causes harm or injury to any person or the environment. The agency sincerely appreciates this astute observation by the commentor, but after careful review, believes

that the definition of "Nuisance" as proposed in these regulations, is appropriate.

PROPOSED REGULATION -

2.5. "Residential backyard composting activities" means a composting activity by a resident who composts yard waste consisting of grass clippings, weeds, leaves, brush/shrub or tree prunings or other such materials arising from general residential lawn or garden maintenance where such materials are generated on a resident's property and the resultant composted material used as soil amendment/soil conditioner.

COMMENTS - Commentors expressed concern that the word "backyard" implies that the composting activity must be located in the backyard of a residence and this word should not be used unless there is a specific purpose therefore. Also, a comment was received to change the words "other such material" to "other acceptable compostable material."

RESPONSE - The agency agrees with both comments as presented and believe that the requested changes will improve the scope and purpose of the definition.

AMENDED REGULATION

2.5. "Residential composting activities" means a composting activity by a resident who composts yard waste consisting of grass clippings, weeds, leaves, brush/shrub or tree prunings or other acceptable compostable materials arising from general residential lawn or garden maintenance where such materials are generated on a resident's property and the resultant composted material used as soil amendment/soil conditioner.

PROPOSED REGULATION -

2.9. "Yard waste composting" means the controlled decomposition of yard waste by various processes, including but not limited to, minimal technology, low-level technology, intermediate-level technology, or high-level technology to produce a stable and beneficial humus-like material.

COMMENTS - A couple of comments were received concerning the meaning of the terms minimal, low-level, intermediate or high-level technology.

RESPONSE - These terms were included in the definition for the general purpose of relating to their use in the "Program for the Proper Handling of Yard Waste" prepared by the WV Solid Waste

Management Board which were filed along with the proposed rule to the Secretary of State.

Whereas, these four terms do not describe a specific scientific technology and are not used in the body of the proposed rule, the agency believes, after the comments received, that our use in the definition was unclear and unnecessary.

AMENDED REGULATION -

2.9. "Yard waste composting" means the controlled decomposition of yard waste to produce a stable and beneficial humus-like material.

PROPOSED REGULATION -

2.10. "Yard waste" means grass clippings, weeds, leaves, brush, garden waste, shrub or tree prunings and other living or dead plant tissues.

COMMENTS - One particular comment purports that grass clippings left on a lawn to rot is yard waste according to the definition as written and is this the intention? Another comments suggests that Section 2.10. should be expanded to exclude from the definition of yard waste such materials which, due to inadvertent contamination or mixture with other substances which render the waste unsuitable for composting, shall not be considered to be yard waste.

RESPONSE - The agency sees no reason to amend this section in response to the first comment because grass clippings left on the lawn to rot does not constitute yard waste composting or a yard waste material intended for regulation as it pertains to this rule.

The agency does agree with the second comment that a provision or exception is needed in Section 2.10. to allow for the proper disposal of waste not suitable for composting.

AMENDED REGULATION -

2.10. "Yard waste" means grass clippings, weeds, leaves, brush, garden waste, shrub or tree prunings and other living or dead plant tissues, except that, such materials which, due to inadvertent contamination or mixture with other substances which render the waste unsuitable for composting, shall not be considered to be yard waste.

47-38E-3.0. YARD WASTE COMPOSTING AND PERMITTING REQUIREMENTS

PROPOSED REGULATION -

3.1.1.b. Yard wastes are not combined with sludges, petroleum contaminated soils, animal manures or other solid waste materials specified by the Chief.

COMMENTS - Predominant among the commentors' concern was the exclusion of animal manures and petroleum contaminated soils from combining with yard wastes to produce a compost.

RESPONSE - The agency concedes that farmers need a provision to compost animal manures. Please note that amendment to this section in response to the comments also required amendment to Section 3.9.1.

The agency does not agree with combining petroleum contaminated soil (PCS) with yard waste to produce compost or deleting PCS from this section and adding to "Section 3.9.1 Other acceptable Compostable Materials."

AMENDED REGULATION -

3.1.1.b. Yard wastes are not combined with sludge, as defined in Title 47 Series 38 Section 2.52., "Solid Waste Management Regulations", petroleum contaminated soil or other solid waste materials specified by the Chief.

PROPOSED REGULATION -

3.1.1.c. A yard waste composting facility is not situated atop a partially or fully closed solid waste disposal unit at a permitted solid waste disposal facility.

COMMENTS - Commentors expressed concern that no provision exists in the rule for an existing permitted solid waste facility to implement a yard waste composting operation.

RESPONSE - The agency agrees that a provision in the rule allowing an existing permitted solid waste facility to implement yard waste composting operations is necessary, provided that such operations are not situated atop a disposal unit (cell) or partially of fully closed landfill. Therefore, Section 3.1.1.c. is amended.

AMENDED REGULATION -

3.1.1.c. A yard waste composting facility is not situated atop a partially or fully closed solid waste disposal unit at a permitted solid waste disposal facility; provided that, an existing solid waste facility may modify the permit to include yard waste composting operations. The Chief in cooperation with the county or regional solid waste authority shall determine if a major or minor permit modification is required.

PROPOSED REGULATION -

3.1.2. After the first day of June 1994, it shall be unlawful to willfully deposit yard waste in a solid waste facility other than a designated (approved) yard waste composting facility or activity in the State of West Virginia.

COMMENTS - Comments were received in regard to the deadline date, June 1, 1994, banning yard waste from disposal in a landfill and will other facilities be available after this date.

RESPONSE - The deadline date was established by statute (S.B. 400) and the agency is not authorized to amend this date. The purpose of these regulations is in part to provide other facilities to properly handle and compost yard waste. Therefore, there is no amendment to this section.

PROPOSED REGULATION -

3.2.1.b. Yard waste composting facilities shall not be sited or constructed in areas subject to base floods and no facility shall be closer than three hundred (300) feet to any regularly flowing stream, perennial stream, pond, lake, wetland or spring;

COMMENTS - Commentor wanted to replace the term "base floods" with the term "a one hundred year flood plain."

RESPONSE - Whereas the agency recognizes that the terms are synonymous and the commentor's recommended term is used in Title 47 Series 38 "Solid Waste Management Regulations", the section is amended for consistency.

AMENDED REGULATION -

3.2.1.b. Yard waste composting facilities shall not be sited or constructed in areas subject to a one hundred year flood plain and no facility shall be closer than three hundred (300) feet to any regularly flowing stream, perennial stream, pond, lake, wetland or spring;

PROPOSED REGULATION -

3.2.1.j. A yard waste composting facility shall not be located on land that has a seasonal high groundwater table less than two (2) feet from the land surface;

3.4.2. If the yard waste composting facility is located in any area where the seasonal high water table lies within five (5) feet of the ground surface, the composting and handling areas shall be hard-surfaced in a manner acceptable to the chief and diked to prevent entry of run-on or escape of runoff and other liquids, and a sump with adequately sized pump

located at the low point of the hard-surface area shall be provided to convey liquids to a wastewater treatment, disposal or holding facility.

COMMENTS - One commentor pointed out that the term seasonal high groundwater table in both Sections 3.2.1.j. and 3.4.2. should be based on a readily determined criteria.

RESPONSE - The agency agrees that this term must be based upon a readily determined criteria and has amended the sections to reflect that soil maps shall be the criteria used.

AMENDED REGULATION -

3.2.1.j. A yard waste composting facility shall not be located on land that has a seasonal high groundwater table (based on soil maps) less than two (2) feet from the land surface;

3.4.2. If the yard waste composting facility is located in any area where the seasonal high water table (based on soil maps) lies within five (5) feet of the ground surface, the composting and handling areas shall be hard-surfaced in a manner acceptable to the chief and diked to prevent entry of run-on or escape of runoff and other liquids, and a sump with adequately sized pump located at the low point of the hard-surface area shall be provided to convey liquids to a wastewater treatment, disposal or holding facility.

PROPOSED REGULATION -

3.2.1.1. A yard waste composting facility shall not be located within ten thousand (10,000) feet to the closest point of any airport runway used or planned to be used by turbojet aircraft or within five thousand (5,000) feet to the closest point of any airport runway used only by piston type aircraft or within other areas where a substantial bird hazard to aircraft would be created.

COMMENTS - One commentor asserts that yard waste composting should not attract birds unless other compostable materials is included such as kitchen scraps.

RESPONSE - Whereas the agency recognizes that other acceptable compostable materials including but not limited to kitchen scraps is permissible at a commercial yard waste composting facility, the possible attraction of birds does exist, therefore, the language in Section 3.2.1.1. remains unchanged.

PROPOSED REGULATION -

3.3. Location Standards for Siting Residential Backyard Composting Activities and Non-Residential Composting Activities.

COMMENTS - A verbal comment was received at the public hearing as to whether or not the inclusion of residential composting activities in the location standard requirements would have a positive or negative impact on the composting of yard waste at a person's residence.

RESPONSE - After much consideration, the agency believes and agrees with the commentor that including residential composting activities in the location standard requirements would have a negative impact and may discourage residents from participating in yard waste composting. Therefore, the agency has amended Section 3.3. by excluding residential composting activities from this requirement. This decision also resulted in the elimination of Section 3.3.1.d. from the regulations.

AMENDED REGULATION -

3.3. Location Standards for Non-Residential Composting Activities.

PROPOSED REGULATION -

3.3.1.e. Non-residential composting activities shall not be located on land where runoff drains into a sinkhole; and

COMMENTS - One commentor recommended a specific setback distance of one hundred (100) feet from a sinkhole.

RESPONSE - The agency concurs that a one hundred (100) feet setback distance from sinkholes is appropriate for non-residential composting activities. The agency also wishes to point out that the term "residential backyard composting activities" was deleted from Section 3.3.1.e.

AMENDED REGULATION -

3.3.1.e. Non-residential composting activities shall not be located within one hundred (100) feet of a sinkhole; and

PROPOSED REGULATION -

3.4.3.g. The design of a commercial yard waste composting facility shall be signed and sealed by a registered professional engineer.

3.10.1.r. Section 4.12 "Reporting"

COMMENTS - One commentor expressed concern that a comprehensive engineering plan for a commercial yard waste composting facility and groundwater monitoring requirements may be unnecessary.

RESPONSE - The agency's position is that a commercial yard waste composting facility should be designed in a comprehensive

manner with an appropriate engineering plan by a Registered Professional Engineer. Metals may be found in yard waste compost and in order to protect the public's health, safety, and the environment, the agency's position is that groundwater monitoring is necessary. Therefore, these two comments did not result in the amendment of the above two sections.

PROPOSED REGULATION -

3.6.2.k. The procedures for the development of an Operations Manual. The manual must contain general design information, detailed operational information and instructions including methods of monitoring for moisture, temperature, and other quality control measures during the composting process. In addition, the manual must outline the specific procedures to be used in monitoring, sampling and analyzing finished compost material, which must be acceptable to the chief, provided that, as a minimum the finished compost material shall be analyzed by an approved EPA method for the concentration levels of heavy metals prior to its use. If any heavy metal concentration level exceeds regulatory standards, the finished compost material must be disposed of in an approved landfill.

COMMENTS - One commentor recommended the procedures for monitoring compost quality in this section will be more effective if the regulations designate specific compost use categories based on compost quality parameters.

RESPONSE - The agency acknowledges that a list of specific categories for the various uses of compost based on the compost quality will enhance the composting program, and we intend to work with the WV Solid Waste Management Board to develop such a list.

Section 3.6.2.d.G. requires a distribution plan for the yard waste compost and Section 3.6.2.g. further requires a description of the ultimate use for the finished yard waste compost. Therefore, no changes were made to Section 3.6.2.k. of the proposed regulation.

PROPOSED REGULATION -

3.8.3. Screening and removal of non-compostable solid wastes from the windrows or compost piles shall occur daily.

COMMENTS - One commentor pointed out that Section 3.8.3. is unclear because it appears to conflict with Section 3.8.2.

RESPONSE - The agency inadvertently used the work "daily" whereas the correct statement should have been "after the composting process is completed."

AMENDED REGULATION -

3.8.3. Screening and removal of non-compostable solid wastes from the windrows or compost piles shall occur after the composting process is completed.

PROPOSED REGULATION -

3.9.1 Other acceptable compostable materials may include, but shall not be limited to, coffee grounds, kitchen scraps, pet and human hair, shredded newspapers, lint and sweepings, wood ashes, fish and poultry carcasses/litter.

COMMENTS - Commentors requested that animal manures and petroleum contaminated soil be included in this section. Also, one commentor felt that Section 3.9.1 and Section 3.8.1 are confusing.

RESPONSE - The agency has amended Section 3.9.1. to include animal manures as an other acceptable compostable material but did not include petroleum contaminated soil.

The agency does not agree that Section 3.9.1 and 3.8.1 are confusing because they specify what materials are acceptable compostable materials for yard waste composting and what materials are prohibited.

AMENDED REGULATION -

3.9.1 Other acceptable compostable materials may include, but shall not be limited to, coffee grounds, kitchen scraps, pet and human hair, shredded newspapers, lint and sweepings, wood ashes, fish and poultry carcasses/litter, and animal manures.

**47-38E-4. CLOSURE REQUIREMENT FOR A COMMERCIAL YARD WASTE
COMPOSTING FACILITY**

PROPOSED REGULATION -

4.4. Site Reclamation Responsibilities. A uniform and compacted layer of soil that is at least six (6") inches in thickness and capable of supporting revegetation shall be placed over all disturbed land surface areas within the facility's boundaries. A revegetation plan shall be a part of the closure plan requirements and must conform with the provisions of Section 4.5.6. of Title 47 Series 38 Solid Waste Management Regulations.

COMMENTS - One commentor questioned the need to compact the six (6) inch layer of soil.

RESPONSE - Compaction of this layer of soil is standard engineering practice and primarily serves to condense the surface to minimize erosion during the vegetative growth period. Therefore, no amendment to the section is necessary.

**47-38E-5. COMMERCIAL YARD WASTE COMPOSTING OPERATOR TRAINING AND
CERTIFICATION PROGRAM**

PROPOSED REGULATION -

5.2. Approved Training and Education Programs. Training and education for yard waste composting shall include programs sponsored by, but not limited to, colleges and universities, agricultural extension services, and county or regional solid waste authorities provided that all training and education programs must be approved by the Division of Environmental Protection, Office of Waste Management.

COMMENTS - A comment was received in regard to the operator training certification program. The commentor requested that the DEP either arrange for training sessions or make a list available of training centers for operator certification that the DEP will recognize.

RESPONSE - The agency agrees with the commentor that further information is necessary and the DEP will make the information available to the public.

AMENDED REGULATION -

5.2. Approved Training and Education Programs. Training and education for yard waste composting shall include programs sponsored by, but not limited to, colleges and universities, agricultural extension services, and county or regional solid waste authorities provided that all training and education programs must be approved by the Division of Environmental Protection, Office of Waste Management. A list of

approved training and education programs shall be made available by the DEP, Office of Waste Management.

TITLE 47
LEGISLATIVE RULES
DIVISION OF ENVIRONMENTAL PROTECTION

SERIES 38E
YARD WASTE COMPOSTING REGULATIONS

47-38E-1. GENERAL

1.1. **Scope and Purpose.** -- This legislative rule establishes requirements for the proper handling and composting of yard waste including siting, bonding, design, construction, modification, operation, closure and permitting procedures pertaining to any facility that generates, processes, composts or otherwise reuses or recycles yard waste by whatever means and sets forth requirements for operator training and certification.

1.2. **Authority** -- West Virginia Code 20-11-8(c).

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.

TITLE 47
LEGISLATIVE RULES
DIVISION OF ENVIRONMENTAL PROTECTION

SERIES 38E
YARD WASTE COMPOSTING REGULATIONS

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47-38E-2. DEFINITIONS

All definitions in Chapter 20 Article 5F Section 2 as amended by Senate Bill 288 and all definitions in Title 47 Series 38D are fully incorporated into these regulations by reference. The following additional definitions shall apply to these rules:

2.1. **"Buffer zone"** means the distance between the composting operation and the adjacent property boundaries.

2.2. **"Commercial yard waste composting facility"** means any solid waste facility which is authorized to handle or accept up to three thousand (3,000) thirty-six thousand (36,000) tons per month year of yard waste and/or other compostable solid waste materials generated by sources other than the owner or operator of the facility, provided that, a commercial yard waste composting facility shall not include an approved solid waste facility owned and operated by a person for the sole purpose of composting of yard waste created by that person or such person and other persons on a cost-sharing or nonprofit basis and shall not include land upon which finished compost is applied for use as a soil amendment/soil conditioner.

2.3. **"Non-residential composting activities"** means a composting activity by a business such as landscape contractors, nurseries or greenhouses, lawn and garden companies, which are authorized to compost up to one thousand (1,000) twelve thousand (12,000) tons per-month year of yard waste generated by business activities of the owner/operator consisting of grass clippings, weeds, leaves, brush/shrub or tree prunings or other acceptable compostable materials which have been approved in writing by the Chief to produce a safe product for use as a soil amendment/soil conditioner.

2.4. **"Nuisance"** means any practice or condition created by a composting facility or activities which results in dust, dirt, mud, infectious molds, bacteria or fungi, offensive odor, or attracts vectors such as insects, rodents, snakes or in any way interferes with the normal use of any properties or causes harm or injury to any person or the environment.

2.5. **"Residential backyard composting activities"** means a composting activity by a resident who composts yard waste consisting of grass clippings, weeds, leaves, brush/shrub or tree prunings or other acceptable compostable materials arising from general residential lawn or garden maintenance where such materials are generated on a resident's property and the resultant composted material used as soil amendment/soil conditioner.

2.6. **"Runoff"** means any flowing water and associated contaminants originating from any part of the solid waste facility or activity that drains over the land.

2.7. **"Run-on"** means any rainwater, snowmelt, wastewater, leachate or other liquid that drains over land onto any part of the compost facility.

2.8. **"Soil amendment/soil conditioner"** means an organic matter source or yard waste compost that when added to the soil improves the general physical, chemical and biological properties of the soil.

2.9. "Yard waste composting" means the controlled decomposition of yard waste by various processes, including but not limited to; ~~minimal technology; low-level technology; intermediate-level technology; or high-level technology~~ to produce a stable and beneficial humus-like material.

2.10. "Yard waste" means grass clippings, weeds, leaves, brush, garden waste, shrub or tree prunings and other living or dead plant tissues, except that, such materials which, due to inadvertent contamination or mixture with other substances which render the waste unsuitable for composting, shall not be considered to be yard waste.

2.11. "Windrow" means an elongated pile created by the placement of yard waste.

47-38E-3. YARD WASTE COMPOSTING AND PERMITTING REQUIREMENTS

3.1 Applicability

3.1.1. These regulations apply to all persons who handle or manage yard waste to produce compost and requires that:

3.1.1.a. Methods employed for yard waste composting shall be consistent with Section 4 of the Solid Waste Management Board's Program for the Proper Handling of Yard Waste, dated May 1, 1993.

3.1.1.b. Yard wastes are not combined with sludges, as defined in Title 47 Series 38 Section 2.52., "Solid Waste Management Regulations", petroleum contaminated soils; animal manures or other solid waste materials specified by the Chief.

3.1.1.c. A yard waste composting facility is not situated atop a partially or fully closed solid waste disposal unit at a permitted solid waste disposal facility; provided that, an existing solid waste facility may modify the permit to include yard waste composting operations. The Chief in cooperation with the county or regional solid waste authority shall determine if a major or minor permit modification is required.

3.1.2. After the first day of June 1994, it shall be unlawful to willfully deposit yard waste in a solid waste facility other than a designated (approved) yard waste composting facility or activity in the State of West Virginia.

3.2. Location Standards for Siting a Commercial Yard Waste Composting Facility.

3.2.1. The following location standards apply to commercial yard waste composting facilities, unless otherwise approved by the chief:

3.2.1.a. A yard waste composting facility shall be located in an area which has been authorized for composting facilities by the county and/or regional solid waste authority approved siting plan;

3.2.1.b. Yard waste composting facilities shall not be sited or constructed in areas subject to base floods a one hundred year flood plain and no facility shall be closer than three hundred (300) feet to any regularly flowing stream, perennial stream, pond, lake, wetland or spring;

3.2.1.c. Yard waste composting facilities shall not be located in areas which are geologically unstable or where the site topography exceeds six (6) percent grade;

3.2.1.d. Acceptable sites must have sufficient area and terrain to allow for proper management of run-on, runoff and leachate;

3.2.1.e. A yard waste composting facility shall not be located within two thousand (2000) feet of any health care facility, school, church, or similar type of institution. The chief may reduce this set-back distance if the owner or operator can successfully demonstrate that a nuisance will not be created due to the operation of such facility;

3.2.1.f. A yard waste composting facility shall not be located within two-hundred (200) feet of drinking water supply wells and occupied dwellings;

3.2.1.g. A yard waste composting facility shall not be located within fifty (50) feet of a federal or state highway right-of-way or within twenty-five (25) feet of a city street right-of-way;

3.2.1.h. The operational area of a yard waste composting facility shall not be located within one-hundred (100) feet of an adjacent property owner's boundary line;

3.2.1.i. A yard waste composting facility shall not be located on land where runoff drains into a sinkhole;

3.2.1.j. A yard waste composting facility shall not be located on land that has a seasonal high groundwater table (based on soil maps) less than two (2) feet from the land surface;

3.2.1.k. A yard waste composting facility shall not be located on land that has less than twenty (20") inches of soil over bedrock or on an impervious pan; and

3.2.1.l. A yard waste composting facility shall not be located within ten thousand (10,000) feet to the closest point of any airport runway used or planned to be used by turbojet aircraft or within five thousand (5,000) feet to the closest point of any airport runway used only by piston type aircraft or within other areas where a substantial bird hazard to aircraft would be created.

3.3. Location Standards for Siting Residential Backyard Composting Activities and Non-Residential Composting Activities.

3.3.1. The following location standards apply to residential-backyard-composting-activities and non-residential composting activities:

3.3.1.a. Non-residential composting activities shall not be sited or constructed in areas closer than one hundred (100) feet to any regularly flowing stream, perennial stream, pond, lake, wetland or spring;

3.3.1.b. Non-residential composting activities shall have sufficient area and terrain to allow for the proper management of run-on,

runoff and leachate provided that the facility is located on land no more than five acres in size;

3.3.1.c. Non-residential composting activities shall not be located within one hundred (100) feet of an adjacent property owner's boundary line without obtaining written permission from the adjacent property owner;

~~3.3.1.d. Residential backyard composting activities shall not be located within ten (10) feet of an adjacent property owner's boundary line without obtaining written permission from the adjacent property owner;~~

3.3.1.ed. Residential backyard activities and Non-residential composting activities shall not be located within one hundred (100) feet of a sinkhole; and

3.3.1.fe. Compliance with location standards for all yard waste composting facilities or activities do not relieve the owner or operator from compliance with all codes, ordinances or regulations.

3.4. Design and Construction of Commercial Yard Waste Composting Facility.

3.4.1. A handling area and proper equipment shall be provided to segregate waste other than yard waste and non-compostable components in the yard waste and to store such components in properly constructed containers prior to their disposal at a permitted solid waste disposal facility.

3.4.2. If the yard waste composting facility is located in any area where the seasonal high water table (based on soil maps) lies within five (5) feet of the ground surface, the composting and handling areas shall be hard-surfaced in a manner acceptable to the chief and diked to prevent entry of run-on or escape of runoff and other liquids, and a sump with adequately sized pump located at the low point of the hard-surface area shall be provided to convey liquids to a wastewater treatment, disposal or holding facility.

3.4.3. Accepted engineering practices shall be incorporated into the design of facilities located on sites with:

3.4.3.a. Springs, seeps, and other groundwater intrusions;

3.4.3.b. Gas, water, phone, sewage lines or other utilities under the active areas; or

3.4.3.c. Electrical transmission lines above or below the active areas;

3.4.3.d. Areas used for mixing, curing, and storing of compost shall be graded to prevent run-on, collect runoff, and provided with a drainage system to route the collected runoff to a wastewater storage, treatment, or disposal facility.

3.4.3.e. A buffer zone with the minimum width of one hundred (100) feet shall be incorporated in the facility design between facility adjacent property boundaries and the operational areas of the facility.

3.4.3.f. Roads serving the unloading, handling, composting, and storage areas shall be of all-weather construction and the design features for each shall be shown on drawings submitted in the application.

3.4.3.g. The design of a commercial yard waste composting facility shall be signed and sealed by a registered professional engineer.

3.5. Permits Required.

3.5.1. Applicability. No person may establish, install, construct or operate the following:

3.5.1.a. A commercial yard waste composting facility without obtaining a solid waste facility permit from the division, provided that first, the applicant fulfills the pre-siting requirements of section 3.4 of the West Virginia Solid Waste Management Regulations, Title 47, Series 38; or

3.5.1.b. A non-residential composting activity without the property owner/operator obtaining a registration number from the Division of Environmental Protection, Office of Waste Management, Solid Waste Management Section.

3.5.2. Exemptions. Residential backyard and non-residential composting activities shall be exempt from obtaining a commercial solid waste facility permit, such non-residential activity shall be located and operated in compliance with the location standards and the operational requirements as set forth in Sections 3.3 and 3.8 of these regulations.

3.6. Permit Application Requirements

3.6.1. The applicant for a permit to establish, install, construct, operate and close a commercial yard waste composting facility shall include in the permit application the following:

3.6.1.a. Copy of certificate of convenience and necessity (CON);

3.6.1.b. Copy of certificate of siting approval;

3.6.1.c. The name, address, and location of the proposed facility;

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

3.6.1.e. Copy of legal documents demonstrating that the applicant has legal right to enter and conduct commercial yard waste composting operations on the property including a copy of the deed description or lease agreement;

3.6.1.f. A safety program designed to prevent hazards and accidents at the proposed facility;

3.6.1.g. Proof of liability insurance to cover the operations of the proposed facility;

3.6.1.h. A detailed description of the activities to be conducted by the applicant at the facility.

3.6.2. An engineering report for an application to obtain a permit to construct shall contain, at a minimum, the following:

3.6.2.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;

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

3.6.2.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, wetlands, and drainage swales located within the site and in the site plan area.

3.6.2.d. A detailed description of the operation of the facility including precautions or procedures for operation during heavy winds, thunderstorms, snowstorms, prolonged freezing conditions and an operational narrative describing the following:

3.6.2.d.A. Collection methods to be employed;

3.6.2.d.B. Methods to be utilized in constructing compost piles or windrows, including equipment;

3.6.2.d.C. Proposed dimensions of compost piles or windrow;

3.6.2.d.D. Source of supplemental water to maintain an optimal moisture content of compost piles or windrows;

3.6.2.d.E. Proposed turning frequency, including method for determining that frequency;

3.6.2.d.F. Proposed duration of composting process, including curing or storage time, and the term of compost distribution;

3.6.2.d.G. Distribution plan for the yard waste compost;

3.6.2.d.H. Residue disposal plan including the location of disposal site(s);

3.6.2.d.I. Provisions for emergency response; and

3.6.2.d.J. Public information and education program.

3.6.2.e. 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.

3.6.2.f. Anticipated daily traffic flow to and from the facility.

3.6.2.g. A description of the ultimate use for the finished yard waste compost, method for removal from the site, and a plan for use or disposal of any yard waste compost that cannot be used in the expected manner due to poor quality or change in market conditions.

3.6.2.h. Identification of the personnel required to operate and maintain the facility and their job descriptions/responsibilities.

3.6.2.i. A detailed description of the origin, quality, quantity, and type of yard waste anticipated to be received at the proposed facility. The quantity of yard waste anticipated to be received shall be estimated in both cubic yards and tonnage, and the maximum amount of compost estimated to be produced daily, monthly and annually shall be stated.

3.6.2.j. 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 yard waste compost product and unusual traffic conditions.

3.6.2.k. The procedures for the development of an Operations Manual. The manual must contain general design information, detailed operational information and instructions including methods of monitoring for moisture, temperature, and other quality control measures during the composting process. In addition, the manual must outline the specific procedures to be used in monitoring, sampling and analyzing finished compost material, which must be acceptable to the chief, provided that, as a minimum the finished compost material shall be analyzed by an approved EPA method for the concentration levels of heavy metals prior to its use. If any heavy metal concentration level exceeds regulatory standards, the finished compost material must be disposed of in an approved landfill.

3.6.2.l. A detailed description of the yard waste composting technology to be utilized at the proposed facility.

3.6.2.m. Three copies of the application, including all supporting documents, shall be filed with the Division of Environmental Protection, Office of Waste Management, Solid Waste Management Section. A fourth copy shall be submitted to the Solid Waste Management Board, a fifth copy shall be submitted to the county or regional solid waste authority for the area in which the proposed facility is to be located.

3.7. Permit Application Fees

3.7.1. Each application filed for a commercial yard waste composting facility permit must be accompanied by a non-refundable application fee made payable to the Division of Environmental Protection in the amount of five hundred (\$500.00) dollars.

3.7.2. A fee of fifty (\$50.00) dollars or ten (10) percent of the application fee may be levied for any application refiled due to incompleteness.

3.8. Operational Requirements For Commercial Yard Waste Composting Facilities and Non-Residential Composting Activities.

3.8.1. The addition of any other solid waste including but not limited to hazardous, sludges, infectious, construction debris, demolition, industrial or other municipal solid waste to the yard waste is strictly prohibited.

3.8.2. Waste other than yard waste and non-compostable solid wastes shall be segregated from the compostable yard waste and promptly removed from the site for proper disposal at an approved facility. Segregated solid waste shall be removed from the facility at the end of each working day unless it is stored in containers specifically designed for storage of solid waste, provided that such material shall not remain at the facility more than thirty days.

Screening and removal of non-compostable solid wastes from the windrows or compost piles shall occur daily after the composting process is completed.

3.8.4. Access to a yard waste composting facility shall be allowed only when an attendant is on duty.

3.8.5. Any nuisance created by a commercial yard waste composting facility or a non-residential composting activity which causes harm or injury to any person or the environment shall be abated or the composting facility or activity may be required by the chief to cease and desist operations.

3.8.6. Shrubs, brush, tree prunings or any other bulky, woody type materials shall be shredded, ground or otherwise reduced in size prior to being mixed with other yard wastes to be composted.

3.8.7. The operator of a yard waste composting facility shall implement, and enforce a safety program designed to prevent hazards and accidents.

3.8.8. Open burning shall be prohibited.

3.8.9. Fugitive dust and mud deposits on main off-site roads and access roads shall be minimized at all times to limit nuisances and the operator must immediately abate any such nuisances.

3.8.10. Leachate or other runoff from a compost facility shall not be permitted to drain or discharge into surface waters except when authorized under a West Virginia NPDES permit issued by the division.

3.8.11. A one hundred (100) foot buffer zone shall be provided and maintained in a manner acceptable to the chief.

3.9. Other Acceptable Compostable Materials

3.9.1. Other acceptable compostable materials may include, but shall not be limited to, coffee grounds, kitchen scraps, pet and human hair, shredded newspapers, lint and sweepings, wood ashes, fish and poultry carcasses/litter, and animal manures.

3.10. Incorporation By Reference

3.10.1. The following sections of the West Virginia Solid Waste Management Regulations, Title 47, Series 38, are hereby incorporated and implemented as a part of these yard waste composting regulations and apply only to commercial yard waste composting facilities:

- 3.10.1.a. Section 3.4 "Pre-Siting Requirement for Commercial Solid Waste Facilities"
- 3.10.1.b. Section 3.13 "Bonding and Financial Assurance"
- 3.10.1.c. Section 3.17 "Draft Permit"
- 3.10.1.d. Section 3.18 "Permit Modification, Suspension and Revocation"
- 3.10.1.e. Section 3.19 "Transfer of Permit"
- 3.10.1.f. Section 3.20 "Permit Renewal"
- 3.10.1.g. Section 3.21 "Public Notice"
- 3.10.1.h. Section 3.22 "Public Comments and Request for Public Hearings"
- 3.10.1.i. Section 3.23 "Public Hearings"
- 3.10.1.j. Section 3.24 "Reopening of the Public Comment Period"
- 3.10.1.k. Section 3.25 "Public Participation File"
- 3.10.1.l. Section 3.26 "Public Availability of Information"
- 3.10.1.m. Section 3.27 "Issuance and Effective Date of Permit"
- 3.10.1.n. Section 3.28 "Permit Review by the Director"
- 3.10.1.o. Section 3.29 "Appeals"
- 3.10.1.p. Section 4.5.5 "Quality Assurance and Quality Control" (applicable subsections only)
- 3.10.1.q. Section 4.8 "Leachate Management"
- 3.10.1.r. Section 4.12 "Reporting"

47-38E-4. CLOSURE REQUIREMENTS FOR A COMMERCIAL YARD WASTE COMPOSTING FACILITY.

4.1. **Maintenance Minimization.** The owner or operator shall close the facility in a manner that minimizes the need for further maintenance. All solid waste, compost, and residues shall be removed and disposed in a permitted solid waste disposal facility.

4.2. Closure Plan and Closure Plan Amendments. The owner or operator of a commercial yard waste composting facility shall have a written closure plan.

4.2.1. Closure plan inclusions.

4.2.1.a. This plan shall identify the steps necessary to completely close the facility at the time when its operation is most extensive or operating at peak capacity. The closure plan shall include, at a minimum, a schedule for final closure, the anticipated date when wastes will no longer be received, the date when completion of final closure is anticipated, and intervening milestone dates which will allow tracking of the progress of closure.

4.2.1.b. The closure plan shall be submitted to the division as a part of the application for a permit. If found to be deficient, the closure plan shall be amended by the owner or operator within ninety (90) days of the chief's finding. If the amended closure plan continues to be deficient, the permit will not be issued until the amended plan meets the closure requirements.

4.2.2. Closure plan amendments.

4.2.2.a. The owner or operator shall update the closure plan that any changes in operation plans or facility design affects the closure plan. Updated plans shall be submitted to the division within fifteen (15) days of such changes. The chief may require that updated plans be modified to meet the closure requirements.

4.2.2.b. At any time during the operating life of the facility, the amended closure plan shall be made available to the division or the county or regional solid waste authority upon request.

4.3. Time Allowed for Closure. The owner or operator shall complete closure activities in accordance with the approved closure plan and within six months after receiving the final volume of wastes. The chief may approve a longer closure period if the owner or operator can demonstrate that the required or planned closure activities will, of necessity, take longer than six months to complete; and that he has taken all necessary steps to eliminate any threat to human health and the environment from the unclosed but inactive facility.

4.3.1. At least thirty (30) days prior to the beginning of closure activities, the owner or operator shall post a sign at all points of access to the facility notifying all persons of the closing, and state that further receipt of waste materials is prohibited. Further, upon closure, suitable barriers shall be installed at all former access points to prevent new waste from being deposited.

4.3.2. Notice of the upcoming closure shall be a Class II legal advertisement which must be published in a local newspaper at least thirty (30) days prior to closure and a copy of the notice must be provided to the chief within ten (10) days of the date of publication.

4.4. Site Reclamation Responsibilities. A uniform and compacted layer of soil that is at least six (6") inches in thickness and capable of supporting revegetation shall be placed over all disturbed land surface areas within the facility's boundaries. A revegetation plan shall be a part of the closure plan requirements and must conform with the provisions of Section 4.5.6. of Title 47 Series 38 Solid Waste Management Regulations.

4.5. Evidence of Proper Closure. A compost facility shall be deemed properly closed when the above actions have been taken by the owner or operator and duly authorized representatives of the chief verifies same by an on-site inspection and provides a written confirmation that closure has been completed properly.

47-38E-5. COMMERCIAL YARD WASTE COMPOSTING OPERATOR TRAINING AND CERTIFICATION PROGRAM.

5.1. Experience, Training and Education. In order to ensure the proper, safe and efficient composting of yard waste, operators of commercial yard waste composting facilities must have a minimum of two years on the job experience in yard waste composting or receive training and education in yard waste composting. Such training and education shall consist of but not be limited to forty (40) classroom hours. Topics should include:

5.1.1. Proper and safe equipment operation and equipment preventive maintenance.

5.1.2. Composting science technology which encompasses the composting process, composting methods, composting operations, site and environmental considerations, facility design and use, compost quality control, using and marketing compost, composting economics, record keeping and reporting, worker safety, business math and volumetric calculations.

5.2. Approved Training and Education Programs. Training and education for yard waste composting shall include programs sponsored by, but not limited to, colleges and universities, agricultural extension services, and county or regional solid waste authorities provided that all training and education programs must be approved by the Division of Environmental Protection, Office of Waste Management. A list of approved training and education programs shall be made available by the DEP, Office of Waste Management.

5.3. Certification. Any person who meets the requirements as listed in section 5.1. above shall be deemed a certified yard waste composting operator, provided that, written verification of on the job experience or training and education is properly submitted to the division on application forms provided by the chief.

RHEINLANDER: Good morning. My Name is Bill Rheinlander. I am a Public

Information Officer with the Office of Waste Management with the Division of Environmental Protection. The purpose of this meeting is to give citizens an opportunity to comment on proposed regulations for the management of yard waste and lead acid battery disposal. The DEP developed the regulations at the direction of Senate Bill 400. West Virginia Law requires all municipal solid waste landfills to cease receiving yard waste and lead acid batteries on June 1, 1994. The agency approved regulations must be filed with the Secretary of State's Office by August 15. Advertisement for the meeting ... we sent out a news release statewide, and also it was advertised in the Secretary of State's Register. And I'll introduce the other folks here from the DEP. To my right is Paul Benedim. He's an Engineering Technician with the Solid Waste Management Section. To his right is [pause] Mike Miller is an Environmental Analyst with the Solid Waste Management Section. To his right is Max Robertson. He is the Chief of the Office of Waste Management. And to his right is Dick Cook. He's the Assistant Chief of the Solid Waste Management Section. And at this time, Dick Cook will give a brief summary of the regulations.

COOK: [Not speaking into microphone, making it difficult to hear recording]

Primarily what we have attempted to do is to prepare what [noise over voice] reasonable requirements [inaudible] yard waste [inaudible] regulations in concert with the Solid Waste Management Board's yard waste composting programs and lead acid battery programs. One thing that I

would like to say, particularly since we have a small crowd here, unlike most hearings, that these proposed regulations are just as important as any of the other regulations. In lieu of the fact that it's a smaller crowd and not as much of a sensational issue; therefore, I would ask that anything in these regulations that are proposed that you feel may go beyond what will reasonably allow the program to have all the assets that are needed [inaudible] bring those concerns to our attention, particularly in light of the fact that these regulations were prepared shortly after [inaudible] sludge management regulations were prepared. And we certainly do not want to over regulate [inaudible] or get burdensome requirements in here that would discourage the activity instead of encourage [inaudible]. Please share your concerns with us on anything, no matter how small it may seem to be so that we have an opportunity to make sure this is what's best for the state and not a [inaudible]. Primarily what we've [inaudible] in the regs is to establish three types of facilities or activities. One being a commercial yard waste compost facility, which primarily would be a facility that accepts waste from sources other than one generator, but from many people generating such material to a facility that's in the business commercially of processing the yard waste. And we did put a maximum limit of 3,000 tons per month on that size facility. And that figure was derived at based on the [inaudible] state wide in communication with the state's office [inaudible]. For non-residential composting activities, we felt were necessary to address

landscape contractors, nurseries, greenhouses, lawn and garden companies [inaudible]. And we feel that it would be in the best interest [inaudible] commercial facility status for those type of people because it's full time generating these materials and [inaudible] the need of service. Back yard. Residential back-yard composting activities is primarily the lowest technology where John Q. Public or the residents of West Virginia would be engaged in yard waste composting. Should point out that neither non-residential activities or residential back-yard activities require a permit. They do not. But they do have some requirements so that we're aware of what's going on in your garden [inaudible] so that [inaudible] regulates those activities to make sure they're not degrading the environment. I believe there are some locations standards in regard to backyard facilities. If you're in an urban area, hopefully your activity will not inconvenience or interfere with adjacent neighbors or property owners.

RHEINLANDER: Thank you. We'll have two parts. We'll receive comments.

When you come up to give your comments, go to the microphone and just let us know whether it's on a battery issue or a yard waste issue. And then afterwards we can have an informal question and answer about the regs. So it's three people who would like to speak. Edgar Hooper, come to the podium.

HOOPER: Thank you. I'm with the WVU Extension Service, and I'm here representing Ron Swope, who is chairman of our subcommittee on

composting. Ron is the County Extension Agent in Fairmont, and that's one of those committees that the Extension Service has working in this area. So I'd just like to share the points with [inaudible]. He's in Fairmont today and couldn't come. And I'll be happy to forward these on to you. [Noise over voice.] ... information you all prepared and share it with some folks with the Extension, and this was their concern. The first point Ron mentioned was the term "backyard" should be removed from the regulations. Backyard is not defined and it implies a specific area of a residence. It is a general term commonly used to mean different things to different people and has no place in a legal document without a specific definition. The term "residential composting" conveys about just as much information as residential backyard composting without the possibility of haggling over location. The second point. This refers to Section 3.91 - Other Acceptable Compostable Materials. Also applies to residential and non-residential facilities. Residential composting should permit these items as long as they don't create a nuisance beyond the definition of the regulations. Number 3, Section 2.4. Under definitions, it should be worded in such a way that the mere presence of molds, bacteria, fungi, and other insects do not constitute a violation, since these organisms are part of the composting process. Present wording says, "Results In." These organisms can seem to make their presence constitute a nuisance. And he was concerned about that. Number 4 is the term "seasonal high ground water table," which is Section

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3.2, 3.21, and 3.42 defined. Is it based on soil maps, soil type and other readily determined criteria, or is it something that can haunt an operator after the facility is built because of one unusually wet season. The operator should be able to determine this information before the facility is built. His last concern: What is the rationale for permitting fish and poultry carcasses/litter under Section 3.91, while prohibiting sludges, what kind, and animal manures, which is Section 3.1. There needs to be a provision for the farmers composting animal manures. That was the end of his concerns. And I'd just make a comment. I've spent a lot of time in the last two years in this area, and I certainly agree with Mr. Cook. I think it needs to be something that will encourage composting, particularly in residential areas, and not prohibit it. And I think basically that you have that because the waste treatment in this state in yard waste, I think, is greater than we have a tendency to think, and I feel certainly this is an area of properly managing the yard waste area.

RHEINLANDER: Steve Hannah.

HANNAH: My name is Steve Hannah with the West Virginia Farm Bureau. We have almost in excess of 14,500 members in the state, and many of them have been composting for years, and many of them are in the landscaping and greenhouse business. And we'd like to make a few comments about this. I'm not sure that your statement, Mr. Cook, is ... I'm trying to make them simple is what happens as the end result. First of all, I think it is

Frisel absolutely necessary that you withdraw these and redo them simply for the ~~physical move~~ ^{physical note} ~~physical move~~ ^{Fiscal Note}. I didn't think the unknown statement in the ~~physical move~~ meets the requirements of 29-A. I think it's this type of activity and regulations that may be why we have a 12% unemployment rate in the state, when you do not take into consideration what the economic impact on individual businesses, state, and county government. And I just think you have to do that. Providing you don't do that, though. That you don't withdraw them and start over again, we have some comments we'd like to make. In Section 2.9 - Yardways Composting, where I think it's unclear where you use in the definition minimum technology, low-level technology, and thus. I know there's somewhat of an explanation in the supplement, but there probably should be in the regs themselves. As Mr. Hoover mentioned, many people have been composting using animal manure, and 3.11A recommended that they [inaudible]. I'm not sure. I couldn't tell if you differentiated between animal manure and poultry litter, but there is a real need, particularly in poultry litter, to add chips, wood chips, or other carbon material to keep that carbon nitrogen balance there. And so we'd recommend [inaudible] would be added to that. I think that also we all need to be concerned what will happen with this yard waste material, particularly from nurseries, greenhouses, and so forth, once the solid waste authority or facilities will not be able to accept yard waste. Will there be some other facilities available for them at that time? I think that's necessary to have.

We're not sure that there's any need to have backyard and also the definition of backyard. Those need to be in there whatsoever. I think if you do leave them in there, that Section 3.3 on residential backyard and non-residential really needs to be cleaned up considerably. Very unclear. One area in there talks about the distance from a sink hole, as I read it, if you have a compost and it's a mile away from a sink hole in that watershed, you couldn't have it. So you recommended a hundred feet or some specified number of feet. I guess in summary, to put it blunt, these are a very poor set of regulations and we'd like to see you start over on them. Thank you.

RHEINLANDER: Avis ltes.

ITES: [Speaking from her seat, not into the microphone] I wanted to talk about the ^{LAR's} [inaudible].

RHEINLANDER: You can go ahead.

ITES: Well, I'm waiting on my comments; they're being faxed to me.

RHEINLANDER: Oh.

ITES: Hold on for a few minutes.

RHEINLANDER: You're the last speaker.

met UNIDENTIFIED: Let's open the floor for discussion. If we're not doing [inaudible]

RHEINLANDER: That's fine.

Dick UNIDENTIFIED: We're a small group here. Appreciate it [inaudible] valuable comments. [inaudible]

ITES: Okay, my name is Avis ltes, and I have some comments on your regulations

for lead acid batteries. And I have to apologize. I picked up my lead acid battery folder, but I had left my set of regulations outside that folder. So these were faxed to me, and it's a little difficult reading them.

Deck
UNIDENTIFIED: Would you like to utilize this?

ITES: Well, the regulations came out okay. It's just that my comments. And this was last week when I was going through them. Just a couple of comments that I would like to make on the lead into the regulations. I'm not sure who prepared the [inaudible] ...

Deck
UNIDENTIFIED: Solid Waste Management Board.

ITES: Okay. Solid Waste Management Board. I just have a couple of points to make right there because I think there are some statements, while they may be true, I don't think they're backed up with anything, and I think going about making statements without any backing can, down the road, lead to precarious situations. The second paragraph says, "Lead acid batteries commonly used in vehicles can create disposal problems." My question is, do they? We can always make statements lots of times that things can do this, but, indeed, we may have most of the people out there in West Virginia that are recycling their batteries or are disposing of them in a proper manner. So, while they can create problems, do we have a problem here in this state? The next difficult sentence I had is, "Landfill presents the risk of groundwater contamination." I would like for that to lead on further to say from what. Because I know that we have monitoring wells set up at our

landfills. They do regularly monitor the groundwater, so what are the results of that groundwater monitoring? Indeed, is there groundwater contamination under the new regulations set up for landfills and what can go into landfills, the liners and the system that is in place. I question just how big a potential of groundwater contamination there is. Given present disposal options. Well, what are the present disposal options? And it says recycling is the only safe solution. My question is why. These are statements. They all make sense, and we all tend to get led by the hand down this road, but I would like them substantiated. On page 2 of the Solid Waste Management Board, it says, "Solid Waste Management Board study indicates batteries of all types make up a small percentage of our waste drain." My question is how small? Small is a relative term. Is it 2%, is it 15%, is it less than 50%? I think knowing how small that percentage is can give us an idea as to the potential if there would be groundwater contamination from batteries being put into landfills. Okay, there is also the statement made, and I'm not a chemist, but I ask the question: When large quantities of sulfuric acid and lead, which are enclosed in the batteries, if the lids come off in the cells, the acid is released to react with other contents of a landfill. That's a true statement, but it goes on to say, because of this, these items should never be permitted into a municipal landfill. And on the surface I would agree, but is it not also true that the sulfuric acid could be reacting with something in the landfill which would

neutralize that sulfuric acid so that we can't always assume that because an acid is released in a landfill that it is going to create an even larger problem. Senate Bill 400 states that effective June 1, 1994, it shall be unlawful to deposit lead acid batteries in a solid waste landfill facility in West Virginia. That is probably a true statement; however, I would like to make a point that since the passage of the Resource Conservation and Recovery Act, lead acid batteries have been deemed a hazardous waste by the federal government, and since the adoption of those regulations by the state of West Virginia, they have been declared a hazardous waste here in West Virginia for quite some time now. And it is illegal to put hazardous waste in solid waste landfills, period. So the premise of my comments on these regulations is going to be dealing with the fact that I recognize lead acid batteries as a hazardous waste under the U.S. EPA law, and therefore, while household hazardous waste and if these regulations are intended for individuals, households and not industry and not business and government, then I think these regulations need to clarify that because industry does something different with the batteries than what is proposed here in these regulations. We treat our batteries as a hazardous waste. Specifically under the regulations, under Section 3:1, where it says certain disposal is prohibited, and I'd just like to reiterate that while these regulations give the date of June 1, 1994, these have already for other than households, these are already declared a hazardous waste by the state of West Virginia under

Hazardous Waste Management laws and by the U.S. EPA. But farther down in 3.1, the last sentence there, the last line, "or a collection or recycling facility authorized under the laws of the State of West Virginia." I know these are new regulations, and I know we have the solid waste management law. We have the hazardous waste laws, so my question is, under which laws are you talking about? Is it solid waste? Is it hazardous waste? Will it be under recycling laws? Okay. Under Section 3.2, where it talks about disposal by dealers, and it says, "no lead acid battery dealer shall dispose of a spent battery" okay, it goes on down. My question with Section 3.2 is, I don't think it takes into account, what if you are taking your batteries to be recycled out of state. Okay? Because you're talking about the laws of West Virginia, but there are instances where people may be recycling out of state. So how can you tie this regulation into situations where the batteries are taken out of state? Under 3.3.1, where it says "the person who is at the point of transfer," and I'm assuming it's sort of like a ... someone who sells batteries, then they must take at least one battery to be recycled in exchange for that. It seems that these are broad enough written that if there is one and someone wants to turn in one, he would have to take it, but what do you do in a situation if someone is not turning a battery in? Simply because this needs to be clarified because later on in the regulations you talk about reports that have to be made and filed and kept on file. So reports dealing with how much you sold as to how much you took in and

how much was recycled may not all be cohesive simply because of people may not be bringing their batteries in to someone where they're buying a battery. Okay. Under 3.3.2(c) it says, "state rules require us" ... and this is the statement that has to be posted at these facilities, "state rules require us to [inaudible] lead acid batteries for recycling in exchange for new batteries purchased from the dealer." If someone brings in batteries and there is this dealer who is accepting those, then under the hazardous waste management laws of West Virginia, are they a TSD facility, which is a treatment storage and disposal facility. Because they will have time frames put on them as to how long they can keep those batteries. So, there appears to be a lapse here between the two. Down under section 3.4, Dealers' Reporting Requirements, it talks about ... records are to be kept on file at the collection facility for a period not less than five years for inspection and maybe there is some rhyme or reason for the five years. Under the hazardous waste management laws, records typically are kept for a period of three years. So, unless you were pulling a figure out of the air, it would seem that industry that deals with hazardous waste and solid waste, if we can keep those record keeping requirements consistent, then we don't have to continually go through and check and make sure we're meeting that time frame. So my recommendation would be for a three-year period. The dealers should also send a copy of the report annually to the local regional solid waste authority in the county or in the region in which the lead acid

battery storage facility is located. I know you all anticipate action being taken by county or region solid waste authorities. And maybe for some of those authorities they may be far enough along in their regulations and in their set-up that they would do something with these reports, but I also know that we have solid waste authorities that are just struggling to maintain an office in the county that they work in. So it seems to me that we are not only burdening a dealer with reporting requirements to an agency, a quasi-agency that has no jurisdiction or no authority of enforcement on ... and you are in turn burdening that quasi-agency with receiving these reports, but you don't say what they're supposed to do with them. Now, maybe the intent was to let those solid waste authorities decide what to do with those reports, but it seems that we are creating report writing for the sake of creating report writing. Under Section 3.6 for Storage, "new lead acid batteries and spent lead acid batteries shall be stored safely." Safely to a dealer may not be safely to a solid waste inspector. It may also may not be safely to a hazardous waste inspector. There is criteria for storage of hazardous waste. If they are stored in drums, it's a weekly inspection and a record of those. Lead acid batteries can create a safety hazard if they're stored in drums. So "safely" there is a very nebulous word. And I think there should be some guidance as to what safely is. Under Section 3.7, you talk about buy-back centers, and a dealer who is out in one of the rural areas of the state may only receive four or five

batteries a month or a year. The buy-back center may be several miles away. What is the storage limitation that he can safely store those spent batteries until the trip to the buy-back center is cost-effective for him? So, overall I think these regulations need to be tied very closely to the hazardous waste regulations. Or these regulations need to be made clear up front because households, individual households, are not regulated by the hazardous waste management regulations, then these regulations apply to individuals, not to government agencies, not to industry, not to any other type of business because they are conflicting and some of the requirements need to be tied down more closely. Those are my comments.

RHEINLANDER: Thank you. Anybody else want to make a comment for the record, come forth.

CHUCK: [Not speaking directly into microphone; very difficult to understand] My ^{Forth} name is Chuck [inaudible] with Sycamore Landfill. I would like to address the section where it has the amount of tonnage of 3,000 tons of [inaudible]. I believe that should be changed [inaudible] technologies [inaudible] is contaminated soils can be composted, but the main reason would be is the seal situation rather than by the month totally, if was set up where it was something by the year [inaudible]. But I'm also concerned, too, about the contaminated soil being excluded from the composting with yard waste.

There is a possibility that they can compliment each other. That's all I have.

RHEINLANDER: Anyone else? Just state your name into the microphone, please.

BUMGARDNER: My name's Rodney Bumgardner, and I have comments concerning the yard waste disposal. One thing I see in there by law, come June first of next year, nothing can go into an existing landfill, yard waste. For a commercial facility to be operational by June first of next year. First of all, these regulations will have to be finalized. As to when that will be, I don't know if anybody really knows that. Then the counties, wherever they're wanting to construct a commercial facility would have to be notified and all of their disposal plans would have to include siting for yard waste facilities. They may or may not have those in place. The Public Service Commission will have to be brought into it to obtain a certificate of need. I don't know what process they have in place or how long it will take them to set up their procedures for handling this specific certificate of need. Then you have all the reports that have to be prepared. All the engineering reports, distribution plans, operation and maintenance manuals, and then again you have to worry about the [inaudible]. If you can go through an existing permitted facility, you may not have a problem. But if a commercial facility is going to have to obtain a DES permit to discharge any [inaudible], the time frame with that should be taken into account. Then it has to go to the DEP for review process, and typically goes back and forth with any application, a couple of times anyway, to get everything ... the i's dotted and t's crossed. Then we come to the public comment period, public hearings, which may or may not drag out, and then the appeals, and the finally you're able to begin

3.1.2.

construction. Site grading, setting a new foundation in where the compost would be placed. And then also you have to get the people trained to be able to work a facility, that's the operator. I have real concern whether any commercial facility can be operational by June first of next year. It seems that many of these steps to go through aren't nailed down, aren't finalized to where they can be processed easily. Another area of concern I have with these. There doesn't seem to be any discussion in there as to whether an existing landfill can begin a composting operation on an area that wasn't used as landfill and what procedures would have to be followed for an existing permanent facility. No discussion as to whether it would be minor or major modifications to get a permit to allow that. I would like to suggest that since many of the operating requirements, location standards are similar, or not exactly the same as the solid waste facilities to begin with, that it would be a minor modification to their permit, describing what locations they plan to use and general discussion of what procedures they will follow and how they will comply with regulations, rather than go through the full major modification procedures. And that's all I have at this time.

Permit. Modification

RHEINLANDER: Thank you. Anyone else?

UNIDENTIFIED: I'd like to raise a question, Bill. I guess one of the things I forgot to mention ... [not speaking into the microphone; impossible to hear well enough to get more than a word here and there]

UNIDENTIFIED: [Not speaking into microphone] I may be wrong, but you guys [inaudible] I don't think these particular regulations address those at all. I don't think they address the use, in other words, we certainly want to make sure they're not addressed ... that they certainly do not restrict the use of this compost. [inaudible]

UNIDENTIFIED: ... commercially and from the homeowner's standpoint, too. Because, you know, there's some pretty devoted home gardeners in this state out there anyway, who in the course of a year generate a lot of compost. And I'm doing it in the backyard now, been doing it for years. So I guess that was the key fix, [inaudible]. Whenever he goes out to give a program, he always encourages the use of composting. He raises the question, why are you gonna do this if you're not going to use your property again. So I think that is a very possible ... particularly, I think with the homeowners. The commercial people, I believe that's not going to be a concern. [inaudible].

back **UNIDENTIFIED:** Are you suggesting that if we don't find anything in here at all dealing with use, that we should leave it as such or add a section that directs uses? I would think that having a section that addresses uses would cause more harm than good.

UNIDENTIFIED: Yeah, for the homeowners, but not the commercial people. I think it's another state charges of regulation, if you self-compost, it's got to meet a certain standard and be [inaudible].

Dick **UNIDENTIFIED:** Yes, I believe that holds true in regard to sewage sludge regulation. I believe we do have some sections that deal with labeling requirements, restricting use of sewage sludge.

UNIDENTIFIED: So I think it raises the question, who has the authority. Do you all have the authority to do that, or is that part of Agriculture's [inaudible].

Dick **UNIDENTIFIED:** I think the way that works is the legislature will direct us, just like the way they [inaudible]. You've brought up some very interesting points. We were directed to do this, and we did share these with the other section leaders, but they were donned only to maybe get down to the nitty gritty as far as the drafting of the table with specialists and [inaudible]. We'll follow up on use, and if it's not in there, I think we'll leave it as such.

UNIDENTIFIED: There is stated in there under the commercial facilities in the permit application requirements, saying that there has to be a distribution plan for yard waste compost. And so that's stated that the commercial facilities have to have a plan for it up front.

Pick **UNIDENTIFIED:** The primary reason for that is so we don't end up with someone in the business commercially who is only wanting to stick dollars in their pocket from people who no longer can take this to the landfill and have to get rid of it in a lawful manner and after so many years walk away and leave a mountain of composted yard waste or other type of material without really intending [inaudible]. We appreciate your comments [inaudible] and not having the revisions and modify systems facilities permit to allow

composting [inaudible].

RHEINLANDER: Anyone else? If you'd like a copy of the tape, I've got business cards, you can send me a \$10 check, and we'll send you a copy. At this time we'll close out the hearing. Thank you for coming.

[End of recording].

[Transcriptionist's note: The original recording was very low quality, with several participants not speaking directly into the microphone. As a result, much of what was recorded was choppy and inaudible. I have attempted to transcribe everything that was understandable. Also, names were not spelled, and I have transcribed them they way they sounded.]

WEST VIRGINIA DIVISION OF ENVIRONMENTAL PROTECTION

PUBLIC HEARING

The Division of Environmental Protection asks for your cooperation in recording these proceedings. By completing this form, you will help us determine who attended and who would like to make a statement. PLEASE PRINT CLEARLY.

Name Rodney Bumgardner

Address 26 Lee Drive
St. Albans WV 2577

Do you wish to make a statement? Yes No

Aug. 6, 1993

RE: Proposed Yard Waste and Lead Acid Battery Regulations

WEST VIRGINIA DIVISION OF ENVIRONMENTAL PROTECTION

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Name Ava Zeitz

Address 1700 MacCorkle Ave SE
Chas.

Do you wish to make a statement? Yes No

Aug. 6, 1993

RE: Proposed Yard Waste and Lead Acid Battery Regulations

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Name Ed Hooper
Address 2104 Agricultural Sciences Building
West Virginia University
Morgantown, WV

Do you wish to make a statement? Yes No

Aug. 6, 1993

RE: Proposed Yard Waste and Lead Acid Battery Regulations

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Name STEVE HANNAN

Address W.V FARM BUREAU

1-RED ROCK RD

BERKHAMON, WV 26201

Do you wish to make a statement? Yes No

Aug. 6, 1993

RE: Proposed Yard Waste and Lead Acid Battery Regulations

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Name Kelli Wolfe Bright
Address Robinson & McElwee
PO Box 1791
Charleston, WV 25326

Do you wish to make a statement? Yes No

Aug. 6, 1993

RE: Proposed Yard Waste and Lead Acid Battery Regulations

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PLEASE PRINT CLEARLY.

Name Glenn Jarrell

Address 1615 Washington Street East
Charleston, WV 25311

Do you wish to make a statement? Yes No

Aug. 6, 1993

RE: Proposed Yard Waste and Lead Acid Battery Regulations

WEST VIRGINIA DIVISION OF ENVIRONMENTAL PROTECTION
PUBLIC HEARING

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Name CHARLES A. FORTL
Address 4301 SYCAMORE RIDGE RD
HURRICANE WV 25526
SLI

Do you wish to make a statement? Yes No

Aug. 6, 1993

RE: Proposed Yard Waste and Lead Acid Battery Regulations

WEST VIRGINIA DIVISION OF ENVIRONMENTAL PROTECTION

PUBLIC HEARING

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Name James Endicott
Address Box 191
Red Jacket WV 25692

Do you wish to make a statement? Yes No

Aug. 6, 1993

RE: Proposed Yard Waste and Lead Acid Battery Regulations

WEST VIRGINIA DIVISION OF ENVIRONMENTAL PROTECTION

PUBLIC HEARING

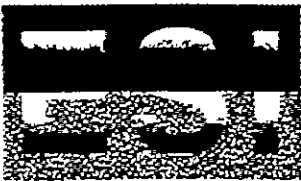
The Division of Environmental Protection asks for your cooperation in recording these proceedings. By completing this form, you will help us determine who attended and who would like to make a statement. PLEASE PRINT CLEARLY.

Name Jimmie Cisco
Address Rt-1 Box 17
Meadow P WV 25682

Do you wish to make a statement? Yes No

Aug. 6, 1993

RE: Proposed Yard Waste and Lead Acid Battery Regulations



BIOREMEDIATION

P.O. Box 11677
996 Crafters Lane
Charlotte, NC 28220
Phone: (704) 554-0088
Toll Free: (800) 831-7715
Fax: (704) 521-8004

Natural Solutions for the Environment

July 28, 1993

West Virginia Division of Natural Resources
Waste Management Section
Solid Waste Management Office
1356 Hansford Street
Charleston, West Virginia 25301

RECEIVED

AUG 06 1993

Division of Environmental Protection
Office of Waste Management

Attention: Mr. Richard Cooke

Subject: Proposed Rule - Title 47, Series 38E - Yard Waste

Dear Mr. Cooke:

I appreciate the opportunity to review the yard waste composting regulations. In my review, I have developed the following comments related to the commercial yard waste composting facility.

3.10.1.8 •

Since "yard waste" means grass clippings, weeds, leaves, brush, garden waste, shrub and tree prunings, and other living or dead plant tissues, and no other solid waste, why is groundwater monitoring necessary? What are the constituents of concern?

3.4.3.9 •

I think that composting guidelines or minimum requirements are necessary; however, I do not feel that a comprehensive engineering plan (signed and sealed by a P.E.) with completed monitoring wells, leachate control and possible wastewater treatment should be necessary.

In my opinion, the West Virginia Division of Natural Resources should promote composting of "yard waste" as a cost effective means to assist this serious solid waste problem. If the West Virginia Department of Natural Resources requires too many costly monitoring programs for natural organic material, then the program will be finished before it gets started. Recycling should be implemented to reuse the waste product, thus providing cost effective solutions to practical problems.

Sincerely,

ESI BIOREMEDIATION, INC.

Ronald C. Gilkerson
Vice President

RCG;krh

West Virginia Farm Bureau

Member of American Farm Bureau Federation

1 Red Rock Road, Buckhannon, WV 26201

304/472-2080

Statement of the West Virginia Farm Bureau
1 Red Rock Road
Buckhannon, WV 26201



Division of Environmental Protection
Office of Waste Management
WVFB Comments on Rule No. 38E
"Yard Waste Composting Regulations"

My name is Steve Hannah, Executive Secretary of the West Virginia Farm Bureau. The West Virginia Farm Bureau is a membership organization with membership in excess of 12,500 family members.

I would like to make the following comments on the proposed regulations dealing with composting of yard waste.

First of all, we would request that these rules be withdrawn because they lack a fiscal note as required by 29A-3-5.

Simply stating that the economic impact on all concerned is UNKNOWN is not satisfactory.

We would suggest that you find out what impact these regulations have on the businesses of this state that are in the nursery, greenhouse, landscaping, tree trimming business and to the general population. Not to mention state and county government.

Providing you do not take our recommendations to withdraw these regulations and continue the process, we would like to make the following comments on the regulations.

47-38E-2 Definitions

2.9 "Yard Waste Composting" - It is unclear as to what the meaning of the terms "minimal technology, low-level technology, intermediate level technology, and high-level technology" are. We would suggest that these terms be defined.

47-38E-3 Yard Waste Composting and Permitting Requirements

3.1.1A Yard waste is not to be combined with animal manure, etc.

In composting animal manure, especially poultry litter, many times, the carbon and carbon nitrogen ratio is not sufficient to make a good compost therefore, leaves, wood chips and other material.

Therefore, we recommend that yard waste be allowed to be combined with manures.

3.1.2 The question must be asked, if yard waste is not allowed in solid waste facility after June 1, 1994, will other facilities be available? Particularly to landscape, nurseries, greenhouses or even the individual who chooses not to compost material.

3.3 Location standards for siting residential backyard composting activities and non-residential composting activities.

These requirements seem unnecessary and unclear particularly 3.3.1b - This is not clear to all. 3.3.1e - We would suggest that a specific number of feet from a sinkhole - 100 feet.

Many landowners have had compost activities for years without problems from neighbors. These restrictions appear to be unnecessary.

2.9 Other acceptable compostable materials - We would recommend that animal manure be added to this list.

In summary, it appears that the agency has taken a very simple requirement of state law and created an excessive set of regulations. Again, we would request that these regulations be withdrawn until a realistic fiscal note is developed and that many of the issues as they relate to residential and non-residential section be deleted.

Thank you for the opportunity to make these comments.

Appalachian Power Company
PO Box 2021
Roanoke, VA 24022-2121
703 985 2300



Mr. Bill Rheinlander
West Virginia Division of
Environmental Protection
Office of Waste Management
1356 Hansford Street
Charleston, West Virginia 25301

Re: Proposed Rule - Title 47, Series 38E
Yard Waste Composting Regulations

August 4, 1993

Dear Mr. Rheinlander:

On behalf of Appalachian Power Company, I would like to express my appreciation to the Office of Waste Management for the opportunity to offer comments on the above-cited proposed regulation. We support the State in its efforts to conserve landfill space and to turn materials that would otherwise be discarded as waste into a usable product.

We feel that the regulation, as written, should specifically mention the disposal of materials that would meet the definition of "yard waste," but for some reason or another, would not be suitable for composting. As now written, the regulation includes a prohibition of the inclusion of this type of material in composting operations (as in Section 47-38E-3.1.1.b, which prohibits composting of wastes combined with sludges, contaminated soils, etc.), but at no point is consideration given to removing the prohibition against the disposal of such material in a landfill. We suggest that this may be accomplished by adding the following to the definition of "yard waste" at 47-38E-2.10:

"Except that such materials which, due to inadvertent contamination or mixture with other substances which render the waste unsuitable for composting, shall not be considered to be yard waste."

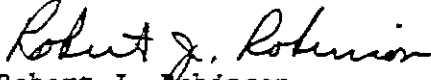
The Company submits that without such a clarification, a person possessing mildly contaminated plant matter (for instance, grass clippings or leaves contaminated with motor oil) could be faced with a situation in which there are no disposal options. It is clear that this material should not be composted, however, a landfill operator may feel that the landfill may not accept it since it is a yard waste. The Company further submits that this is in keeping with the intent of the Legislature as Article 20-11-8.a of the Act, which prohibits yard waste disposal in landfills, states "...reasonable and necessary exceptions to such prohibitions may be included as part of the rules promulgated

Mr. Bill Rheinlander
August 4, 1993
Page Two

pursuant to subsection (c) of this section." The Company asks that the Office of Waste Management amend the proposed regulation by adding the above language.

If you have any questions, please feel free to contact our office at the above address.

Sincerely,


Robert J. Robinson
Environmental Affairs Director

RJR:d



West Virginia University
Extension Service

Cooperative
Extension Service

2104 Agricultural Sciences Building
P.O. Box 6108
Morgantown, WV 26506-6108
304/293-3408 or FAX 304/293-6954

August 10, 1993

Mr. Bill Rheinlander
DEP Office of Waste Management
1356 Hansford Street
Charleston WV 25301

Dear Bill:

Enclosed are the written comments that I presented last Friday in Charleston at the Public Hearing on Composting Regulations. These were prepared by Ron Swope. Thanks for your cooperation and support.

Sincerely,

W. Edgar Hooper
Assistant Extension Specialist
Waste Management
Extension Professor

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To <i>B. Rheinlander</i>	From <i>E Hooper</i>	
Co. <i>DEP - W.M.</i>	Co.	
Dept.	Phone #	
Fax # <i>358-0256</i>	Fax # <i>293-6954</i>	

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2104 Agricultural Sciences Building
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 Morgantown, WV 26506-6108
 304/293-3408 or FAX 304/293-6954

August 10, 1993

Mr. Bill Rheinlander
 DEP Office of Waste Management
 1356 Hansford Street
 Charleston WV 25301

Dear Bill:

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Sincerely,

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 Assistant Extension Specialist
 Waste Management
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"Comments on proposed rules to "Yard Waste Composting Regulations"

1. The term "backyard" should be removed from the regulations. Backyard is not defined and it implies a specific area of a residence. It is a general term commonly used to mean different things to different people and has no place in a legal document without a specific definition. The term "residential composting" conveys just as much information as "residential backyard composting" without the possibility of haggling over location.
2. Does Section 3.9.1 "other acceptable compostable materials" also apply to residential and non-residential facilities? Residential composting should permit these items as long as they don't create a nuisance (defined in the regulations).
3. Section 2.4 under definitions should be worded in such a way that the mere presence of molds, bacteria, fungi or insects does not constitute a violation since these organisms are all a part of the composting process. Present wordings say "...results in..." these organisms and seems to make their mere presence, constitute a nuisance.
4. Is the term "seasonal high groundwater table" (Section 3.2.1.j and 3.4.2) defined? Is it based on soil maps, soil types or other readily determined criteria, or is it something that can haunt an operator after a facility is built because of one unusually wet season? The operator should be able to determine this information before the facility is built.
5. What is the rationale for permitting fish and poultry carcasses/litter (Section 3.9.1) while prohibiting sludges (what kinds) and animal manures (Section 3.1.1.b)? There needs to be a provision for the farmer to compost animal manures.

Ron Swope
Extension Agent
P.O. Box 1628
Fairmont, WV 26555-1628
304/366-3331

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Ron Swope
Extension Agent
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TOTAL P. 01



S&S GRADING, INC.

Route 5, Box 559 • Clarksburg, West Virginia 26301 • (304) 745-3234 • FAX (304) 745-4840

August 5, 1993

Reply to:
110 Lee Street West
Charleston, West Virginia 25302

Mr. Bill Rheinlander
Division of Environmental Protection
Office of Waste Management
1356 Hansford Street
Charleston, WV 25301

RE: Proposed Rule - Title 47, Series 38E
Yard Waste Composting Regulations

Dear Mr. Rheinlander:

S&S Grading, Inc. offers the following comments concerning the referenced proposed rule.

1. The regulations appear to address new facilities only. Should an existing permitted solid waste facility desire to initiate a yard waste composting operation, there seems to be no procedure outlined. I would suggest since a permitted solid waste facility has already met siting approvals from county and state levels that a minor modification be allowed to facilitate composting.
2. The definition of non-residential composting activities under Section 2.3 lists specific items that may be received. Can this be expanded to include the other acceptable compostable materials listed in Section 3.9.

Thank you,

Michael A. Fioravante
Vice President

MAF/kaw

Bob Delauter
Delauter's Mowing Service
404 High Street, Apt. G
Saint Albans, WV 25177

Office of Waste Management, DEP
Mr. Bill Rheinlander
1356 Hansford Street
Charleston, WV 25301

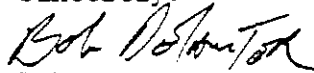
Dear Sir;

I have a few comments to make concerning the proposed Yard Waste Composting Regulations. For ease of discussion I have indicated the section of the regulations I am referring to before each comment.

- 2.2 This definition is based on tons per month and fails to allow for the seasonal nature of yard waste generation. I suggest this figure and the similar one in section 2.3 be amended to annual figures.
- 2.5 I feel "other such material" in this section should be changed to "other acceptable compostable material".
- 2.9 What are the definitions of the various levels of technology cited in this section?
- 2.10 This definition seems to include grass clippings which are left on the lawn to rot. Is this intentional?
- 3.1.1.b Both animal manures and petroleum contaminated soil should be deleted from this section and added to section 3.9.1 as Other Acceptable Compostable Materials.
- 3.2.1.b An "area subject to a base flood" is the same as a hundred year flood plain. Why not call it that like DEP does in its other regulations?
- 3.2.1.1 Yard waste composting should not attract birds unless other compostable material is included such as kitchen scraps.
- 4.4 Why does this soil need to be compacted if it is simply to support vegetation?

Thank you for listening (reading) my concerns.

Sincerely:


Bob Delauter



Division of Resource Management

West Virginia University

College of Agriculture and Forestry

MEMORANDUM

To: Division of Environmental Protection
Office of Waste Management

From: Alan Collins
Assistant Professor

Alan R. Collins

Date: August 5, 1993

Re: Comments on Yard Waste Composting Regulations

I am pleased to see that these regulations have been issued. These regulations are vital to promote composting as an alternative method of solid waste management yet safeguard public health and environmental protection. My specific comments are:

(1) ^{OK} The definition of commercial yard waste composting facilities in 2.2 is ambiguous in two respects. First, are these facilities limited in size to 3,000 tons per month? Does this mean that facilities accepting above 3,000 tons per month are prohibited in West Virginia? If so, this limitation should be made explicit. In addition, does this limitation prevent a facility from taking more than 3,000 tons for any month during the year or is this an annual average limitation? Given the seasonal fluctuations in yard waste generation, this limit interpretation is important and should be made explicit. Second, the intent of the provided that exemption is unclear. Providing an example in the definition would be very helpful, particularly in regards to farm operations.

3 (2) The distinction of non-residential composting activities is a good one. However, this definition should be further restricted to yard waste generated by business activities of the owner/operator and prevent these activities from accepting yard waste which is generated from other sources and transported by licensed garage haulers.

(3) Section 3.8.3 is unclear. Section 3.8.2 requires that non-compostable solid waste be segregated from yard waste assumedly prior to the composting process. Then 3.8.3 seems to require the removal of non-compostables again except during the composting process. No facility can afford to screen composting piles daily for non-compostables. The screening requirement of 3.8.3 should be after the composting process is completed.

(4) The regulations are confusing as to when they apply for commercial facilities which accept a number of sources of organic wastes. For example, 3.1.1.b states that these regulations do not apply when yard wastes are combined with animal manures, yet poultry litter (bedding material plus poultry manure) is an acceptable compostable material according to 3.9.1. Also, 3.8.1 states that addition of other municipal solid waste (MSW) to yard waste is strictly prohibited, yet coffee grounds, kitchen scraps, hair and newspaper (allowed in 3.9.1) can certainly be considered MSW. I would suggest that a distinction be made between mixed and source-segregated MSW in 3.8.1. In addition, perhaps a minimum percentage of yard waste accepted in relation to total organic materials should be designated under 3.1 applicability of regulations or under the definition of commercial yard waste composting facility.

(5) Operator training and certification requirements are a good idea. Now, the DEP needs to follow through and either arrange for training sessions to occur or get information out to municipalities, private haulers, or other interested parties as to where they can receive proper training.

(6) The procedures for monitoring compost quality in 3.6.2.k will be more effective if these regulations designate specific compost use categories based on the compost quality parameters. This section implies that compost which meets an unspecified regulatory standard can be used for any land application, otherwise it must be disposed of in an approved landfill. Compost use categories such as those adopted by the province of British Columbia in Canada would better protect and inform the general public about the end product and its approved uses. I have attached material on metals in compost from a publication by Robert Diener and myself.

APPENDIX C - METALS LIMITS FOR COMPOST

Metals are of particular concern in MSW because they do not degrade. A critical discussion of metal contamination is presented below excerpted from a paper by Richard et. al presented at the International Composting Research Symposium, Columbus, Ohio, May 27-29, 1992:

"Metals do not degrade, but are instead concentrated during the composting process as the organic matter which dilutes them gradually degrades (Le Bozec and Resse, 1987; Claussen, 1990).

The metals of greatest concern are those which tend to bioaccumulate, causing short or long-term toxic effects on organisms in the environment. Those most commonly regulated include cadmium(Cd), chromium(Cr), copper(Cu), mercury(Hg), lead(Pb), nickel(Ni) and zinc(Zn) (Hoffman, 1983). Crawford (1990) provides an overview of the toxicity and environmental fate of these metals.

For most of these potentially toxic metals the levels in MSW composts are low relative to levels considered acceptable in sewage sludge. A table of the proposed No Observed Adverse Effect Level (NOAEL) for these metals is listed in Table 3. These levels were developed by a peer review of the scientific literature and the United States Environmental Protection Agency's (EPA) risk pathway analysis, and indicate levels which appear safe for sludge and sludge compost utilization at very high rates (Page et al., 1989). These numbers have been viewed as a possible basis for regulating MSW composts, although potential differences in solubility and bioavailability between sludge and MSW composts have not yet been explored.

While MSW composts can usually meet these limits for most metals (with the significant exception of lead), there is an increasing interest in achieving even lower levels. Many regulators and policy makers are concerned that the risk assessment methodology used to develop standards like NOAEL are based on incomplete knowledge, and are taking a conservative approach to insure adequate environmental protection (US EPA, 1991). Several European countries and Canadian provinces have proposed or enacted extremely strict standards, which are sometimes based on background levels in the soil (Oosthoek and Smit, 1987; de Hann, 1989; Taylor, 1991; Spencer, 1991)."

TABLE A-1. PROPOSED NOAEL LIMITS FOR SLUDGE AND SLUDGE COMPOSTS
 (Richard et. al, 1992).

ELEMENT	NOAEL SLUDGE (mg/kg)
Cd	18
Cr	1000
Cu	1200
Hg	not listed
Ni	500
Zn	2700
Pb	300

Ontario limits for metals and PCB's in MSW compost as shown in Table 4 are considerably lower than those proposed by the US EPA. They are concerned about the assumptions made in developing US-EPA NOAEL limits for metals as discussed in a paper presented by Otten, 1992:

"Several exposure/toxikinetik model studies done to assess the health risk associated with exposure to sludge and MSW compost have concluded that even the most severe case of compost-to-human ingestion pathway for the "pica" child results in concentrations for Cd, Cr, Cu and Zn well below EPA NOAEL (no-observable-adverse-effect-level) data. Only lead was identified as a possible risk; while no conclusion could be drawn for Hg because no NOAEL level has been established. However, it must be kept in mind that models require assumptions to describe metal uptake and bioaccumulation, application rates, ingestion rate, etc. so that the conclusions are no better than those assumptions and the model itself. In any case, although physical and chemical standards for compost are regulated by governments, the diversity of regulations represents a major concern for the user. It would appear that some of the states are far too lenient in the maximum allowable limits of metals concentrations. Especially when the rationale for setting the limits is not clear. Moreover, Europeans, who have been composting MSW for decades, tend to favor increasingly stricter metal limits".

To meet Canadian standards source separation of organic materials is favored. Rather than using risk assessment for setting standards as proposed in the U.S., Canadian standards are based more on metal concentrations present in rural soils.

TABLE A-2: METALS AND PCB CONCENTRATIONS FOR MSW COMPOST IN ONTARIO, BRITISH COLUMBIA AND MINNESOTA (Otten, 1992).

	CONCENTRATION(mg/kg dry mass)					
	ONTARIO 1991	BRITISH COLUMBIA CODE 1991				MINNESOTA 1989
		#1	#2	#3	#4	
ARSENIC	≤10	≤13	>13-30	>30-50	>50	
CADMIUM	≤3	≤2.6	>2.6-10	>10-20	>20	≤10
CHROMIUM	≤50	≤210	>210-500	>500-800	>800	≤1000
COBALT	≤25	≤26	>26-100	>100-300	>300	
COPPER	≤100	≤100	>100-300	>250-500	>500	≤500
LEAD	≤150	≤150	>150-500	>500-1000	>1000	≤500
MERCURY	≤0.15	≤0.83	>0.83-5	>5-10	>10	≤5
MOLYBDENUM	≤2	≤7	>7-20	>20-40	>40	
NICKEL	≤60	≤50	>50-200	>200-500	>500	≤100
SELENIUM	≤2	≤2.6	≤2.6-6	>6-10	>10	
ZINC	≤500	≤315	>315-800	>800-1500	>1500	≤1000
PCB	≤0.5	--	---	---	---	≤1.0

For example permissible Zinc levels in compost was raised from 220 to 550 ppm because most of their soils are Zinc deficient. British Columbia designates six types of compost based on metal concentrations, feedstock, maturity, foreign matter and water content (Table A-3). British Columbia compost use classification ranges from unrestricted to landfill disposal (Table A-4). Maximum acceptable cumulative limits of heavy metals applied to soils within a forty five year period were established. Ontario compost under

the present guideline has unrestricted use, although they are developing a category for controlled use.

TABLE A-3: SUMMARY OF BRITISH COLUMBIA COMPOST QUALITY CLASSIFICATION (Otten, 1992)

COMPOST TYPE	SS	A	B	C	D	E
Metal Concentration Code	1	1	1 or 1	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		Fresh	N/A
Foreign Matter	≤1%	≤1%	≤2%	≤10%	≤10%	N/A
Water Content	≤50%	≤50%	≤50%	≤50%	N/A	N/A

TABLE A-4: SUMMARY OF BRITISH COLUMBIA COMPOST USE RESTRICTIONS BY CLASSIFICATION (Otten 1992)

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

Bob Delauter
Delauter's Mowing Service
404 High Street, Apt. G
Saint Albans, WV 25177

Office of Waste Management, DEP
Mr. Bill Rheinlander
1356 Hansford Street
Charleston, WV 25301

Dear Sir;

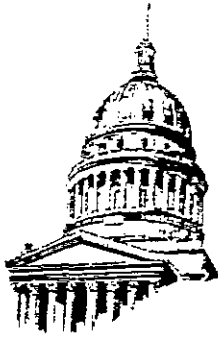
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Thank you for listening (reading) my concerns.

Sincerely:


Bob Delauter



The Senate of West Virginia
Charleston

J. D. BRACKENRICH
P. O. Box 767
LEWISBURG 24901

COMMITTEES:
NATURAL RESOURCES
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EDUCATION
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JOINT COMMITTEE ON
GOVERNMENT OPERATIONS

August 4, 1993

Mr. Max Robertson
Solid Waste Section
Office of Waste Management
1356 Hansford Street
Charleston, WV 25301

Re: Proposed Regulations

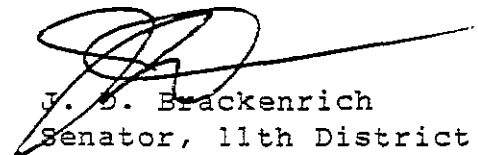
Dear Sir:

We are requesting a copy of the proposed regulations dealing with groundwater protection and the disposal of lead acid batteries and yard wastes.

Please send the copy at your earliest convenience.

Thank you.

Sincerely,


J. D. Brackenrich
Senator, 11th District

JDB/sm

Copies mailed 8/9/93

RECEIVED
Aug 5 3 39 PM '93
WV
WASTE MANAGEMENT