



Id. No. 109-00041 Reg. G30-D197  
 Company Enervest Operating, LLC  
 Facility Glen Rogers Region 5  
 Initials REM

**west virginia department of environmental protection**

Division of Air Quality  
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Earl Ray Tomblin, Governor  
 Randy C. Huffman, Cabinet Secretary  
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**ENGINEERING EVALUATION / FACT SHEET**

**BACKGROUND INFORMATION**

Application No.: G30-D197  
 Plant ID No.: 109-00041  
 Applicant: Enervest Operating, LLC  
 Facility Name: Glen Rogers Station  
 Location: Wyoming County  
 NAICS Code: 211111  
 Application Type: Construction  
 Received Date: September 21, 2015  
 Engineer Assigned: Thornton E. Martin Jr.  
 Fee Amount: \$1,500  
 Date Received: September 23, 2015  
 Complete Date: October 02, 2015  
 Applicant Ad Date: August 31, 2015  
 Newspaper: *The Wyoming County Report*  
 UTM's: Easting: 461.393 km Northing: 4,173.725 km Zone: 17  
 Description: Removal of Ajax DPC-360, 346 hp engine and replace with one (1) 145 hp natural gas fired engine. Installation of a pipeline liquids tank.

**DESCRIPTION OF PROCESS**

Coal bed methane is pumped out of the inactive coal mine workings. Natural gas is produced from coal bed methane wells as well as conventional wells where it is transported via pipeline to the Ravenscliff compressor station where it will be compressed to a higher pressure. It is then discharged into the pipeline system. Pipeline liquids will be removed from the natural gas stream and sent to a 20 bbl pipeline liquids tank(T-001). Pipeline quality natural gas is combusted in the 145 hp Caterpillar G3306NA four-stroke rich-burn compressor engine (E-1).

## SITE INSPECTION

Directions: From Glen Rogers drive southwest on Glen Rogers Rd. 0.5 miles. Turn left onto gravel road, cross creek and continue until arriving at compressor station.

## ESTIMATE OF EMISSIONS BY REVIEWING ENGINEER

Maximum controlled point source emissions from Enervest Operating, LLC's natural gas compressor station are summarized in the table below.

Source ID	Emission Source	Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (tpy)
E-1	Caterpillar G3306NA 145 hp	Nitrogen Oxides	7.71	33.76
		Carbon Monoxide	0.45	1.96
		Volatile Organic Compounds	0.05	0.23
		Sulfur Dioxide	0.001	0.003
		PM <sub>10</sub>	0.01	0.046
		Formaldehyde	0.074	0.322

## REGULATORY APPLICABILITY

**45CSR4** *To Prevent and Control the Discharge of Air Pollutants Into the Open Air Which Causes or Contributes to an Objectionable Odor or Odors*

The facility is subject to the requirements of 45CSR4 and shall not allow the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public.

**45CSR13** *Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits, and Procedures for Evaluation*

The proposed construction is subject to the requirements of 45CSR13 because Enervest Operating, LLC has voluntarily submitted a permit application.

**45CSR22** *Air Quality Management Fee Program*

This source is subject to this rule due to the construction application fee and the annual operating fee.

## GENERAL PERMIT ELIGIBILITY

The proposed construction and operation of this facility meets the eligibility, siting, limitations, and emissions controls as specified in General Permit G30-D. Enervest Operating, LLC is not subject to 40CFR60 Subpart IIII or 40CFR60 Subpart JJJJ.

## TOXICITY OF NON-CRITERIA REGULATED POLLUTANTS

### Formaldehyde

Formaldehyde is used mainly to produce resins used in particle board products and as an intermediate in the synthesis of other chemicals. Exposure to formaldehyde may occur by breathing contaminated indoor air, tobacco smoke, or ambient urban air. Acute (short-term) and chronic (long-term) inhalation exposure to formaldehyde in humans can result in respiratory symptoms, and eye, nose, and throat irritation. Limited human studies have reported an association between formaldehyde exposure and lung and nasopharyngeal cancer. Animal inhalation studies have reported an increased incidence of nasal squamous cell cancer. EPA considers formaldehyde a probable human carcinogen (Group B1).

## RECOMMENDATION TO DIRECTOR

Enervest Operating, LLC's request to modify a natural gas compressor station at the Glen Rogers, Wyoming County, WV site meets the requirements of General Permit G30-D and all applicable rules and regulations and therefore should be granted a General Permit Registration to modify and operate the said facility.

  
Thornton E. Martin Jr.  
Permit Engineer

October 02, 2015

Date

Fact Sheet G30-D197  
Enervest Operating, LLC  
Glen Rogers Station