



west virginia department of environmental protection

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**GENERAL PERMIT REGISTRATION APPLICATION
ENGINEERING EVALUATION / FACT SHEET**

BACKGROUND INFORMATION

Registration No.: G35-A090A
Plant ID No.: 047-00071
Applicant: Cranberry Pipeline Corporation
Facility Name: Poca T Compressor Station
Location: Newhall, McDowell County
SIC Code: 1311
NAICS Code: 211111
Application Type: Class II Administrative Update
Received Date: October 15, 2015
Engineer Assigned: Caraline Griffith
Fee Amount: \$300.00
Date Received: October 16, 2015
Complete Date: November 17, 2015
Due Date: January 1, 2015
Applicant Ad Date: October 21, 2015
Newspaper: *The Welch News*
UTM's: Easting: 446.595 km Northing: 4,125.731 km Zone: 17
Description: Cranberry Pipeline proposes to update the natural gas reboiler from 0.18 mmBTU/hr to 0.25 mmBTU/hr. This equipment was incorrectly permitted in G35-A090. Cranberry also seeks to remove the TEG storage tank from the permit. The removal of the TEG tank is an after-the-fact update to the permit.

TYPE OF PROCESS

The Poca T natural gas production site operates in McDowell County, WV and consists of one (1) natural gas compressor engine, one (1) dehydration unit and associated 0.25 mmBTU/hr reboiler, and one (1) pipeline fluids tank. The natural gas will be transported on-site via pipeline, compressed, and dehydrated for delivery to the gas sales line.

Cranberry seeks authority to correct the burner rating of the glycol dehydrator reboiler (RBV-1) and remove the TEG Storage Tank (T02) currently permitted in G35-A090. The other permitted emissions units, ENG-1, RSV-1, and T01, are not being amended in this update.

SITE INSPECTION

A site inspection was conducted on February 20, 2013 by John Money Penny of the DAQ Enforcement Section. The permittee met the siting requirements set forth in G35-A and received site rating of 30.

Latitude: 37.27665
Longitude: -81.60223

ESTIMATE OF EMISSIONS BY REVIEWING ENGINEER

Emissions associated with this registration application consist of the combustion emissions from the one (1) compressor engine (ENG-1), one (1) pipeline liquids storage tank (T01), one (1) glycol dehydration unit still vent (RBV-1), one (1) glycol dehydration unit reboiler (BLR-1), and fugitive emissions. The following table indicates the source status of each piece of equipment:

Emission Unit ID#	Process Equipment	Source Status
ENG-1	346 hp Ajax DPC-360 Compressor Engine with AFRC	Existing
RBV-1	0.25 MMBtu/hr TEG Glycol Dehydration Unit Reboiler	Existing
RSV-1	3 mmscfd TEG Glycol Dehydration Unit	Existing
T01	500 gal Pipeline Fluids Storage Tank	Existing
T02	500 gal TEG Storage Tank	REMOVED

Fugitive emissions for the facility are based on calculation methodologies presented in the EPA's Protocol for Equipment Leak Emission Estimates. Fugitive VOC emissions were calculated using a representative gas analysis and the weight percent of VOC. The emissions calculations for the updated Reboiler (RBV-1) were calculated using AP-42.

Maximum controlled point source emissions from Cranberry's Poca T Compressor Station are summarized in the table below.

Source ID	Emission Source	Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (tpy) G35-A090	Maximum Annual Emissions (tpy) G35-A090A	Increase in Emissions (tpy)
RBV-1	0.25 MMBtu/hr TEG Dehy. Reboiler	Nitrogen Oxides	0.02	0.08	0.11	+0.03
		Carbon Monoxide	0.02	0.07	0.09	+0.02
		Volatile Organic Compounds	<0.01	<0.01	0.01	+0.01
		Particulate Matter-10	<0.01	0.01	0.01	--
		Sulfur Dioxide	<0.01	<0.01	<0.01	--
		Total HAPs	<0.01	<0.01	<0.01	--
RSV-1	3 mmscfd TEG Dehy. Still Vent	Volatile Organic Compounds	1.98	8.66	8.66	--
		Benzene	0.15	0.64	0.64	--
		Ethylbenzene	0.33	1.44	1.44	--
		Toluene	0.23	1.01	1.01	--
		Xylenes	0.36	1.57	1.57	--
		n-Hexane	0.04	0.15	0.15	--

The following table represents the facility wide total emissions:

Pollutant	Annual Emissions (tpy) G35-A090	Annual Emissions (tpy) G35-A090A
Nitrogen Oxides	21.11	21.14
Carbon Monoxide	4.75	4.77
Volatile Organic Compounds	16.23	16.24
Particulate Matter-10	0.53	0.53
Sulfur Dioxide	0.01	0.01
Formaldehyde	1.01	1.01
Total HAPs	4.78	4.78
Carbon Dioxide Equivalent	1,618	1,618

REGULATORY DISCUSSION

45CSR13 PERMITS FOR CONSTRUCTION, MODIFICATION, RELOCATION AND OPERATION OF STATIONARY SOURCES OF AIR POLLUTANTS, NOTIFICATION REQUIREMENTS, ADMINISTRATIVE UPDATES, TEMPORARY PERMITS, GENERAL PERMITS, PERMISSION TO COMMENCE CONSTRUCTION, AND PROCEDURES FOR EVALUATION

Cranberry Pipeline Corporation has demonstrated compliance with 45CSR13 by submitting a complete modification permit application, placing a legal advertisement in *The Welch News* on October 21, 2015, and paying the applicable fees.

45CSR22 AIR QUALITY MANAGEMENT FEE PROGRAM

The applicant has paid the \$300 application fee as required by this rule. Additionally, the source is required to maintain their certificate to operate.

TOXICITY OF NON-CRITERIA REGULATED POLLUTANTS

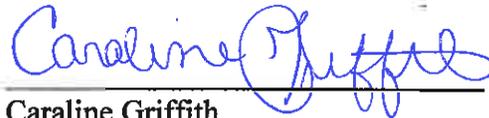
There will be small amounts of various non-criteria regulated pollutants emitted from the combustion of natural gas. However, due to the concentrations emitted, detailed toxicological information is not included in this evaluation.

AIR QUALITY IMPACT ANALYSIS

Modeling was not required of this source due to the fact that the facility is not subject to 45CSR14 (Permits for Construction and Major Modification of Major Stationary Sources of Air Pollutants) as seen in the table listed in the Regulatory Discussion Section.

RECOMMENDATION TO DIRECTOR

Cranberry's request to modify the emission levels from the glycol dehydration unit to reflect the updated wet gas analysis at the Newhall, McDowell County, WV site meets the requirements of General Permit G35-A and all applicable rules and regulations and therefore should be granted a General Permit Registration to update and operate the said facility. This permitting action would supersede and replace General Permit Registration G35-A090.



Caraline Griffith
Permit Engineer

11/23/15

Date