STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER AND WASTE MANAGEMENT

FACT SHEET, INFORMATION, AND RATIONALE
FOR
GENERAL PERMIT FOR LAND APPLICATION
LAND APPLICATION OF SEWAGE SLUDGE AND/OR DOMESTIC SEPTAGE

1. **NAME AND ADDRESS OF APPLICANT:**

Any sewage sludge or domestic septage hauler who holds a valid West Virginia Septic Tank Cleaning Permit issued by a West Virginia County Health Department will be regulated under the terms of this proposed General Permit.

2. **GENERAL PERMIT NO.:** WVSG10000

3. **COUNTY:** Any WV County

4. **PUBLIC COMMENT PERIOD: September 13, 2015 – October 13, 2015**

5. **DESCRIPTION OF APPLICANT'S FACILITY OR ACTIVITY:**

Sewage sludge or domestic septage pumping operation which land applies sewage sludge and/or domestic septage at land application site(s).

6. **GENERAL INFORMATION:**

The Division of Water and Waste Management is re-issuing this General Permit to regulate sewage sludge or domestic septage pumping operation under the authority and mandate of the West Virginia Sewage Sludge Management Rule (Title 33, Series 2). Any owner of a sewage sludge or domestic septage pumping operation who can be regulated under the terms of the proposed General Permit will be eligible to apply for this Permit.

The purpose of this general permit is to continue an efficient, environmentally sound procedure for the land application of sewage sludge and/or domestic septage. This general permit will be successful in streamlining the Division of Water and Waste Management permitting process in issuing coverage to any owner who can demonstrate the ability to achieve compliance.

The Director has the authority to require any owner to apply for and obtain an individual permit. This authority will be exercised when the Director determines that human health and the environment will be better protected by such a permit.

The universe of sewage sludge and septage pumping operation owners which are eligible for regulation under this General Permit numbers approximately 35. Currently permitted facilities wishing to continue discharging under the new general permit will be required to submit a completed site registration application form. Any facility registered during the last six months of the current general permit term will automatically be provided coverage under the new general permit without being required to submit a new site registration application form. To provide for

continued permit coverage during the reissuance process, the existing general permit will be extended for six months. Any new owners who would like to be covered under this General Permit must register by completing a permit application and must pay for a public notice. The owner must comply with Title 33, Series 2, Section 4.1.i. The owner must also comply with the public notice requirements of Title 33, Series 1, Section 3.21 through 3.26.

7. RATIONALE FOR LIMITATIONS AND MONITORING REQUIREMENTS:

A. Limitations - Maximum limitations for heavy metals (Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Molybdenum, Nickel, Selenium, and Zinc) in soils at land application sites are from the Title 33 Series 2, Table 3 of the West Virginia Sewage Sludge Management Rule. The rule also requires monitoring nutrient levels in the soils to ensure over application of nutrients does not occur, but there are no numerical limitations on the nutrient values for Magnesium, Potassium, Phosphorus, Calcium, and Total Nitrogen.

The permit does establish a numerical limit for soil pH. The lower limit of 6.2 is required by the West Virginia Sewage Sludge Management Rule (Title 33, Series 2). The upper limit of 7.5 is established to protect crops from over application of lime used to treat the sewage sludge and/or domestic septage prior to its application of the land.

B. Monitoring Requirements - Monitoring of Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Molybdenum, Nickel, Selenium, Zinc, Magnesium, Potassium, Phosphorus, Calcium, Total Nitrogen, and pH are required by the West Virginia Sewage Sludge Management Rule (Title 33, Series 2). Additional monitoring at the Agency's discretion is allowed in Title 33, Series 2.

The frequency of analysis (annually) is established by the West Virginia Sewage Sludge Management Rule.

8. RATIONALE FOR REPORTING REQUIREMENTS:

A. Written Reports - The permit requires the submittal of a "Soil Monitoring Report". This submittal is required to track compliance with metal limits. The "Septic Hauler Identification and Tracking Report" must also be submitted to DEP. This report is a monthly summary of the quantity and type of waste hauled, and the method of disposal for the waste. It will be used to track compliance with disposal requirements and to determine the volume, types, and disposal methods for wastes handled by each hauler.

The West Virginia Sewage Sludge Management Rule requires a copy of the "Septic Hauler Identification and Tracking Report" to be submitted to the county solid waste authority where the facility or land application site(s) is located. This General Permit also requires that a copy of all reports be sent to the County Health Department which permits the hauler, so that county health department sanitarians will be kept more fully informed on the haulers they are licensing and inspecting.

B. Other Reporting - Any spill or incident that may endanger human health or the environment must be reported immediately on the agency's spill alert line so that proper guidance can be given on remedial measures and other appropriate responses can be made by the Agency. Spills that must be reported to the Agency include any spill to the ground that exceeds 10 gallons or any spill to a surface water collection point. Immediate reporting is also required for any violations of siting restrictions contained in Permit Section H.2. Other instances of noncompliance are required to be reported at the time monthly reports are submitted.

9. RATIONALE FOR DEFINITIONS:

West Virginia Sewage Sludge Management Rule prohibits sewage sludge from being land applied within 50 feet of any "surface water collection point", within 200 feet of an "occupied dwelling", or within 200 feet of a "drinking water supply well". In order to avoid any confusion, an exact definition for these terms is provided in this permit. Note that ditches and wet weather streams are included as "surface water collection points", providing a buffer zone around these structures so that runoff from land application sites does not enter a point where it will be washed to a stream or sinkhole.

The definition of drinking water supply well is designed to protect future users of a well, including livestock; it also guards against groundwater contamination from surface water entry through improperly sealed abandoned wells. Places of business and seasonal dwellings are included in the definition of "occupied dwelling" in order to provide these occupants with the same protection afforded to full-time residences.

A definition for "dead furrow" is provided to give an exact regulatory definition of an agricultural term which most people may be unfamiliar with.

All other definitions are either Federal or State regulatory definitions taken from applicable solid waste, sewage sludge, groundwater protection, and water pollution control regulations.

10. RATIONALE FOR INSPECTION AND ENTRY REQUIREMENTS:

Authorized representatives of the Director of the Division of Water and Waste Management (e.g. inspectors) must be able to have access, at reasonable times, to equipment, storage areas, land application sites and records. This is necessary for inspectors to evaluate permit compliance and assure that the activities are conducted in a manner that is protective of human health and the environment.

11. FEES

A. Land Application Fee - West Virginia Sewage Sludge Management Rules requires a land application fee of five dollars($5.00) per dry ton of sewage sludge land applied. In order to simplify the billing and payment procedure for domestic septage, a fee of seventy-five dollars ($75.00) per 100,000 gallons of liquid septage land applied will be charged. This fee is based on an average dry solids content of 36,000 mg/kg (3.6% solids) in domestic septage which would yield approximately 15 dry tons of solids per 100,000 gallons. This 15 dry tons multiplied by the five dollars ($5.00) per ton fee equates to seventy-five dollars ($75.00) per 100,000 gallons.

12. **RATIONALE FOR OTHER REQUIREMENTS:**

A. Siting Restrictions and Location Standards - These are listed in the Permit Section E.2. Conditions E.2.A through E.2.M are taken from the West Virginia Sewage Sludge Management Rule. Condition E.2.J regarding seasonal high groundwater table, is taken from Chapter 16-1, Series VII. The Health Department regulations require a three (3) feet separation between the surface and groundwater table, as well as any rock, shale or any other impermeable layer. Condition E.2.N., regarding endangered species, is taken from the Federal Sewage Sludge Regulations (40 CFR, Part 503). Permit condition E.2.O., regarding sourcewater protection areas, is required by the Division of Water and Waste Management Groundwater Section; it is included to assure that public water suppliers and customers are not impacted by the land application of sewage sludge or domestic septage.

B. Management Practices for Land Used for Spreading Sewage Sludge - These are listed in the Permit Section E.3. Requirements on crop harvesting, hay cutting, animal grazing, and public access are taken directly from the Federal Sewage Sludge Regulations (40 CFR, Part 503) for sewage sludge land application site(s).

C. Storage - In many cases haulers will temporarily store the sewage sludge or domestic septage so that a larger quantity can be treated and land applied at one time. Underground tanks are often used for storage until final disposal. The tanks must not leak and must be operated in a manner to prevent the release of sewage sludge or domestic septage into the groundwater. Underground storage tanks can meet groundwater protection requirements by backfilling around the tank with a porous material, such as pea gravel or one quarter (1/4) inch limestone. Observation wells shall then be installed and abandoned in accordance with Title 47CSR59 and 60. These wells must be checked monthly with a bailer to see if any liquid is leaking from the tank. Other appropriate leak detection methods may be approved.

All storage structures must also be protected from flooding. Fencing must be installed around any open or unlocked storage facility to prevent entry.

D. Requirement for Soil pH - The West Virginia Sewage Sludge Management Rule requires that the soil pH be maintained at a minimum of 6.2 Standard Units (SUs) during land application and for five(5) years after land application ends. A composite sample of the field is required to be submitted with the permit application and the soil pH must be adjusted to a minimum of 6.2 SUs. Annual composite samples of the field are required to assure that the pH is holding above the minimum requirement. The West Virginia University Extension Service routinely samples fields for pH and nutrients and provides the analysis free of charge. Other State-certified laboratories may be used if faster results are desired.

E. Dead Furrows at Land Application Sites - West Virginia Sewage Sludge Management Rule allows sewage sludge to spread on slopes up to 15 percent. Liquid septage and sewage sludge may still run off from sites under some conditions. Therefore, a berm or breechless ditch (dead furrow) is needed on the lower edge of land application site(s) to prevent runoff from escaping the site(s).

12. **RATIONALE FOR OTHER REQUIREMENTS: (CONTINUED)**

F. Landfill Requirements - Sewage sludge and domestic septage has been used in the past at solid waste landfills for revegetation purposes, even though all land application requirements were not met. Draft Permit Condition E.10 specifies that if sewage sludge or domestic septage is used at a landfill for revegetation, all land application requirements (including pathogen reduction, vector attraction reduction, soil sampling, metals limits, approved loading rates, and siting restrictions) must be met.

G. Land Application of Commercial and Industrial Wastes Prohibited - Domestic septage and sewage sludge haulers have often pumped other wastes and disposed of them in the same manner as the domestic septage and sewage sludge was disposed. Car wash bays and oil-water separators are often pumped by septic haulers. This General Permit is based on the West Virginia Sewage Sludge Management Rule, which excludes commercial and industrial wastes from their regulatory scope. Commercial and industrial wastes are regulated under other statutes and regulations not addressed by this Permit. Disposal and handling of these wastes must be done in accordance with appropriate regulations.

H. Compliance with Bureau for Public Health Regulations and Permits - This permit does not negate or supersede any permits or regulations issued by the Bureau for Public Health. On the contrary, all requirements of the Bureau for Public Health must be met as a condition of this General Permit.

I. Pathogen Reduction and pH Adjustment Requirements - The pH adjustment requirements for sewage sludge from package treatment plants and/or domestic septage are taken directly from the West Virginia Sewage Sludge Management Rule.

J. Record Keeping - "Septage and Sewage Sludge Manifest" forms, or forms with the equivalent information, are required to be kept for each pickup location and disposal site. These forms specify the date, time, quantity, type of waste (septage, grease trap, package plants, etc.), name and address of the pickup location; date, time, location, and method of disposal; and proof of disposal at a sewage treatment plant. This information will be critical in compliance monitoring and enforcement actions.

Portable toilets contain a small volume of waste (less than 20 gallons) and are usually collected on a set route, making it cumbersome to manifest each portable toilet. For this reason, all portable toilets on board each truck are considered one pickup location.

West Virginia Sewage Sludge Management Rule requires that all records be maintained for five (5) years. These manifest forms are to be kept at the permittee's business location.

K. Removal of Other Solid Wastes - Domestic septic tanks and residential package plants, and the sewage sludge pumped from them for land application, are often "polluted" with various non-degradable solid wastes, such as plastics and cans. Wastes such as these are not suitable for land application. Therefore, domestic septage and sewage sludge must be screened or treated in some manner to remove these wastes. Land application sites with excessive amounts of solid wastes will be considered "open dumps".

12. RATIONALE FOR OTHER REQUIREMENTS: (CONTINUED)

L. Groundwater Protection Plan - A groundwater protection plan is a written set of measures to be taken by the facility to prevent the release of contaminates to the groundwater. A groundwater protection plan is required for all persons whose activities have the potential to impact the groundwater. Since the monitoring and storage requirements of this General Permit are adequate to protect groundwater, no additional written plan is required.

The sewage sludge act and Federal 503 regulations upon which the act was patterned requires compliance with conditions and loading rates established to be protective of groundwater. Significant research was conducted at the national level to insure that treatment and application requirements are environmentally appropriate.

The State of West Virginia, Department of Environmental Protection, Division of Water and Waste Management, has made a tentative decision for a State Permit as listed on this Fact Sheet. In order to provide public participation on the proposed issuance of the required permit, the following information is being supplied in accordance with Title 33, Series 1, Section 3.21 through 3.26, of the West Virginia Legislative Rules.

During the public comment period, any interested person may submit written comments on the draft permit. Comments must be made in writing and addressed to:

Director, Division of Water and Waste Management
Department of Environmental Protection
601 57th Street SE
Charleston, WV 25304-2345
ATTENTION: Mylinda Maddox
Phone: (304) 926-0499, Extension 1065
Fax: (304) 926-0496
E-mail: Mylinda.A.Maddox@wv.gov

The written comments shall include the writer's name, address and daytime telephone number and a concise statement of the issue(s) raised. Comments must be received within the comment period.

Any person may submit oral or written statements and data concerning the draft permit during the designated public comment period.

If information received during the public comment period appears to raise substantial new questions, the Director may reopen the public comment period.

All applicable information concerning any permit application and the tentative decisions is on file and may be inspected, by appointment, or copies obtained, at a nominal cost, at the Division of Water and Waste Management, 601 57th Street SE, Charleston, West Virginia 25304, Monday through Friday (except State holidays) between 8:00 a.m. to 4:00 p.m. Contact Mylinda Maddox, telephone (304) 926-0499 ext. 1065, to schedule an appointment or to purchase document copies.

Hearing impaired individuals having access to a Telecommunication Device for the Deaf (TTY) may contact our agency by calling (304) 926-0489. Calls must be made between 7:30 a.m. to 3:30 p.m. Monday through Friday.