

**Rachel Carson State Office Building**  
**P.O. Box 8467**  
**Harrisburg, PA 17105-8467**  
October 16, 2008

**Bureau of Water Standards and Facility Regulation**

717-787-5017

«FIRSTNAME»  
«BUSINESS»  
«ADDRESSLINE1»  
«ADDRESSLINE2»  
«CITY» «STATE» «ZIPCODE»

Re: Accepting Brine or Fracturing Wastewater from Oil  
and Gas Operations, Including Natural Gas Drilling and  
Recovery in the Marcellus Shale Formation

Dear «SALUTATION2»:

Facilities authorized to discharge treated wastewater under National Pollutant Discharge Elimination System (NPDES) permits that are considering accepting industrial wastewater, including hauled-in brine or fracturing fluid wastewater from oil and gas well operations, must notify the Pennsylvania Department of Environmental Protection (Department) and obtain approval prior to accepting the wastewater. Accepting this type of wastewater will likely require an amendment to your NPDES permit.

It is important to note that this is not a new requirement. Regulations at 25 Pa. Code 92.7 require that the Department evaluate new waste streams involving any new or increased pollutant that has not previously been evaluated. The introduction of new waste streams and pollutants must be evaluated, specifically with respect to:

- Avoiding adverse effects on the operation of the facility, especially the biological treatment processes.
- Avoiding the contamination of the residual biosolids that may preclude land application.
- Avoiding adverse effects of these new or additional pollutant loadings on the receiving waters. In addition to local water quality concerns, the Department must evaluate and track the cumulative effect of multiple loadings of these pollutants on the receiving waters. This evaluation may result in limits on the rate at which brine or fracturing fluid wastewater can be processed through your facility. Additional monitoring and reporting requirements for the hauled-in wastewater and the facility discharges are likely.

Enclosure 1 lists the information that should be submitted to the appropriate regional office for evaluation. A list of regional offices is enclosed with this letter.

Certain basic requirements apply:

- If the facility has an EPA-approved pretreatment program, the facility must comply with all the provisions of that program.
- Wastewater must be introduced at the headworks of the facility. No treatment units can be bypassed.
- Wastewater may not cause or contribute to overflows, surcharges or bypasses in any collection, conveyance or treatment system.
- In all cases, the permittee remains fully responsible for complying with all terms and conditions of the NPDES permit.

In the event that you already have accepted brine or fracturing fluid wastewater from oil and gas well operations, are processing it through your facility and your NPDES permit does not reflect that activity, you should immediately notify the Water Quality Manager at the regional office for your area, and compile and submit the information in Enclosure 1. Permittees who fail to report new or additional waste streams or pollutants are in violation of the terms of their NPDES permit and may be subject to enforcement action.

Please feel free to contact the Water Quality Manager at the corresponding regional office should you have any questions regarding this letter.

Sincerely,

Dana K. Aunkst  
Director  
Bureau of Water Standards  
and Facility Regulation

Enclosures

cc: Regional Water Program Manager

## ENCLOSURE 1

In addition to a cover letter serving as a notice of the proposal, signed by permittee's authorized representative, provide the following information:

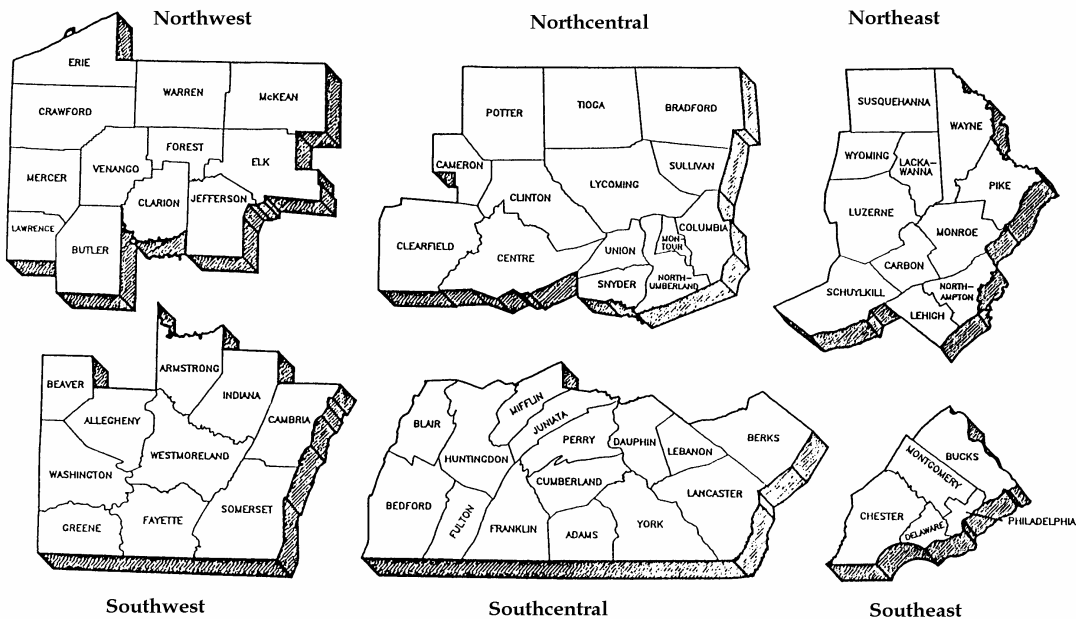
- Originating company and facility or well site. If more than one facility or well is proposed, list all and provide separate sampling results.
- Maximum daily volume of hauled-in wastewater.
- Estimated minimum average daily flow at the facility when accepting the wastewater.
- Maximum flow rate proposed for introduction of wastewater at headworks.
- A statement certifying that the hauled-in wastewater is not classified as hazardous waste as defined in the NPDES permit.
- A technical evaluation of the impact of the hauled-in wastewater on the treatment process, including:
  - An evaluation of the effect on each of the major unit processes, including an estimate of the maximum Total Dissolved Solids that will occur in each unit process or reactor.
  - A description of measures that will be taken to monitor and minimize adverse effects on biological unit processes.
  - Quantitative estimates of anticipated changes in effluent characteristics for all new or increased pollutants.
  - A description of how the permittee will assure that the treatment facility sludge will not be classified as hazardous waste as a result of the hauled-in wastewater.
  - Any resulting constraints on sludge treatment and disposal.
  - Representative grab sampling results for the parameters listed below.

### **Parameter List: Minimum Testing Requirements for the Process of Wastewater from the Oil & Gas Extraction Industry**

Aluminum	Silver	Osmotic Pressure
Arsenic	Strontium	Specific Conductance
Barium	Zinc	Hardness (Total as CaCO <sub>3</sub> )
Beryllium		Alkalinity (Total as CaCO <sub>3</sub> )
Boron	Lithium	Total Dissolved Solids
Cadmium	Sodium	Total Suspended Solids
Chromium	pH	Acidity
Cobalt	Nitrite-Nitrate Nitrogen	
Copper	Total Kjeldahl Nitrogen	
Iron – Dissolved	Ammonia Nitrogen	
Iron – Total	Oil & Grease	Gross Alpha
Lead	MBAS (Surfactants)	Gross Beta
Magnesium	Chemical Oxygen Demand	
Manganese	Biochemical Oxygen Demand	Phenolics (Total)
Mercury	Calcium	Toluene
Nickel	Chlorides	Benzene
Selenium	Sulfates	Ethylene Glycol

NOTE: All metals as total unless otherwise noted.

# Regional Water Management Program Listing



## Northwest Region Region 6 (Meadville)

Ricardo Gilson  
Water Program Manager  
230 Chestnut St.  
Meadville, PA 16335-3481  
814-332-6945  
814-332-6121 *fax*

**Counties:** Butler, Clarion, Crawford, Elk, Erie, Forest, Jefferson, Lawrence, McKean, Mercer, Venango and Warren

## Northcentral Region Region 4 (Williamsport)

Robert Hawley  
Water Program Manager  
208 W. Third St., Suite 101  
Williamsport, PA 17701  
570-327-3636  
570-327-3565 *fax*

**Counties:** Bradford, Cameron, Clearfield, Centre, Clinton, Columbia, Lycoming, Montour, Northumberland, Potter, Snyder, Sullivan, Tioga and Union

## Northeast Region Region 2 (Wilkes-Barre)

Kate Crowley  
Water Program Manager  
2 Public Square  
Wilkes-Barre, PA 18711-0790  
570-826-2511  
570-830-3016 *fax*

**Counties:** Carbon, Lackawanna, Lehigh, Luzerne, Monroe, Northampton, Pike, Schuylkill, Susquehanna, Wayne and Wyoming

## Southwest Region Region 5 (Pittsburgh)

Sam Harper  
Water Program Manager  
400 Waterfront Drive  
Pittsburgh, PA 15222-4745  
412-442-4000  
412-442-4242 *fax*

**Counties:** Allegheny, Armstrong, Beaver, Cambria, Fayette, Greene, Indiana, Somerset, Washington and Westmoreland

## Southcentral Region Region 3 (Harrisburg)

Lee McDonnell  
Water Program Manager  
909 Elmerton Ave.  
Harrisburg, PA 17110  
717-705-4700  
717-705-4710 *fax*

**Counties:** Adams, Bedford, Berks, Blair, Cumberland, Dauphin, Franklin, Fulton, Huntingdon, Juniata, Lancaster, Lebanon, Mifflin, Perry and York

## Southeast Region Region 1 (Norristown)

Jenifer Fields  
Water Program Manager  
2 E. Main St.  
Norristown, PA 19401  
484-250-5900  
484-250-5971 *fax*

**Counties:** Bucks, Chester, Delaware, Montgomery and Philadelphia