



pennsylvania

DEPARTMENT OF ENVIRONMENTAL PROTECTION
NORTHWEST REGIONAL OFFICE

August 3, 2011

Mr. Anthony Cialella
Advanced Waste Services of PA, LLC.
1001 Sampson Street
New Castle, PA 16101

Re: General Permit WMGR123NW001
Advanced Waste Services of PA, LLC
City of New Castle, Lawrence County
APS No. 751520, Auth No. 882354

Dear Mr. Cialella:

Enclosed is Solid Waste Permit General Permit No. WMGR123NW001 for the beneficial reuse of Marcellus Shale gas well waters, issued in accordance with Article V of the Solid Waste Management Act, 35 P.S. §6018.101, et seq.

If you have any questions about the enclosed permit or requirements of the Solid Waste Management Act, please contact Joel Fair or Rob Bechtel at the address and telephone number below.

Sincerely,

A handwritten signature in blue ink that reads "Todd Carlson".

Todd Carlson
Regional Manager
Waste Management

Enclosure

cc: City of New Castle (w/enclosure)
Lawrence County Commissioners (w/enclosure)
Jerry Berg (w/enclosure)
Regional (w/enclosure)
Central - M&R Waste Division (w/enclosure)

TC:JF:ll

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

**General Permit
For
Processing/Beneficial Use of Residual Waste**

Permit No. WMGR123NW001

Date Amended _____

Date Issued 8/03/2011

Date Expires 10/04/2020

The Department of Environmental Protection, Bureau of Waste Management, Division of Municipal and Residual Waste hereby approves the:

Beneficial Use Processing prior to Beneficial Use Other

of: "frac" water, generated during hydraulic fracturing and extraction of natural gas from Marcellus Shale geologic formations, and drilling water generated during drilling of natural gas wells in Marcellus Shale geologic formations.

for use as: hydraulic stimulation fluid to be used as makeup water for further hydraulic fracturing and extraction of natural gas from Marcellus Shale geological formations.

This approval is granted to: Advanced Waste Services of Pennsylvania, LLC

subject to the attached conditions and may be revoked or suspended for any project which the Department of Environmental Protection determines to have a substantial risk to public health, the environment, or cannot be adequately regulated under the provisions of this permit.

The processing of wastes not specifically identified in the documentation submitted for this approval, or the beneficial use of wastes not approved in this permit, is prohibited without the written permission of the Department.

This permit is issued under the authority of the Solid Waste Management Act (35 P.S. §§6018.101-6018.1003), The Pennsylvania Used Oil Recycling Act (58 P.S. §§471-480), The Clean Streams Law (35 P.S. §§691.1-691.1001), Sections 1905-A, 1917-A and 1920-A of the Administrative Code of 1929 (71 P.S. §§510-5, 510-17 and 510-20) and the Municipal Waste Planning, Recycling and Waste Reduction Act (53 P.S. §§4000.101-4000.1904).

This approval is granted:

By: *Todd Carlson*

Statewide Regional

Title: Environmental Program Manager

SPECIAL CONDITIONS GENERAL PERMIT WMGR123

A. Description.

1. This general permit authorizes the processing of drilling fluids, raw gas well flow back and produced water, hereinafter referred to as "frac" water, generated during hydraulic fracturing and extraction of natural gas from Marcellus Shale geologic formations, and drilling water generated during drilling of natural gas wells in Marcellus Shale geologic formations, hereinafter referred to as "drilling water".
2. The resultant processed drilling fluids, gas well frac and drilling water is authorized for beneficial use to manufacture hydraulic stimulation fluid to be used as makeup water for further hydraulic fracturing and extraction of natural gas from Marcellus Shale geological formations, provided that:
 - a. Drilling fluids and hydraulic stimulation fluid conforms to industry gas well fracing fluid quality standards for which it is being used; and
 - b. All activities associated with the beneficial use of hydraulic stimulation fluid occur on the well site as defined in Section 603(a) of the Oil and Gas Act (58 P.S. §601.603a).

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 completed (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, and (vi) a registration application fee in the amount identified in Section A (General Information) of the Form 20 must be submitted to the appropriate Department Regional Office. A check shall be made payable to the "Commonwealth of Pennsylvania". No activities shall commence unless approved, in writing, by the Department.

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 an Gas Act, §§58 P.S. 601.101 -

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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 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's approved Radiation Protection (RP) Action Plan, for the facility must be maintained at the facility at all times. The RP plan must address the handling of drilling fluids, frac waters 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; wastewater; combined storm water 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 drilling fluids, frac and drilling water 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.
7. 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 drilling fluids, frac and drilling water and any other wastes that are generated shall be conducted in a manner that

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will not create a nuisance or be harmful to the public health, safety or the environment of this Commonwealth.

9. The drilling fluids, frac and drilling water, 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. In addition, the facility shall be in compliance with federal and state statutes, rules and regulations relating to transportation.
10. Best Management Practices (BMPs) shall be implemented to divert storm water run-on away from the facility. Storm water 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 obtain all the necessary storm water 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, the Act of January 8, 1960, P.L. 2119, 35 P.S. §4005 and shall comply with all the 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 drilling fluids, frac and drilling water (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 and beneficial use activity authorized by this general permit shall be managed in accordance with the Solid Waste

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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. The (i) processed drilling fluids, gas well frac and drilling water that is not beneficially used in accordance with this general permit, and (ii) any waste generated from the processing and beneficial use activity authorized by this general permit shall be managed properly at a permitted disposal facility unless authorized by the Department, in writing, to do otherwise.
17. 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.
18. 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.
19. Upon cessation of operations at the facilities operating under the authorization granted in this permit, the operator 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, other environmental protection acts and the regulations promulgated thereunder.
20. 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

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renewal for permit coverage provided the permittee is, and has been, operating in compliance with the terms and conditions of the general permit.

21. 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 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.
 - 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 300 feet of a water source unless the owner has provided a written waiver consenting to the facility being closer than 300 feet.
 - g. Within 900 feet measured horizontally from the property line, 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;

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- iii. A playground.
 - h. In an area where the facility would adversely affect a habitat of a known endangered or threatened species.
22. Drilling fluids, frac water and drilling water that has been processed under the authority of this general permit is not considered a waste as defined in 25 Pa. Code § 287.1 after the processed drilling fluids, frac and drilling water has been transported to a Department permitted well site, as defined in § 603a of the Oil and Gas Act (58 P.S. § 601.603a) and in accordance with Chapter 78 (relating to oil and gas wells), and is beneficially used to fracture a well. Processed drilling fluids, frac and drilling water will be managed as a residual waste at the well site pursuant to 25 Pa. Code Chapter 78 until it is used to fracture a well.

D. Record Keeping.

1. The permittee shall develop documents of the processing and beneficial use of drilling fluids, frac and drilling water 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 drilling fluids, frac and drilling water is generated.
 - c. The dates and volumes of drilling fluids, frac and drilling water received by the facility.
 - d. The dates and volumes of hydraulic stimulation fluid and wastes produced by the operation of the facility.
 - e. The dates, volumes, receiving well site location and identities of customers for each delivery or pickup of hydraulic stimulation fluid at or from the facility.
 - f. For each day, the maximum volumes of drilling fluids, frac and drilling water (before, during and after processing), hydraulic stimulation fluid and other wastes at the facility.
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.

F. 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

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name, address, owners, operators, 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, 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 information below must be submitted for the Department's approval.
 - a. If the existing processing facility will be relocated or additional processing facility will be located within the same Department's Regional Office having jurisdiction over the existing processing facility, the following conditions must be satisfied:
 - i. For a relocation, a registration fee in the amount identified in Section A (General Information) of the Form 20 (Application For A Municipal or Residual Waste General Permit) must be submitted, no less than thirty (30) working days, prior to operating the new processing facility. The permittee may process and beneficially use the drilling fluids and frac water processed at the new location in accordance with the conditions of this general permit after the aforementioned fifteen day period unless otherwise instructed by the Department.
 - ii. For an additional processing facility, (1) a registration fee in the amount identified in Section A (General Information) of the Form 20 (Application For A Municipal or Residual Waste General Permit), and (2) a completed bonding Worksheets A through E (document numbered 2540-FM-BWM0586).

The check shall be made payable to the "Commonwealth of Pennsylvania".

- b. If the existing processing facility will be relocated or additional processing facility will not be located within the same Department's Regional Office having jurisdiction over the existing processing facility, a completed set of application Forms and the registration fee as specified in Condition B of this general permit must be submitted to the Department's Regional Office having jurisdiction over the (1) new setting, or (2) additional processing facility for its approval. No activities shall commence unless approved, in writing, by the Department. The check shall be made payable to the "Commonwealth of Pennsylvania".
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 drilling fluids, frac water generated or processed in a quantity capable of reaching surface water, and

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shall take appropriate immediate action to protect the health and safety of the public and the environment.

**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 – 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 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