GENERAL PERMIT WMGR097

RESEARCH & DEVELOPMENT OF THE BENEFICIAL USES OF RESIDUAL AND MUNICIPAL WASTES

DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WASTE MANAGEMENT DIVISION OF MUNICIPAL AND RESIDUAL WASTE

Effective March 1, 2014

A. Description.

- 1. This general permit authorizes research and development (R&D) activities to demonstrate the processing and beneficial use of residual and/or municipal waste.
- 2. The results from a successful R&D project may be used to support an application for a general permit to authorize the beneficial use of residual or municipal waste.

B. Registration Requirements.

 General. A person or municipality that proposes to operate under the terms and conditions of this general permit must register with the Department's Bureau of Waste Management, Division of Municipal and Residual Waste, P.O. Box 69170, Harrisburg, PA 17106-9170, at least 30 days prior to commencing any R&D project under this permit. No activities shall commence unless and until approved, in writing, by the Department.

At a minimum, two (2) copies of the following information must be provided to register (one to the address above and one to the Department's Regional Office in the region where the R&D project will take place):

- (i) General Information Form (Authorization Application for a Residual or Municipal Waste General Permit Application).
- (ii) Form 20 (Application for a Municipal or Residual Waste General Permit).
 - In addition to the requirements of Section E, Item 10, of Form 20, applicants must also supply proof that notification of this application submittal has been provided to the county planning agency and county health department, when said offices exist in the county in which the facility will be located.
- (iii) Form 27R (Acceptance of General Permit Conditions).
- (iv) Form R1 (Waste Analysis and Classification Plan for Processing Facilities and Beneficial Use).
- (v) Form D (Residual Exclusionary Area Criteria/Environmental Assessment Process for Residual Waste Management Facilities) for projects proposing a duration of greater than one (1) year or projects proposing greater than 50 tons of waste on-site. Form D is not required for permit renewals.
- (vi) Bonding Worksheets, if applicable. The Department may require bonding for projects including but not limited to those involving quantities of waste

exceeding 50 tons or multiple projects by the same permittee.

- (vii) Water Quality Monitoring Plan, if applicable.
- 2. **Project Narrative.** In addition to the items required by paragraph B.1, the registration must include two (2) copies of the following (one to the address in paragraph B.1 and one to the Department's Regional Office in the region where the R&D project will take place):
 - (i) The information required in paragraphs B.3 B.4, below.
 - (ii) The goals of the R&D project.
 - (iii) A description of any long-term monitoring planned as part of the R&D project.
 - (iv) The planned duration of the R&D project.
 - (v) An operational plan for the R&D project.
 - (vi) A plan for demonstrating and documenting the success of the R&D project. The plan must address, at a minimum, the following:
 - a. The consistency of the chemical, physical and engineering properties of the waste material.
 - b. The suitability of the waste material for the specific proposed beneficial use.
 - c. That no adverse public health, safety or environmental impacts will result from the R&D project.
 - (vii) A plan for corrective action in the event the project is unsuccessful, causes harm or presents a threat of harm to the health, safety or welfare of the people or the environment.
 - (viii) A description of the ultimate disposition of the wastes under the R&D project, including disposal options if the project is unsuccessful.
 - (ix) Copies of any other approvals or permits that may be required for the project.
 - (x) Any other information the permittee deems applicable.
 - (xi) Proof that any independent contractors retained by the permittee to perform any activities authorized under this permit are in compliance with the Department regulations, as required in paragraph C.19 of this general permit.

- (xii) An application fee in the amount identified in Section A (General Information) of Form 20 payable to the "Commonwealth of Pennsylvania."
- (xiii) Additional information requested by the Department necessary to make a permit decision.
- 3. For projects with a proposed duration greater than 1 year. Persons must submit to the Department for review and approval two (2) copies (one to the address in paragraph B.1 and one to the Department's Regional Office in the region where the R&D project will take place) of a written narrative that justifies the longer duration and divides the project into phases.
 - (i) The justification for a project duration greater than one (1) year may include the following:
 - a. The scale of the project.
 - b. The scope of the project.
 - c. Demonstration of non-bench scale application.
 - d. Long-term strength and durability of the project.
 - e. Long-term physical stability of the project materials.
 - f. Long-term chemical stability of the project materials.
 - (ii) The narrative dividing the project into phases must, at a minimum, include the following:
 - a. Explanation of the purpose of each phase.
 - b. Identification of the types and volumes of materials expected to be beneficially used in each phase.
 - c. Description of the results anticipated for each phase, including:
 - (1) The progress towards the project goals.
 - (2) The effectiveness and environmental effects anticipated to be realized at the conclusion of each phase.

Persons required to divide the project into phases must develop a phase report form that will provide, at a minimum, all the information in paragraph 3(ii). The form must be submitted to the Department as part of the general permit application for review and approval by the Department.

4. For projects proposing greater than 50 tons of waste on-site. Persons requesting to use more than 50 tons of waste on-site at any one time must submit two (2) copies of a written narrative justifying the greater volume to the Department (one to the address in paragraph B.1 and one to the Department's Regional Office in the region where the R&D project will take place) for review and approval. For projects involving greater than 50 tons of waste, the Department may require bonding or water quality monitoring.

The justification for requests to exceed 50 tons of waste on-site may include the following:

- (i) The scale of the project.
- (ii) The scope of the project.
- (iii) Demonstration of non-bench scale application.
- (iv) Long-term strength and durability of the project.
- (v) Long-term physical stability of the project materials.
- (vi) Long-term chemical stability of the project materials.

C. Operating Conditions.

- 1. No waste that has not been previously approved under this general permit shall be brought on-site unless and until approved, in writing, by the Department.
- 2. No activity that has not been previously approved under this general permit shall commence unless and until approved, in writing, by the Department.
- 3. Wastes, including processed wastes, shall not be placed directly into the environment if any constituent (1) does not meet the requirements of 25 Pa. Code § 288.623(a) (relating to minimum requirements for acceptable waste), or (2) poses a threat of harm to human health or the environment.
- 4. Wastes covered under this permit as part of the R&D project shall not be hazardous waste or mixed with hazardous waste.
- 5. Wastes covered under this permit as part of the R&D project shall be kept separate from other wastes generated, processed, stored, or beneficially used at the site.
- 6. Wastes covered under this permit as part of the R&D project shall not be mixed with other types of solid wastes, including municipal waste, special handling waste, or other residual waste, that were not specifically identified in the permittee's approved application and information supplied under Section B of this general permit.
- 7. 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.

- 8. The permittee shall not cause or allow a point or non-point source discharge of any of the following to the surface waters of the Commonwealth, unless permitted by the Department: residual wastes; liquid waste; combined stormwater runoff and leachate, if generated; or runoff from the staging, processing and storage areas where solid waste management activities are conducted.
- 9. Best Management Practices (BMPs) shall be implemented to divert stormwater runon away from the facility. Prior to commencing operations at the facility, the permittee must comply with regulations and obtain all the necessary erosion and sediment control and stormwater management permits. Any leachate and runoff produced from the storage of waste shall be managed in accordance with the Clean Streams Law, 35 P.S. §§ 691.1 – 691.1001, and regulations promulgated thereunder.
- 10. Storage of waste by the permittee shall be in a manner that complies with 25 Pa. Code Chapter 285 (relating to the storage, collection and transportation of municipal waste) or Chapter 299 (relating to the storage and transportation of residual waste), whichever is applicable.
- 11. The permittee shall comply with the applicable provisions of 25 Pa. Code, Chapter 123 (Standards for Contaminants) issued under the Air Pollution Control Act, 35 P.S. §§ 4001 4015, and shall comply with all applicable provisions of the Fugitive Emissions Standards adopted at 25 Pa. Code §§ 123.1, 123.2, and 123.31.
- 12. Daily inspections of equipment during any waste processing activities shall be conducted to ensure that equipment will operate properly and to examine for evidence of equipment failure. During periods of extended equipment failure or shutdown, waste may be stored for no more than 90 days from the time the equipment failure or shutdown occurred.
- 13. At a minimum, weekly inspections of all processing and storage areas are to be conducted to determine compliance with the terms and conditions of this general permit and for evidence of failure.
- 14. The processing, storage and transportation of wastes shall be conducted in a manner that will not create a nuisance or be harmful to the public health, safety or the environment of this Commonwealth.
- 15. The permittee shall maintain at the permitted facility an updated copy of a plan for handling spills or emergencies at the site, or a Preparedness, Prevention and Contingency Plan (PPC plan) for the facility prepared in accordance with the most recent edition of the Department's "Guidelines for the Development and Implementation of Environmental Emergency Response Plans." The plan shall be updated at least every five (5) years or more frequently if necessary, including but not limited to when changes in phone numbers, equipment or regulatory requirements occur. The permittee shall immediately implement the applicable

provisions of the Department-approved PPC plan for any emergency that affects or threatens public health, safety, welfare, or the environment.

- 16. If required by the Department, a copy of the Department-approved Radiation Protection Action Plan (RPAP) for the facility must be maintained by the permittee at the facility at all times. The RPAP must address the management of wastes that contain technologically enhanced naturally occurring radioactive material (TENORM) and be implemented during all phases of operations at the facility.
- 17. Any chemical analyses required in this permit shall be performed by a laboratory that is in compliance with the Pennsylvania Environmental Laboratory Accreditation Act, 27 Pa C.S.A. §§ 4101-4113, and the rules and regulations promulgated thereunder.
- 18. The analytical methodologies used to meet the requirements in this general permit shall be those in the most recent edition of the EPA's "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (EPA SW-846); "Methods for Chemical Analysis of Water and Wastes" (EPA 600/4-79-020); "Standard Methods for the Examination of Water and Wastewater" (prepared and published jointly by the American Public Health Association, American Water Works Association, and Water Environment Federation); the Department's "Sampling Manual for Pollutant Limits, Pathogens and Vector Attraction Reductions in Sewage Sludge;" or a comparable method subsequently approved by the EPA or the Department.
- 19. Any independent contractors or agents retained by the permittee in the completion of activities authorized under this permit shall be subject to prior compliance history review by the Department, as specified by the Solid Waste Management Act, 35 P.S. §§ 6018.101 6018.1003 (SWMA) and the regulations promulgated thereunder.
- 20. A financial bond, which guarantees the proper management of the waste and proper closure of the facility, in accordance with 25 Pa. Code § 283.272 and § 297.272, may be required for facilities storing greater than 50 tons of waste onsite. The amount of the bond shall be based upon the total estimated cost (i.e., off-site disposal, transportation cost, decontamination cost) to the Commonwealth for facility closure and proper management of the wastes. The Department may require additional bonding for any other necessary measures to prevent adverse impacts upon public health, safety, welfare, and the environment.
- 21. All activities conducted under the authorization granted in this permit shall be conducted in accordance with the permittee's application and information supplied under Section B of this general permit, except to the extent that there is a conflict with the regulations or governing statutes, or if the permit states otherwise.

- 22. Any waste generated from the processing activity authorized by this general permit or processed waste that is not beneficially used shall be managed in accordance with the SWMA and the regulations promulgated thereunder.
- 23. Nothing in this general permit shall be construed to supersede, amend or authorize a violation of any of the provisions of any valid and applicable law, ordinance or regulations, providing that said local law, ordinance or regulation is not preempted by the SWMA, 35 P.S. §§ 6018.101 6018.1003; Municipal Waste Planning, Recycling and Waste Reduction Act, 53 P.S. §§ 4000.101 4000.1904; Air Pollution Control Act, 35 P.S. §§ 4001 4015; Waste Transportation Safety Act, 27 Pa. C.S. §§ 6201 6209; Oil and Gas Act, §§ 58 P.S. 601.101 601.605; Radiation Protection Act, 35 P.S. §§ 7110.101 7110.703; and the Clean Streams Law, 35 PS. §§ 691.1 691.1001.
- 24. As a condition of this permit and of the permittee's authority to conduct the activities authorized by this permit, the permittee hereby 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 and to inspect all areas or permittee-controlled adjacent areas where solid waste management activities are being or will be conducted. This authorization and consent shall include consent to collect samples of waste, water, soils, or gases; to take photographs; to perform measurements, surveys and other tests; to inspect any monitoring equipment; to inspect the methods of operation; to interview personnel; and to inspect and/or copy documents, books and papers required by the Department to be maintained or produced (Sections 608 and 610(7) of the SWMA, 35 P.S., §§ 6018.608 and 6018.610(7)). This condition in no way limits any other powers granted to the Department under the SWMA.
- 25. Failure of the project 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.
- 26. 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:
 - a. Modify, suspend, revoke, or reissue the authorization granted in this general permit if the permittee cannot comply with the conditions of this general permit, or if the authorized processing and beneficial use activities cannot be adequately regulated under the conditions of this general permit.
 - b. Require a person or municipality authorized by a general permit to apply for and obtain an individual permit when the person or municipality is not in compliance with the conditions of the general permit or is conducting an activity that harms

or presents a threat of harm to the health, safety or welfare of the people or the environment of this Commonwealth.

- 27. 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 if the permittee is not in compliance 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 people or the environment.
- 28. Upon cessation of operations at the facility, the permittee shall comply with any applicable closure requirements in 25 Pa. Code § 283.272 and § 297.272, and shall clean and/or remove any residual waste, storage tanks and structures or other materials that contain or have been contaminated with residual waste and shall provide for the processing and disposal of the waste or material in accordance with the SWMA, 35 P.S. §§ 6018.101 6018.1003, other environmental protection acts and the regulations promulgated thereunder.
- 29. R&D projects authorized under this general permit shall not be located:
 - a. In the 100-year floodplain of waters of this Commonwealth, unless the Department approves in the permit a method for 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. §§ 693.1 693.27).
 - 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, unless storage and processing will not occur within that distance or the storage and processing take place in an enclosed facility and one of the following applies:
 - i. The operation is in or along the wetland, and the operator has received a permit from the Department under Chapter 105 (relating to dam safety and waterway management).
 - ii. The operation is not in or along the wetland, and no adverse hydrologic or water quality impacts will result.
 - d. Within 300 feet measured horizontally from an occupied dwelling unless one of the following conditions is satisfied:
 - i. The owner of the dwelling has provided a written waiver consenting to the facility being closer than 300 feet. The waiver shall be knowingly made and separate from a lease or deed,

unless the lease or deed contains an explicit waiver from the owner.

- ii. The operations take place in an enclosed facility; the applicant demonstrates that the location and operation of the facility do not conflict with local land use or local zoning; and the applicant has provided written notice to owners of all occupied dwellings within 300 feet measured horizontally from the facility.
- e. Within 50 feet of a property line unless the owner demonstrates one of the following:
 - i. That actual processing of waste is not occurring within 50 feet of a property line.
 - ii. That storage and processing take place in an enclosed facility.
 - iii. That the owner of the adjacent property has provided a written waiver consenting to the facility being closer than 50 feet. The waiver shall be knowingly made and separate from a lease or deed, unless the lease or deed contains an explicit waiver from the owner.
- f. Within 100 feet of a perennial stream unless one of the following applies:
 - The storage and processing take place in an enclosed facility and no adverse hydrologic or water quality impacts will result.
 - Storage and processing that is not enclosed will not occur within that distance and no adverse hydrologic or water quality impacts will result.
- g. Within 150 feet of high quality or exceptional value waters, as defined in 25 Pa. Code § 93.1.
- 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 300 yards of the following:
 - i. A building owned by a school district or parochial school and used for instructional purposes.
 - ii. A park.
 - iii. A playground.

j. In an area where the facility would adversely affect a habitat of a known endangered or threatened species.

D. Recordkeeping.

- 1. Records of any analytical evaluations conducted on waste pursuant to the residual waste regulations and this permit shall be kept by the permittee at the permittee's place of business and shall be available to the Department for inspection. At a minimum, these records shall include the dates of testing; each parameter tested; the results of testing; the name, address and telephone number of the laboratory that conducted the testing; the sampling procedures used; the analytical methodologies employed; and the name of the person collecting the sample. Analytical records shall be retained by the permittee at the permittee's place of business for a minimum of five (5) years after the analyses were performed.
- 2. All records required in this general permit shall be maintained on-site for a minimum of five (5) years and shall be made available to the Department upon request. Should a facility no longer be located at the site where the processing occurred, the records shall be maintained by the permittee for a minimum of five (5) years and shall be made available to the Department upon request.

E. Reporting Requirements.

- 1. Any person who operates under the provisions of this general permit shall immediately notify the Department, in writing, within 15 days, of any changes in: the name, address, owners, permittees, and/or responsible officials of the company; the location of processing facilities; compliance status; land ownership and the right to enter and operate sites operated by the permittee; the bonding status of the facilities authorized by this permit; change in the chemical or physical characteristics of the waste(s); and the status of any permit issued by the Department or federal government under the environmental protection acts. Said notification shall be made by sending two (2) copies to the Department (one to the address in paragraph B.1 and one to the Department's Regional Office in the region where the R&D project takes place).
- Any person currently operating under the provisions of this general permit must notify the Department, in writing, if the existing processing facility will be relocated to a new location, or if an additional processing facility, owned and/or operated by the permittee, will be added for coverage under this general permit.
 - a. Notification must be provided at least 30 days prior to a permittee operating at a new or additional location. Two (2) copies of the notification shall be sent to the Department (one to the address in paragraph B.1 and one to

the Department's Regional Office in the region where the R&D project will take place).

- b. In addition to the notice, two (2) copies of all items included under paragraph B.1 for the new location must be submitted for the Department's approval (one to the address in paragraph B.1 and one to the Department's Regional Office in the region where the R&D project will take place).
- 3. In the event of a spill of waste, the permittee shall take appropriate immediate action to protect the health and safety of the public and the environment. For any spill where waste leaves the permit area as delineated in the permittee's application and the information supplied under Section B of this general permit or reaches the waters of the Commonwealth, the permittee shall immediately notify the Department's Emergency Hotline at (717) 787-4343 and the Department's Regional Office in the region where the R&D project takes place.
- 4. **Status Report.** Every four months from the start to the completion of the R&D project, unless a less frequent time frame is approved by the Department, the permittee shall submit two (2) copies of a status report to the Department (one to the address in paragraph B.1 and the other to the Department's Regional Office in the region where the R&D project takes place). This report shall contain a summary of the quantities, sources and identities of wastes utilized in the project; a description of how successful the project is proceeding to that point; and an updated estimation of the project completion date. The permittee shall retain a copy of the information used to prepare these status reports for a minimum of five (5) years after completion of the R&D project.
- 5. **Phase Status Report.** If required under paragraph B.3, within 60 days after the conclusion of each phase, two (2) copies of a completed phase report form shall be submitted to the Department (one to the address in paragraph B.1 and the other to the Department's Regional Office in the region where the R&D project is taking place).
- 6. Completion Report. The permittee shall submit two (2) copies of a report to the Department (one to the address in paragraph B.1 and the other to the Department's Regional Office in the region where the R&D project takes place) within three (3) months following completion of the project. This report shall contain a summary of the quantities, sources and identities of wastes utilized in the project; all analyses conducted as part of the project; location of final disposition of all wastes utilized or generated by the project; an evaluation of the success (including consistency of the results) of the R&D project; and an economic analysis of the benefits to the Commonwealth and the permittee or the person for whom the R&D project was conducted. The permittee shall retain a copy of the information used to prepare the report for a minimum of five (5) years after completion of the R&D project.

F. Permit Expiration.

This general permit will expire on March 1, 2017.

G. Permit Renewal.

A person or municipality that plans to continue the operations authorized under this general permit, after the expiration date indicated on the approval for coverage page and up to March 1, 2017, shall file a new registration application for the 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 application shall be made by following the instructions of paragraph B.1 of this general permit.

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 18701-1915 Phone: (570) 826 – 2511

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 3rd Street - Suite 101 Williamsport, PA 17701 Phone: (570) 327 – 3653

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

Southwest Regional Office

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

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

Northwest Regional Office

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