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

Amended March 14, 2012

Expires October 4, 2020

Rev. 3/2012

#### A. Description and Definitions.

- 1. This general permit authorizes the processing, transfer and beneficial use of oil and gas liquid waste to develop or hydraulically fracture an oil or gas well.
- 2. Definitions. For purposes of this general permit, the following words and terms have the following meanings:

De-waste – A determination made by the Department of Environmental Protection that a material is no longer a waste.

Facility – As defined in 25 Pa. Code § 287.1. The term includes processing facilities and transfer facilities.

Oil and gas liquid waste – The term includes liquid wastes from the drilling, development and operation of oil and gas wells and transmission facilities. The term includes contaminated water from well sites, the development of transmission pipelines and the facility operating under this general permit, provided the generating facility has satisfied all other permitting requirements that may apply to contaminated water. The term does not include condensate from oil and gas transmission pipeline compressor stations that exhibits a characteristic of hazardous waste under 40 CFR Part 261, Subpart C, as incorporated by reference at 25 Pa. Code § 261a.1.

#### B. Registration 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 registration from the appropriate Department Regional Office (see attached list) prior to commencing authorized activities under this general permit. A registration shall include the following:

- (i) General Information Form (Authorization Application for a Residual or Municipal Waste General Permit Application),
- (ii) Form B (Professional Certification),
- (iii) Form 20 (Application For A Municipal or Residual Waste General Permit),
- (iv) Form 27R (Acceptance of General Permit Conditions),
- (v) Bonding Worksheets,
- (vi) Form X (Radiation Protection Action Plan)
- (vii) A application fee in the amount identified in Section A (General Information) of Form 20 payable to the "Commonwealth of Pennsylvania."

No activities shall commence unless and until approved, in writing, by the Department.

Rev. 3/2012

#### C. Operating Conditions.

- 1. 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 Solid Waste Management Act, 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 4005; 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.
- 2. The processing and beneficial use 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.
- 3. 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 general permit, for any reason, shall be grounds for the revocation or suspension of the permittee's approval to operate under this general permit.
- 4. 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 oil and gas liquid waste and solids generated that contain technologically enhanced naturally occurring radioactive material (TENORM), and be implemented during all phases of operations at the facility.
- 5. The permittee shall not cause or allow a point or non-point source discharge of any of the following: 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; to the surface waters of the Commonwealth, unless permitted by the Department.

- 6. The oil and gas liquid waste that is processed and beneficially used under this general permit shall not be mixed with other types of waste materials, including hazardous waste, municipal waste, special handling waste, or other residual waste, unless otherwise approved by the Department in writing.
- 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.
- 8. The processing, storage and transportation of the oil and gas liquid waste and any other wastes that are generated 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.
- 9. Except as provided for in Condition C.21.b, the oil and gas liquid waste, before and after processing, and all other wastes generated by the operation shall be stored and transported in accordance with 25 Pa. Code Chapter 299 (relating to storage and transportation) and the Waste Transportation Safety Act, 27 Pa. C.S. §§ 6201 6209.
- 10. Best Management Practices (BMPs) shall be implemented to divert stormwater runon away from the facility. Stormwater runoff shall be managed in accordance with The Clean Streams Law and regulations promulgated thereunder. 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.
- 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. §§ 4001-4005 and shall comply with all applicable provisions of the Fugitive Emissions Sections 123.1, 123.2, and 123.31.
- 12. A financial bond, which guarantees the removal and proper management of the maximum volume of oil and gas liquid waste (before, during and after processing) and other wastes at the facility at any one time, is required. 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 removal 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 environment.

- 13. As a condition of this permit and of the permittee's authority to conduct the activities authorized by this 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 to inspect all areas on which solid waste management activities required of the permittee 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; to perform measurements, surveys, and other tests; inspect any monitoring equipment; to inspect the methods of operation; and to inspect and/or copy documents, books, and papers required by the Department to be maintained. This permit condition is referenced in accordance with §§608 and 610(7) of the Solid Waste Management Act, 35 P.S. §§ 6018.608 and 6018.610(7). This condition in no way limits any other powers granted under the Solid Waste Management Act.
- 14. Any waste generated from the processing activity authorized by this general permit or processed oil and gas liquid waste that is not beneficially used shall be managed in accordance with the Solid Waste Management Act, 35 P.S. §§ 6018.101 6018.1003 and the regulations promulgated thereunder.
- 15. All activities conducted under the authorization granted in this permit shall be conducted in accordance with the permittee's application, except to the extent that there is a conflict with the regulations or governing statutes.
- 16. Any independent contractors or agents retained by the permittee in the completion of processing and beneficial use activity authorized under this permit shall be subject to a compliance history review by the Department prior to performance of activities under this general permit, as specified by the Solid Waste Management Act, 35 P.S. §§ 6018.101 6018.1003.
- 17. A Preparedness, Prevention and Contingency (PPC) plan that is consistent with the most recent edition of the Department's "Guidelines for the Development and Implementation of Environmental Emergency Response Plans" shall be developed and maintained at the facility. The PPC plan shall be updated as needed or at least every five years. 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.
- 18. Upon cessation of operations at the facilities operating under the authorization granted in this permit, the permittee 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 Solid Waste Management Act, 35 P.S. §§ 6018.101 6018.1003, other environmental protection acts and the regulations promulgated thereunder.

Rev. 3/2012

19. 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, 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 application shall be made using the "Form 20 (Application for a Municipal or Residual Waste 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.

- 20. 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 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. Within 300 feet measured horizontally from an occupied dwelling unless one of the following conditions are 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, or
    - 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.
  - d. 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.
- e. Within 100 feet of a perennial stream unless the storage and processing will not occur within that distance and no adverse hydrologic or water quality impacts will result.
- f. Within 150 feet of high quality or exceptional value waters, as defined in 25 Pa. Code § 93.1.
- g. Within 300 feet of a water source unless the owner has provided a written waiver consenting to the facility being closer than 300 feet.
- h. Within 900 feet measured horizontally from the property line, unless a written waiver is obtained from the current property owner of:
  - A building owned by a school district or parochial school and used for instructional purposes;
  - ii. A park;
  - iii. A playground.
- i. In an area where the facility would adversely affect a habitat of a known endangered or threatened species.
- 21. Oil and gas liquid waste that has been processed under the authority of this general permit is not considered a waste as defined in 25 Pa. Code § 287.1 (i.e. de-wasted) after one of the following occurs:
  - a. The processed oil and gas liquid waste has been transported to a Department-permitted well site, as defined in § 603a of the Oil and Gas Act
  - (58 P.S. § 601.603a), the owner or operator of the well site meets the conditions of §603a, and the processed oil and gas liquid waste is beneficially used to develop or hydraulically fracture an oil or gas well. Processed oil and gas liquid waste shall be managed as a residual waste at the well site pursuant to 25 Pa. Code Chapter 78 until it is used to develop or hydraulically fracture an oil or gas a well; or

- b. The processed oil and gas liquid waste meets the concentration limits in Appendix A of this general permit and, will be stored in an impoundment or other facility designed to hold water to develop or hydraulically fracture an oil or gas well. The impoundment or other facility must be owned or operated by the permittee or the owner or operator of an oil or gas well. Transportation shall be done in accordance with the following:
  - Processed oil and gas liquid waste meeting the requirements of Condition C.21.b is not a residual waste when transported to the impoundment or other facility.
  - ii. If processed oil and gas liquid waste meeting the requirements of Condition C.21.b will be transported in a vehicle that previously contained residual waste, the vehicle must be decontaminated prior to transporting the processed oil and gas liquid waste to the impoundment or other facility.
- 22. Prior to the initial storage and dewasting of processed oil and gas liquid waste in accordance with Condition C.21.b, the permittee shall demonstrate that the processed oil and gas liquid waste meets the limits in Appendix A by submitting analytical data to the DEP Regional Office serving the county in which the facility is located for approval. The analytical data shall consist of the following:
  - a. A minimum of 14 consecutive daily flow proportional composite samples analyzed for strontium, barium and total dissolved solids (TDS).
  - b. A minimum of 2 weekly flow proportional composite samples which are taken a minimum of 7 days apart analyzed for all constituents listed in Appendix A except ammonia, benzene, methanol and toluene.
  - c. A minimum of 2 grab samples taken a minimum of 7 days apart analyzed for ammonia, benzene, methanol and toluene.
- 23. To continue storing processed oil and gas well liquid waste in accordance with Condition C.21.b, the permittee shall demonstrate that the oil and gas liquid waste continues to meet the limits in Appendix A by:
  - a. Collecting daily flow proportional composite samples and analyzing them for strontium, barium and TDS.
  - b. Collecting weekly flow proportional composite samples and analyzing them for all constituents listed in Appendix A except ammonia, benzene, methanol and toluene.
  - c. Collecting weekly grab samples and analyzing them for ammonia, benzene, methanol and toluene.

Rev. 3/2012

- d. If the results of any future sampling taken to satisfy this condition fail to meet the concentration limits in Appendix A, the permittee must immediately notify the DEP and manage the processed oil and gas liquid waste as a residual waste. The processed oil and gas liquid waste is not de-wasted under Condition C.21.b until the permittee demonstrates to the Department's satisfaction that the limits in Appendix A are met.
- 24. 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 Examination of Water and Liquid waste" (prepared and published jointly by the American Public Health Association, American Water Works Association, and Water Pollution Control 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.
- 25. The analyses shall be performed by a laboratory accredited or registered for accreditation under the Environmental Laboratory Accreditation Act, 27 Pa.C.S.A. §§ 4101-4113.

#### D. Recordkeeping.

- The permittee shall maintain records of the processing and beneficial use of oil and gas liquid waste as follows:
  - a. The volumes of the fresh surface water and other water sources withdrawn for use by the facility.
  - b. Names of the generators and locations where the oil and gas liquid waste is generated.
  - c. The dates and volumes of oil and gas liquid waste received by the facility.
  - d. The dates and volumes of processed oil and gas liquid waste and wastes produced by the operation of the facility as follows:
    - i. for continuous processes, the volumes should be recorded on a daily basis.
    - ii. for batch processes, the volumes should be recorded on a per batch basis.
  - e. The dates, volumes, and locations, including the names of the facilities to which the processed oil and gas liquid waste is transported for beneficial use, disposal, storage, transfer or processing.

Rev. 3/2012

- f. The maximum volume of all unprocessed and processed oil and gas liquid waste and other wastes that are managed at the facility each day to demonstrate that the volumes used to calculate the bond are not exceeded. This includes all materials generated, received, processed and stored at the facility.
- g. All sampling and analytical results required by Conditions C.22 C.23.
- 2. All records required in this general permit shall be maintained on-site for a minimum of five years and shall be made available to the Department upon request. Should a facility be no longer located at the site where the processing occurred, the records shall be maintained by the permittee for a minimum of five years and shall be made available to the Department upon request.

#### E. Reporting Requirements.

- 1. Any person who operates under the provisions of this permit shall immediately notify, in writing, within 15 days the Solid Waste Manager of the appropriate regional office of the Department (address in attached list) 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; and the status of any permit issued by the Department or federal government under the environmental protection acts.
- 2. Any person currently operating under the provisions of this general permit must notify the Department's Regional Office having jurisdiction over the new processing facility, 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.
  - In addition to the notice, the following must be submitted for the Department's approval:
    - i. A completed Form 20 (Application for a Municipal or Residual Waste General Permit);
    - ii. An application fee in the amount identified in Section A (General Information) of Form 20 made payable to the "Commonwealth of Pennsylvania"; and completed bonding worksheets.
  - b. The new or relocated facility shall not operate until adequate bonding has been approved by the Department. When an existing facility is relocated, the existing bond may be used to cover the new facility, provided the bond amount adequately covers the operations at the new or relocated facility.

Rev. 3/2012

3. The permittee shall immediately notify the Department's Emergency Hotline by telephone at 800-541-2050 and the appropriate DEP regional office waste management program in the event of a discharge or any spill of oil and gas liquid waste generated or processed in a quantity capable of reaching surface water, and shall take appropriate immediate action to protect the health and safety of the public and the environment.

#### **APPENDIX A:**

The following maximum concentrations were derived from drinking water standards, water quality standards for rivers and streams, and typical values observed in fresh water rivers and streams.

Constituent	<u>Limit</u>
Aluminum	0.2 mg/L
Ammonia	2 mg/L
Arsenic	10 μg/L
Barium	2 mg/L
Benzene	0.12 μg/L
Beryllium	4 μg/L
Boron	1.6 mg/L
Bromide	0.1 mg/L
Butoxyethanol	0.7 mg/L
Cadmium	0.16 μg/L
Chloride	25 mg/L
COD	15 mg/L
Chromium	10 μg/L
Copper	5 μg/L
Ethylene Glycol	13 μg/L
Gross Alpha	15 pCi/L
Gross Beta	1,000 pCi/L
Iron	0.3 mg/L
Lead	1.3 μg/L
Magnesium	10 mg/L
Manganese	0.2 mg/L
MBAS (Surfactants)	0.5 mg/L
Methanol	3.5 mg/L
Molybdenum	0.21 mg/L
Nickel	30 μg/L
Nitrite-Nitrate Nitrogen	2 mg/L
Oil & Grease	ND
рН	6.5-8.5 SU
Radium-226 + Radium-228	5 pCi/L (combined)
Selenium	4.6 μg/L
Silver	1.2 μg/L
Sodium	25 mg/L
Strontium	4.2 mg/L
Sulfate	25 mg/L
Toluene	0.33 mg/L
TDS .	500 mg/L
TSS	45 mg/L
Uranium	30 μg/L
Zinc	65 µg/L

### 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 3<sup>rd</sup> 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