

# BUREAU OF WASTE MANAGEMENT

## DIVISION OF MUNICIPAL and RESIDUAL WASTE

### **GENERAL PERMIT WMGM065**

### PROCESSING, BY DRYING AND GASIFICATION, AND BENEFICIAL USE OF BIOSOLIDS AS A FUEL PRODUCT

Issued: March 8, 2021

Expires: March 8, 2031

#### A. Description:

This general permit authorizes the storage and processing of municipal wastewater sewage sludge (biosolids) from municipal wastewater treatment plants for beneficial use as a fuel at power plants and cement kilns. Processing is limited to drying and gasification.

#### **B.** Determination of Applicability Requirements:

A person or municipality that proposes to operate under the terms and conditions of this general permit after the date of permit issuance must obtain a "Determination of Applicability" ("DOA") from the appropriate Department of Environmental Protection (DEP) Regional Office (see attached list) prior to commencing authorized activities under this general permit. A completed application on forms provided by DEP along with the application fee for a DOA must be submitted to the appropriate DEP Regional Office. Checks shall be made payable to the "Commonwealth of Pennsylvania". No activities shall commence unless approved, in writing, by DEP.

#### C. Operating Conditions:

- 1. The facility may not process more than 300 wet tons of waste material per day.
- 2. The maximum volume of unprocessed waste, waste engaged in processing, and produced fuel cannot exceed 400 tons at the facility at any one time.
- Processed biosolids must comply with requirements to significantly reduce pathogens or requirements to further reduce pathogens set forth in 25 Pa. Code, Chapter 271, Subchapter J, Appendix A, unless the Department approves another method based upon demonstration that the method will control pathogens, vectors and odors.
- 4. The fuel product may be beneficially used if it has an as-fired thermal heat value of 5,000 BTU/lb. The 5,000 BTU/lb. threshold applies to the thermal heat value of the fuel product prior to blending with other fuels, such as coal.
- 5. Testing shall be performed on the fuel product to ensure the BTU value of the fuel produce is met. Weekly grab samples shall be composited into a monthly sample and sent to a laboratory for analysis. The Department may reduce the frequency of testing required in this condition after the fuel product has been monitored for 1 year and upon written request from the permittee.
- 6. The permittee must provide documentation that the fuel product contains contaminants at concentrations less than or equal to concentrations of the same contaminants in the traditional fuels which the combustion unit is designed to burn. A direct comparison of the contaminant levels in the fuel product to the traditional fuel must be performed to make this demonstration.

- 7. The facility shall not be located:
  - a. In the 100-year floodplain of waters of this Commonwealth, unless the Department approves in the permit a method of protecting the facility from a 100-year flood consistent with the Flood Plain Management Act (32 P.S. §§679.101 - 679.601) and the Dam Safety and Encroachment Act (32 P.S. §§693.1 – 693.270;
  - b. In or within 300 feet of an exceptional value wetland;
  - c. In or within 100 feet of a wetland other than an exceptional value wetland;
  - d. Within 100 feet of a sinkhole or area draining into a sinkhole;
  - e. Within 900 feet measured horizontally from an occupied dwelling unless the owner of the dwelling has provided a written waiver consenting to the facility being closer than 900 feet;
  - f. Within 50 feet of a property line unless the owner has provided a written waiver consenting to the facility being closer than 50 feet;
  - g. Within 100 feet of a perennial stream;
  - h. Within 300 feet of a water source unless the owner has provided a written waiver consenting to the facility being closer than 300 feet;
  - i. Within 3.3 feet of the regional groundwater table;
  - j. Within 900 feet of the following, if existing prior to the date the Department received an administratively complete application, unless a written waiver is obtained from the current property owner of:
    - i. A building owned by a school district or parochial school and used for instructional purposes;
    - ii. A park;
    - iii. A playground.
  - k. In an area where the facility would adversely affect a habitat of a known endangered or threatened species
- 8. Upon cessation of permitted operations at the facility, the permittee shall ensure removal of all wastes and provide for the processing, recycling, beneficial use, or disposal of wastes in accordance with the SWMA, the environmental protection acts and the regulations promulgated thereunder.
- 9. The activities authorized by this permit shall not cause or allow conditions that are harmful to the environment, public health or safety, including but not limited

#### DRYING AND GASIFICATION OF BIOSOLIDS

to, odors, noise, or other public nuisances. The permittee shall not cause or allow the attraction, harborage, or breeding of vectors. Storage of the produced fuel shall be covered to prevent dispersal by wind or water erosion and in a manner that prevents fire or explosion. The produced fuel may not be stored in a manner that causes ground or surface water contamination.

- 10. The local police, fire department, or other appropriate state or local emergency response agencies shall be contacted immediately in the event of a fire, spill, or other hazard arising from the storage of fuel that threatens public health, safety, and welfare, or the environment, and whenever necessary in the event of personal injury related to such storage.
- 11. The permittee shall develop and implement a Preparedness, Prevention and Contingency (PPC) Plan that is consistent with the Department's most recent guidelines.
- 12. The operator of the facility must develop and maintain a plan for the alternative management of materials during periods when the facility is not producing a fuel product. If the facility is out-of-service for a longer period of time than the storage capacity of the site will allow, the solid waste shall be removed from the site.
- 13. The permittee must implement and maintain a plan and procedure for identifying and rejecting unacceptable loads at the processing facility.
- 14. Wastes, other than the wastes specified in the description of this general permit, may not be received, mixed, processed, stored, or beneficially used with the wastes intended for beneficial use.
- 15. This permit does not authorize the acceptance of hazardous waste, as the term is defined in 25 Pa. Code, § 261a.1.
- 16. All activities conducted under the authorization granted in this permit shall be conducted in accordance with the permittee's application. Except to the extent the permit states otherwise, the permittee shall utilize materials as described in the permit application.
- 17. The permittee shall comply with the fugitive emissions regulations under 25 Pa. Code, Chapter 123 (relating to standards for contaminants) issued under the Air Pollution Control Act, the Act of January 8, 1960, P.L. 2119, 35 P.S. §4005, and shall comply with all the applicable provisions of 25 Pa. Code §§123.1 and 123.2 (relating to prohibition of certain fugitive emissions and fugitive particulate matter).
- 18. Nothing in this permit shall be construed to supersede, amend, or authorize a violation of any of the provisions of any valid and applicable local law, ordinance, or regulation, providing that said local law, ordinance, or regulation is not preempted by the Solid Waste Management Act (SWMA), 35 P.S. §§ 6018.101—

6018.1001; and the Municipal Waste Planning, Recycling and Waste Reduction Act of 1988, 53 P.S. §§4000.101, et seq.

- 19. As a condition of this general permit and of the permittee's authority to conduct the activities authorized by this general permit, the permittee hereby authorizes and consents to allow authorized employees or agents of the Department, without advance notice or search warrant, upon presentation of appropriate credentials and without delay, to have access to and inspect all areas on which solid waste management activities are being, will be, or have been conducted. This authorization and consent shall include consent to collect samples of waste, soils, water, or gases; take photographs; perform measurements, surveys, and other tests; inspect any monitoring equipment; inspect the methods of operation and inspect and/or copy documents, books, and papers required by the Department to be maintained. This permit condition is referenced in accordance with Sections 6018.608 and 6018.610(7) of the SWMA, 35 P.S. §§ 6018.608 and 6018.610(7). This condition in no way limits any other powers granted under the SWMA.
- 20. Any independent contractors or agents retained by the permittee in the completion of activities authorized under this general permit shall be subject to compliance history review by the Department prior to performance of any activities, as specified by the SWMA.
- 21. Failure of measures herein approved to perform as intended, or as designed, or in compliance with the applicable laws, rules, and regulations and terms and conditions of this permit, for any reason, shall be grounds for the revocation or suspension of the permittee's approval to operate under this permit.
- 22. The activities authorized by this general permit shall not harm or present a threat of harm to the health, safety, or welfare of the people or environment of this Commonwealth. The Department may modify, suspend, revoke, and reissue the authorization granted in this general permit if it deems necessary to prevent harm or the threat of harm to the public health, and the environment or if they cannot be adequately regulated under the conditions of this general permit.
- 23. The permittee shall comply with the terms and conditions of this general permit and with the environmental protection acts to the same extent as if the activities were covered by an individual permit. The Department may require an individual permit be obtained if the permittee cannot comply with the conditions of this general permit or is conducting an activity that harms or presents a threat of harm to the health, safety, or welfare of the public or the environment of this Commonwealth.
- 24. This permit does not authorize and shall not be construed as an approval to discharge any waste, wastewater, or runoff from the site of processing to the land or waters of the Commonwealth.

- 25. Best Management Practices shall be implemented to divert storm water run-on from the storage area. Storm water runoff shall be managed in accordance with The Clean Streams Law and regulations promulgated thereunder. Prior to beginning operations at the facility, the operator must obtain all necessary storm water management permits.
- 26. The permittee shall maintain in force and affect a general liability insurance policy in accordance with 25 Pa. Code, Chapter 271, Subchapter D (relating to financial assurances requirements) to provide continuous coverage during operation of the facility and until the Department issues a final closure certification.
- 27. The permittee shall maintain a bond in an amount and with sufficient guarantees as provided by 25 Pa. Code, Chapter 271, Subchapter D (relating to Financial Assurances Requirements).
- 28. Equipment used for the storage of biosolids and produced fuel shall be maintained in good operating condition. Daily inspections of each storage area and surrounding environs shall be conducted to determine compliance of the terms and conditions of this general permit and for evidence of failure.
- 29. The waste receiving and processing areas must be located within an enclosed structure(s).
- 30. The produced fuel must be stored within an enclosed unit.
- 31. Storage of biosolids and produced fuel by the permittee shall be in a manner that complies with the requirements set forth in 25 Pa. Code, Chapter 285 (relating to storage, collection and transportation of municipal waste).
- 32. Leachate generated and stored at the facility shall be stored in a tank or container designed in accordance with 25 Pa. Code, Chapter 285 (relating to storage and transportation of municipal waste) prior to being reused on-site, discharged to a Publicly Owned Treatment Works (POTW) or transported off-site for treatment and/or disposal. Leachate reuse on-site is limited to being used as part of the fuel manufacturing process.
- 33. The biosolids and produced fuel shall not be mixed with other types of solid wastes, including hazardous waste, municipal waste, special handling waste, or other residual waste, as the terms are defined in 25 Pa. Code § 271.1.
- 34. Analytical testing required by this general permit shall be performed by a laboratory accredited under the Pennsylvania Environmental Laboratory Accreditation Act, Act of 2002, 27 Pa. C.S.A. §§ 4101-4113.

#### D. Recordkeeping:

- The permittee shall maintain records of all analytical evaluations conducted in accordance with this permit, and records shall be made available to the Department upon request. Required records shall be retained for a minimum of 5 years. Records of analytical evaluations must include, at a minimum, the following for each sample: the dates of sampling and testing, sampling procedures utilized, name of the individual who collected the sample, the volume or weight of the sample, each parameter tested, the analytical results, the name of the analytical laboratory used, and the analytical methodologies employed.
- 2. The permittee shall maintain records of all waste accepted by the facility, and records shall be made available to the Department upon request. Required records shall be retained for a minimum of 5 years. Records of each source of incoming waste must include, at a minimum, the following: the name, address, and phone number of each source of incoming waste; the date of receipt; the quantity of waste received; the results of visual observations; and the name, address, and phone number of the destination of each outgoing shipment of waste. The permittee shall also maintain records of spills or releases that include, at a minimum, the following: the location, date, time, identification, and quantity of spilled or released material, and a description of how the material was cleaned up. The permittee shall also maintain records of all reports submitted to the Department or to the U.S. Environmental Protection Agency.
- 3. The permittee shall maintain records of the quantity of each outgoing shipment of produced fuel for beneficial use, and the name, address and phone number for each destination, and records shall be made available to the Department upon request. Required records shall be retained for a minimum of 5 years.
- 4. The permittee shall maintain training records that contain the following: employees who received training, date training occurred, and instructor. Records shall be retained by the permittee at the permittee's place of business for a minimum of 5 years from the date the records were generated and available for review at the Department's request.

#### E. Reporting Requirements:

 All new sources of biosolids must be processed and beneficially used in accordance with terms and conditions of this general permit, the permittee's application, and in compliance with the environmental protection acts. If new sources of biosolids are to be received by the permittee for processing and beneficial use, the permittee shall submit the following information to the appropriate Department Regional Office for review and approval prior to acceptance by the permittee:

- Certification that the biosolids are not a hazardous waste, or, in lieu of certification, analytical results to demonstrate the biosolids are not a hazardous waste as defined by 40 CFR Part §261;
- The name, address, and location of the biosolids generator, as well as the volume of biosolids that the permittee anticipates receiving from the generator;
- c. One-year of analytical data on a representative sample(s) of the biosolid material, collected and managed in accordance with EPA's Hazardous Waste Test Methods in Publication No. SW-846, that is analyzed by a laboratory accredited under the Pennsylvania Environmental Laboratory Accreditation Act, Act of 2002, 27 Pa. C.S.A. §§ 4101-4113;
- d. Documentation that the new source of biosolids complies with the conditions of the general permit, the permittee's application, and can be received by the permittee for processing prior to beneficial use.

Permittees may commence with receipt of the new source after fifteen (15) business days from the date the Department receives the written request unless otherwise notified by the Department. During the determination of accepting biosolids from a new source, the permittee shall consider the processing and beneficial use of the new source of biosolids in accordance with all permit conditions in this general permit. If it is determined after the fifteen (15) business day period that the new source material was not consistent with the conditions of this general permit, the permittee shall be subject to any and all applicable enforcement actions of the Solid Waste Management Act or the Department's rules and regulations promulgated thereunder. The absence of an action by the Department during or after the fifteen-business day timeframe does not constitute an approval or final action of the Department. New source submittals found to be deficient during Department review must be addressed to the satisfaction of the Department prior to acceptance by the permittee.

- 2. The permittee is not authorized to accept biosolids for new sources if the generator is unable to provide the required information in Condition E.1.
- 3. Any person that operates under the provisions of this permit shall immediately notify the Department via certified mail of any changes in: the company name, address, owners, operators, and/or responsible officials of the company, compliance status, the generator of the solid waste the physical and chemical characteristics of the fuel product and the status of any permit issued by the Department or federal government under the environmental protection acts.

- 4. Persons operating under the provision of this general permit shall submit to the appropriate Department Regional Office (see attached list), an annual report on the beneficial use activities conducted under this permit by March 1 for the preceding calendar year. This report shall include the records required to be maintained in accordance with Conditions D.2. and D.3., and, if applicable, updated bonding calculations in accordance with 25 Pa. Code, Chapter 271, Subchapter D.
- 5. The permittee shall immediately notify the Department's Emergency Hotline by telephone at 800-541-2050 and the appropriate DEP regional staff in the event of a discharge or spill of waste or manufactured fuel and shall take appropriate action to protect the health and safety of the public and the environment.

#### F. Renewal:

A generator or supplier that plans to continue the operations authorized under this general permit, after the expiration date indicated on the approval for coverage page, shall file a complete application for permit renewal at least 180 days before the expiration date of this general permit unless permission has been granted by the Department for submission at a later date. The renewal applications shall be submitted to the appropriate DEP Regional Office (see attached list) and include, at a minimum, the following:

- 1. General Information Form (Authorization Application for a Residual or Municipal Waste General Permit Application),
- 2. Form B (Professional Certification),
- 3. Form 20 (Application for a Municipal or Residual Waste General Permit),
- 4. Form 27R (Acceptance of General Permit Conditions), and
- 5. Renewal application fee in the amount identified in Section A (General Information) of the Form 20. A check shall be made payable to the "Commonwealth of Pennsylvania."

A copy of the renewal application shall also be sent to the Department's Bureau of Waste Management, Division of Municipal and Residual Waste, Rachel Carson State Office Building, 400 Market Street, P.O. Box 69170, Harrisburg, PA 17106-9170.

In the event that a timely and complete application for renewal has been submitted and the Department is unable, through no fault of the permittee, to reissue the general permit or approval for coverage before its current coverage expiration date, the terms and conditions of the approved coverage will automatically continue and will remain fully effective and enforceable pending the issuance or denial of the renewal for permit coverage, provided the permittee is, and has been, operating in compliance with the terms and conditions of the general permit.

#### Department of Environmental Protection Regional Offices (and Counties Served)

I. Bucks, Chester, Delaware, Montgomery, Philadelphia.

#### Southeast Regional Office

2 East Main Street Norristown, PA 19401 Phone: (484) 250 - 5960

II. Carbon, Lackawanna, Lehigh, Luzerne, Monroe, Northampton, Pike, Schuylkill, Susquehanna, Wayne, Wyoming.

#### **Northeast Regional Office**

2 Public Square Wilkes-Barre, PA 18711-0790 Phone: (570) 826 – 2516

III. Adams, Bedford, Berks, Blair, Cumberland, Dauphin, Franklin, Fulton, Huntingdon, Juniata, Lancaster, Lebanon, Mifflin, Perry, York.

### Southcentral Regional Office

909 Elmerton Avenue Harrisburg, PA 17110-8200 Phone: (717) 705 – 4706

IV. Bradford, Cameron, Centre, Clearfield, Clinton, Columbia, Lycoming, Montour, Northumberland, Potter, Snyder, Sullivan, Tioga, Union.

#### **Northcentral Regional Office**

208 West 3<sup>rd</sup> Street - Suite 101 Williamsport, PA 17701 Phone: (570) 327 – 3653

V. Allegheny, Beaver, Cambria, Fayette, Greene, Somerset, Washington, Westmoreland.

**Southwest Regional Office** 

400 Waterfront Drive Pittsburgh, PA 15222-4745 Phone: (412) 442 – 4000

VI. Armstrong, Butler, Clarion, Crawford, Elk, Erie, Forest, Indiana, Jefferson, Lawrence, McKean, Mercer, Venango, Warren.

#### **Northwest Regional Office**

230 Chestnut Street Meadville, PA 16335-3481 Phone: 814-332-6848