

RENEWAL TITLE V PERMIT APPLICATION

HORSEMILL COMPRESSOR STATION  
GLASGOW, WEST VIRGINIA  
PLANT ID. 039-00075

PREPARED FOR:

CRANBERRY PIPELINE CORPORATION  
PITTSBURGH, PENNSYLVANIA

PREPARED BY:

ENVIRONMENTAL REGULATORY SERVICE GROUP,  
INC.  
2288 ROXALANA ROAD  
DUNBAR, WEST VIRGINIA 25064

PROJECT NUMBER: ERSG 11-101-23

JUNE 2011



Environmental Regulatory Service Group, Inc.

2303 Roxalana Road  
Dunbar, West Virginia 25064  
Telephone: 304-746-4780 Fax: 304-746-4783

June 17, 2011

**HAND DELIVERED**

Project No. ERSG 11-101-23

John Benedict, Director  
WVDEP Division of Air Quality  
601 – 57<sup>th</sup> Street SE  
Charleston, West Virginia 25304

Title V (45CSR30) Permit Renewal Application  
Permit No. R30-03900075-2007  
Cranberry Pipeline Corporation's Horsemill Compressor Station

Dear Mr. Benedict:

Environmental Regulatory Service Group, Inc. (ERSG) has prepared the attached Title V (45CSR30) Permit Renewal Application on behalf of Cranberry Pipeline Corporation's Horsemill Compressor Station, Plant ID No. 039-00075, located in Glasgow, West Virginia.

If you have any questions, please contact Nathaniel Lanham at (304) 746-4780 ext. 5 or by e-mail at [nate@ersginc.com](mailto:nate@ersginc.com).

Sincerely,  
Environmental Regulatory Service Group, Inc.



Nathan Lanham  
Environmental Engineer

Attachments  
Cc: Randy Spencer, Cabot Oil & Gas Corporation

HC RCVD WV DEP JUN 17 2011 03:39 PM

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**Notes:**

Attachment F – Not included. Source is in compliance with all facility-wide applicable requirements.

Attachment G – Not included. No Control Devices.

Attachment H – Not included. No CAM Plan Requirements.



WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF AIR QUALITY

601 57th Street SE
Charleston, WV 25304
Phone: (304) 926-0475
www.dep.wv.gov/daq

INITIAL/RENEWAL TITLE V PERMIT APPLICATION - GENERAL FORMS

Section 1: General Information

Form with 10 numbered sections: 1. Name of Applicant (CRANBERRY PIPELINE CORPORATION), 2. Facility Name (HORSEMILL COMPRESSOR STATION), 3. DAQ Plant ID No. (0 3 9 - 0 0 0 7 5), 4. Federal Employer ID No. (0 4 2 9 8 9 9 3 4), 5. Permit Application Type (Permit Renewal), 6. Type of Business Entity (Corporation), 7. Is the Applicant the: (Both), 8. Number of onsite employees (0 - Unmanned Station), 9. Governmental Code (Privately owned and operated; 0), 10. Business Confidentiality Claims (No).

<b>11. Mailing Address</b>		
<b>Street or P.O. Box:</b> FIVE PENN CENTER WEST, SUITE 401		
<b>City:</b> PITTSBURGH	<b>State:</b> PA	<b>Zip:</b> 15276-0120
<b>Telephone Number:</b> (412) 249-3850		<b>Fax Number:</b> (412) 249-3855

<b>12. Facility Location</b>		
<b>Street:</b> HORSEMILL HOLLOW ROAD	<b>City:</b> GLASGOW	<b>County:</b> KANAWHA
<b>UTM Easting:</b> 461.61 km	<b>UTM Northing:</b> 4,232.07 km	<b>Zone:</b> <input checked="" type="checkbox"/> 17 or <input type="checkbox"/> 18
<b>Directions:</b>  WHEN TRAVELING SOUTH ON US-60 BEAR LEFT ONTO CR-8/1 (KELLYS CREEK) FOR APPROXIMATELY 0.1 MILES.TURN LEFT ON HORSEMILL HOLLOW ROAD FOR APPROXIMATELY 1.3 MILES.		
<b>Portable Source?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
<b>Is facility located within a nonattainment area?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<b>If yes, for what air pollutants?</b>	
<b>Is facility located within 50 miles of another state?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>If yes, name the affected state(s).</b> Kentucky and Ohio.	
<b>Is facility located within 100 km of a Class I Area<sup>1</sup>?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<b>If yes, name the area(s).</b>	
<b>If no, do emissions impact a Class I Area<sup>1</sup>?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
<sup>1</sup> Class I areas include Dolly Sods and Otter Creek Wilderness Areas in West Virginia, and Shenandoah National Park and James River Face Wilderness Area in Virginia.		

<b>13. Contact Information</b>		
<b>Responsible Official:</b> RANDY SPENCER		<b>Title:</b> MANAGER, SAFETY AND ENVIRONMENTAL
<b>Street or P.O. Box:</b> 5 Penn Center West Suite 401		
<b>City:</b> Pittsburgh	<b>State:</b> PA	<b>Zip:</b> 15276-0120
<b>Telephone Number:</b> (412) 249-3850	<b>Fax Number:</b> (412) 249-3855	
<b>E-mail address:</b> RANDY.SPENCER@CABOTOG.COM		
<b>Environmental Contact:</b> RANDY SPENCER		<b>Title:</b> MANAGER, SAFETY AND ENVIRONMENTAL
<b>Street or P.O. Box:</b> 5 Penn Center West, Suite 401		
<b>City:</b> Pittsburgh	<b>State:</b> PA	<b>Zip:</b> 15276-0120
<b>Telephone Number:</b> (412) 249-3850	<b>Fax Number:</b> (412) 249-3855	
<b>E-mail address:</b> RANDY.SPENCER@CABOTOG.COM		
<b>Application Preparer:</b> RACHEL M. MELVILLE		<b>Title:</b> ENVIRONMENTAL ENGINEER
<b>Company:</b> Environmental Regulatory Service Group		
<b>Street or P.O. Box:</b> 2288 ROXALANA ROAD		
<b>City:</b> DUNBAR	<b>State:</b> WV	<b>Zip:</b> 25064
<b>Telephone Number:</b> (304) 746-4780	<b>Fax Number:</b> (304) 746-4783	
<b>E-mail address:</b> RACHEL@ERSGINC.COM		

**14. Facility Description**

List all processes, products, NAICS and SIC codes for normal operation, in order of priority. Also list any process, products, NAICS and SIC codes associated with any alternative operating scenarios if different from those listed for normal operation.

Process	Products	NAICS	SIC
Natural Gas Processing	Crude Petroleum and Natural Gas	211111	1311

**Provide a general description of operations.**

Natural gas enters the facility via pipeline where the wet gas is first compressed to a higher pressure. After compression, the wet gas is transferred to a triethylene glycol (TEG) dehydration unit, where excess water is removed from the natural gas stream. The TEG that is saturated with water is called rich TEG. The rich TEG is heated through the reboiler where the water is boiled off through the still vent. Once the water has been removed from the TEG it is called lean TEG. The lean TEG is re-circulated through the unit where the process begins again.

The reboiler has an exhaust stack where the by-products of natural gas combustion are vented. The TEG dehydration unit still vent emits volatile organic compounds and hazardous air pollutants depending on the concentration of those constituents in the processed wet gas.

- 15. Provide an **Area Map** showing plant location as **ATTACHMENT A**.
- 16. Provide a **Plot Plan(s)**, e.g. scaled map(s) and/or sketch(es) showing the location of the property on which the stationary source(s) is located as **ATTACHMENT B**. For instructions, refer to "Plot Plan - Guidelines."
- 17. Provide a detailed **Process Flow Diagram(s)** showing each process or emissions unit as **ATTACHMENT C**. Process Flow Diagrams should show all emission units, control equipment, emission points, and their relationships.

**Section 2: Applicable Requirements**

<b>18. Applicable Requirements Summary</b>	
Instructions: Mark all applicable requirements.	
<input checked="" type="checkbox"/> SIP	<input type="checkbox"/> FIP
<input checked="" type="checkbox"/> Minor source NSR (45CSR13)	<input type="checkbox"/> PSD (45CSR14)
<input checked="" type="checkbox"/> NESHAP (45CSR15)	<input type="checkbox"/> Nonattainment NSR (45CSR19)
<input type="checkbox"/> Section 111 NSPS	<input checked="" type="checkbox"/> Section 112(d) MACT standards
<input type="checkbox"/> Section 112(g) Case-by-case MACT	<input type="checkbox"/> 112(r) RMP
<input type="checkbox"/> Section 112(i) Early reduction of HAP	<input type="checkbox"/> Consumer/commercial prod. reqts., section 183(e)
<input type="checkbox"/> Section 129 Standards/Reqs.	<input type="checkbox"/> Stratospheric ozone (Title VI)
<input type="checkbox"/> Tank vessel reqt., section 183(f)	<input type="checkbox"/> Emissions cap 45CSR§30-2.6.1
<input type="checkbox"/> NAAQS, increments or visibility (temp. sources)	<input type="checkbox"/> 45CSR27 State enforceable only rule
<input checked="" type="checkbox"/> 45CSR4 State enforceable only rule	<input type="checkbox"/> Acid Rain (Title IV, 45CSR33)
<input type="checkbox"/> Emissions Trading and Banking (45CSR28)	<input type="checkbox"/> Compliance Assurance Monitoring (40CFR64)
<input type="checkbox"/> CAIR NO <sub>x</sub> Annual Trading Program (45CSR39)	<input type="checkbox"/> CAIR NO <sub>x</sub> Ozone Season Trading Program (45CSR40)
<input type="checkbox"/> CAIR SO <sub>2</sub> Trading Program (45CSR41)	<input checked="" type="checkbox"/> 40CFR63 Subpart ZZZZ

## 19. Non Applicability Determinations

List all requirements which the source has determined not applicable and for which a permit shield is requested. The listing shall also include the rule citation and the reason why the shield applies.

40CFR Part 82, Subpart F Ozone depleting substance. The purpose of this subpart is to reduce emissions of class I and class II refrigerants and their substitutes. The proposed glycol dehydration unit does not utilize class I and class II refrigerants and their substitutes.

40CFR Part 60, Subpart KKK Natural Gas Plant NSPS is not applicable because this station does not extract liquids from natural gas.

40CFR60, Subpart LLL- This facility does not employ a sweetening or sulfur recovery unit.

40CFR Part 60, Subpart Dc Small Generating Units NSPS is not applicable because the reboiler's heat input is less than 10 million Btu/hr.

40CFR63, Subpart DDDDD Boilers & Process Heaters located at Major Source of HAPs is not applicable because this facility is not a major source of HAPs.

40CFR Part 60, Subpart K, Ka, Kb Storage Vessel NSPS; There is no applicable requirement for tanks because there is no tank equal to or greater than 19,812.9 (75m<sup>3</sup>) gallons.

45CSR40 Control of Ozone Season Nitrogen Oxides Emissions is not applicable to the reboiler because this rule relates to large NO<sub>x</sub> SIP call engines that emitting more than one ton of NO<sub>x</sub> per average ozone season day in 1995.

40CFR63, Subpart HHH (*National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Storage and Transmission Facilities*) is not applicable since the facility is not a transmission facility.

45CSR2- Particulate matter from indirect fired heat exchangers. According to 45 CSR§2-11, the reboiler is exempt from sections 4, 5, 6, 8 and 9 of the rule, which includes MRR (Monitoring, recordkeeping and reporting) requirements, because the reboiler's heat input is less than ten (10) million B.T.U's per hour.

45CSR 10- SO<sub>2</sub> from indirect fired heat exchangers. Reboiler-It is a fuel burning unit with a maximum design heat input under 10mm Btu/hr., therefore exempt from 45CSR10 per 45CSR§10-10.1 Glycol dehydration unit- There is no SO<sub>2</sub> emissions according to R13-2808 and also it does not extract any sulfur from natural gas stream so it is not subject to 45CSR10.

45CSR14 PSD- This facility's potential emissions are below 250 tons per year. Therefore, this rule does not apply.

45CSR15- Emission standards for hazardous air pollutants pursuant to 40CFR Part 61. This facility is subject to the asbestos inspection and notification requirements. However, no asbestos is affected by the proposed changes.

Permit Shield

**19. Non Applicability Determinations (Continued) - Attach additional pages as necessary.**

**List all requirements which the source has determined not applicable and for which a permit shield is requested. The listing shall also include the rule citation and the reason why the shield applies.**

45CSR19- This facility is located in an attainment area for pollutants of concern. As of June 5, 2009 Kanawha county is in nonattainment for PM-2.5 per the USEPA Website.

40 CFR 64 – The proposed glycol dehydration unit does not have any add-on air pollution control devices; Therefore, in accordance with 40 C.F.R § 64.2(a), CAM is not applicable to the glycol dehydration unit.

45CSR21 (*To Prevent and Control Air Pollution from the Emission of Volatile Organic Compounds*) is not applicable because: Sections 27 and 28 of 45CSR21 are not applicable because all petroleum liquid storage tanks at the Horsemill station are below 40,000 gallons in capacity. Section 29 of 45CSR21 is not applicable because the Horsemill station is not engaged in the extraction of natural gas liquids from field gas, fractionation of mixed natural gas liquids to natural gas products, or both.

45CSR27 (*To Prevent and Control the Emissions of Toxic Air Pollutants*) is not applicable because: Natural gas is included as a petroleum product and contains less than 5% benzene by weight. 45 CSR § 27-2.4 exempts equipment "used in the production and distribution of petroleum products providing that such equipment does not produce or contact materials containing more than 5% benzene by weight."

Permit Shield

**20. Facility-Wide Applicable Requirements**

List all facility-wide applicable requirements. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements).

All Title V Boilerplate items are applicable plus the following additional requirements:

**3.8. Emergency Operating Scenario**

For emergency situations which interrupt the critical supply of natural gas to the public, and which pose a life threatening circumstance to the customer, the permittee is allowed to temporarily replace failed engine(s) as long as all of the following conditions are met:

- a. The replacement engine(s) is only allowed to operate until repair of the failed engine(s) is complete, but under no circumstance may the replacement engine(s) operate in excess of sixty (60) days;
  - b. Both the replacement engine(s) and the repaired failed engine(s) shall not operate at the same time with the exception of any necessary testing of the repaired engine(s) and this testing may not exceed five (5) hours;
  - c. Potential hourly emissions from the replacement engine(s) are less than or equal to the potential hourly emissions from the engine(s) being replaced;
  - d. Credible performance emission test data verifying the emission rates associated with the operation of the substitute engine shall be submitted to the Director within five (5) days;
  - e. The permittee must provide written notification to the Director within five (5) days of the replacement. This notification must contain:
    - i. Information to support the claim of life threatening circumstances to justify applicability of this emergency provision;
    - ii. Identification of the engine(s) being temporarily replaced;
    - iii. The design parameters of the replacement engine(s) including, but not limited to, the design horsepower and emission factors;
    - iv. Projected duration of the replacement engine(s); and
    - v. The appropriate certification by a responsible official.
- [45CSR§30-12.7]**

Permit Shield

For all facility-wide applicable requirements listed above, provide monitoring/testing / recordkeeping / reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

All Title V Boilerplate items pertaining to monitoring/testing/recordkeeping apply. No additional monitoring/testing/recordkeeping is used to demonstrate compliance.

Are you in compliance with all facility-wide applicable requirements?  Yes  No

If no, complete the Schedule of Compliance Form as ATTACHMENT F.

**20. Facility-Wide Applicable Requirements (Continued) - Attach additional pages as necessary.**

List all facility-wide applicable requirements. For each applicable requirement, include the rule citation and/or permit with the condition number.

N/A

Permit Shield

For all facility-wide applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

N/A

Are you in compliance with all facility-wide applicable requirements?  Yes  No

If no, complete the Schedule of Compliance Form as ATTACHMENT F.





**Section 3: Facility-Wide Emissions**

<b>23. Facility-Wide Emissions Summary [Tons per Year]</b>	
Criteria Pollutants	Potential Emissions
Carbon Monoxide (CO)	24.40
Nitrogen Oxides (NO <sub>x</sub> )	202.71
Lead (Pb)	-
Particulate Matter (PM <sub>2.5</sub> ) <sup>1</sup>	-
Particulate Matter (PM <sub>10</sub> ) <sup>1</sup>	2.16
Total Particulate Matter (TSP)	2.16
Sulfur Dioxide (SO <sub>2</sub> )	0.035
Volatile Organic Compounds (VOC)	18.84
Hazardous Air Pollutants <sup>2</sup>	Potential Emissions
Benzene	0.73
Ethylbenzene	0.0057
Toluene	0.62
Xylenes	0.21
n-Hexane	0.422
Formaldehyde	0.1457
Regulated Pollutants other than Criteria and HAP	Potential Emissions
<sup>1</sup> PM <sub>2.5</sub> and PM <sub>10</sub> are components of TSP. <sup>2</sup> For HAPs that are also considered PM or VOCs, emissions should be included in both the HAPs section and the Criteria Pollutants section.	

**Section 4: Insignificant Activities**

**24. Insignificant Activities (Check all that apply)**

<input checked="" type="checkbox"/>	1. Air compressors and pneumatically operated equipment, including hand tools.
<input checked="" type="checkbox"/>	2. Air contaminant detectors or recorders, combustion controllers or shutoffs.
<input checked="" type="checkbox"/>	3. Any consumer product used in the same manner as in normal consumer use, provided the use results in a duration and frequency of exposure which are not greater than those experienced by consumer, and which may include, but not be limited to, personal use items; janitorial cleaning supplies, office supplies and supplies to maintain copying equipment.
<input checked="" type="checkbox"/>	4. Bathroom/toilet vent emissions.
<input checked="" type="checkbox"/>	5. Batteries and battery charging stations, except at battery manufacturing plants.
<input type="checkbox"/>	6. Bench-scale laboratory equipment used for physical or chemical analysis, but not lab fume hoods or vents. Many lab fume hoods or vents might qualify for treatment as insignificant (depending on the applicable SIP) or be grouped together for purposes of description.
<input type="checkbox"/>	7. Blacksmith forges.
<input type="checkbox"/>	8. Boiler water treatment operations, not including cooling towers.
<input checked="" type="checkbox"/>	9. Brazing, soldering or welding equipment used as an auxiliary to the principal equipment at the source.
<input type="checkbox"/>	10. CO <sub>2</sub> lasers, used only on metals and other materials which do not emit HAP in the process.
<input type="checkbox"/>	11. Combustion emissions from propulsion of mobile sources, except for vessel emissions from Outer Continental Shelf sources.
<input checked="" type="checkbox"/>	12. Combustion units designed and used exclusively for comfort heating that use liquid petroleum gas or natural gas as fuel.
<input checked="" type="checkbox"/>	13. Comfort air conditioning or ventilation systems not used to remove air contaminants generated by or released from specific units of equipment.
<input type="checkbox"/>	14. Demineralized water tanks and demineralizer vents.
<input type="checkbox"/>	15. Drop hammers or hydraulic presses for forging or metalworking.
<input type="checkbox"/>	16. Electric or steam-heated drying ovens and autoclaves, but not the emissions from the articles or substances being processed in the ovens or autoclaves or the boilers delivering the steam.
<input type="checkbox"/>	17. Emergency (backup) electrical generators at residential locations.
<input type="checkbox"/>	18. Emergency road flares.
<input type="checkbox"/>	19. Emission units which do not have any applicable requirements and which emit criteria pollutants (CO, NO <sub>x</sub> , SO <sub>2</sub> , VOC and PM) into the atmosphere at a rate of less than 1 pound per hour and less than 10,000 pounds per year aggregate total for each criteria pollutant from all emission units.
	<p>Please specify all emission units for which this exemption applies along with the quantity of criteria pollutants emitted on an hourly and annual basis:</p> <p>_____</p>

**24. Insignificant Activities (Check all that apply)**

<input type="checkbox"/>	<p>20. Emission units which do not have any applicable requirements and which emit hazardous air pollutants into the atmosphere at a rate of less than 0.1 pounds per hour and less than 1,000 pounds per year aggregate total for all HAPs from all emission sources. This limitation cannot be used for any source which emits dioxin/furans nor for toxic air pollutants as per 45CSR27.</p> <p>Please specify all emission units for which this exemption applies along with the quantity of hazardous air pollutants emitted on an hourly and annual basis:</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>
<input type="checkbox"/>	<p>21. Environmental chambers not using hazardous air pollutant (HAP) gases.</p>
<input type="checkbox"/>	<p>22. Equipment on the premises of industrial and manufacturing operations used solely for the purpose of preparing food for human consumption.</p>
<input type="checkbox"/>	<p>23. Equipment used exclusively to slaughter animals, but not including other equipment at slaughterhouses, such as rendering cookers, boilers, heating plants, incinerators, and electrical power generating equipment.</p>
<input type="checkbox"/>	<p>24. Equipment used for quality control/assurance or inspection purposes, including sampling equipment used to withdraw materials for analysis.</p>
<input type="checkbox"/>	<p>25. Equipment used for surface coating, painting, dipping or spray operations, except those that will emit VOC or HAP.</p>
<input type="checkbox"/>	<p>26. Fire suppression systems.</p>
<input type="checkbox"/>	<p>27. Firefighting equipment and the equipment used to train firefighters.</p>
<input type="checkbox"/>	<p>28. Flares used solely to indicate danger to the public.</p>
<input type="checkbox"/>	<p>29. Fugitive emission related to movement of passenger vehicle provided the emissions are not counted for applicability purposes and any required fugitive dust control plan or its equivalent is submitted.</p>
<input type="checkbox"/>	<p>30. Hand-held applicator equipment for hot melt adhesives with no VOC in the adhesive formulation.</p>
<input type="checkbox"/>	<p>31. Hand-held equipment for buffing, polishing, cutting, drilling, sawing, grinding, turning or machining wood, metal or plastic.</p>
<input type="checkbox"/>	<p>32. Humidity chambers.</p>
<input type="checkbox"/>	<p>33. Hydraulic and hydrostatic testing equipment.</p>
<input type="checkbox"/>	<p>34. Indoor or outdoor kerosene heaters.</p>
<input type="checkbox"/>	<p>35. Internal combustion engines used for landscaping purposes.</p>
<input type="checkbox"/>	<p>36. Laser trimmers using dust collection to prevent fugitive emissions.</p>
<input type="checkbox"/>	<p>37. Laundry activities, except for dry-cleaning and steam boilers.</p>
<input type="checkbox"/>	<p>38. Natural gas pressure regulator vents, excluding venting at oil and gas production facilities.</p>
<input type="checkbox"/>	<p>39. Oxygen scavenging (de-aeration) of water.</p>
<input type="checkbox"/>	<p>40. Ozone generators.</p>
<input checked="" type="checkbox"/>	<p>41. Plant maintenance and upkeep activities (e.g., grounds-keeping, general repairs, cleaning, painting, welding, plumbing, re-tarring roofs, installing insulation, and paving parking lots) provided these activities are not conducted as part of a manufacturing process, are not related to the source's primary business activity, and not otherwise triggering a permit modification. (Cleaning and painting activities qualify if they are not subject to VOC or HAP control requirements. Asphalt batch plant</p>

**24. Insignificant Activities (Check all that apply)**

	owners/operators must still get a permit if otherwise requested.)
<input type="checkbox"/>	42. Portable electrical generators that can be moved by hand from one location to another. "Moved by Hand" means that it can be moved without the assistance of any motorized or non-motorized vehicle, conveyance, or device.
<input type="checkbox"/>	43. Process water filtration systems and demineralizers.
<input type="checkbox"/>	44. Repair or maintenance shop activities not related to the source's primary business activity, not including emissions from surface coating or de-greasing (solvent metal cleaning) activities, and not otherwise triggering a permit modification.
<input type="checkbox"/>	45. Repairs or maintenance where no structural repairs are made and where no new air pollutant emitting facilities are installed or modified.
<input type="checkbox"/>	46. Routing calibration and maintenance of laboratory equipment or other analytical instruments.
<input type="checkbox"/>	47. Salt baths using nonvolatile salts that do not result in emissions of any regulated air pollutants. Shock chambers.
<input type="checkbox"/>	48. Shock chambers.
<input type="checkbox"/>	49. Solar simulators.
<input type="checkbox"/>	50. Space heaters operating by direct heat transfer.
<input type="checkbox"/>	51. Steam cleaning operations.
<input type="checkbox"/>	52. Steam leaks.
<input type="checkbox"/>	53. Steam sterilizers.
<input type="checkbox"/>	54. Steam vents and safety relief valves.
<input type="checkbox"/>	55. Storage tanks, reservoirs, and pumping and handling equipment of any size containing soaps, vegetable oil, grease, animal fat, and nonvolatile aqueous salt solutions, provided appropriate lids and covers are utilized.
<input type="checkbox"/>	56. Storage tanks, vessels, and containers holding or storing liquid substances that will not emit any VOC or HAP. Exemptions for storage tanks containing petroleum liquids or other volatile organic liquids should be based on size limits such as storage tank capacity and vapor pressure of liquids stored and are not appropriate for this list.
<input type="checkbox"/>	57. Such other sources or activities as the Director may determine.
<input checked="" type="checkbox"/>	58. Tobacco smoking rooms and areas.
<input type="checkbox"/>	59. Vents from continuous emissions monitors and other analyzers.

**Section 5: Emission Units, Control Devices, and Emission Points**

**25. Equipment Table**

Fill out the **Title V Equipment Table** and provide it as **ATTACHMENT D**.

**26. Emission Units**

For each emission unit listed in the **Title V Equipment Table**, fill out and provide an **Emission Unit Form** as **ATTACHMENT E**.

For each emission unit not in compliance with an applicable requirement, fill out a **Schedule of Compliance Form** as **ATTACHMENT F**.

**27. Control Devices**

For each control device listed in the **Title V Equipment Table**, fill out and provide an **Air Pollution Control Device Form** as **ATTACHMENT G**.

For any control device that is required on an emission unit in order to meet a standard or limitation for which the potential pre-control device emissions of an applicable regulated air pollutant is greater than or equal to the Title V Major Source Threshold Level, refer to the **Compliance Assurance Monitoring (CAM) Form(s)** for CAM applicability. Fill out and provide these forms, if applicable, for each Pollutant Specific Emission Unit (PSEU) as **ATTACHMENT H**.

**Section 6: Certification of Information**

**28. Certification of Truth, Accuracy and Completeness and Certification of Compliance**

*Note: This Certification must be signed by a responsible official. The original, signed in blue ink, must be submitted with the application. Applications without an original signed certification will be considered as incomplete.*

**a. Certification of Truth, Accuracy and Completeness**

I certify that I am a responsible official (as defined at 45CSR§30-2.38) and am accordingly authorized to make this submission on behalf of the owners or operators of the source described in this document and its attachments. I certify under penalty of law that I have personally examined and am familiar with the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine and/or imprisonment.

**b. Compliance Certification**

Except for requirements identified in the Title V Application for which compliance is not achieved, I, the undersigned hereby certify that, based on information and belief formed after reasonable inquiry, all air contaminant sources identified in this application are in compliance with all applicable requirements.

**Responsible official (type or print)**

Name: Randy Spencer

Title: Manager, Safety and Environmental

**Responsible official's signature:**

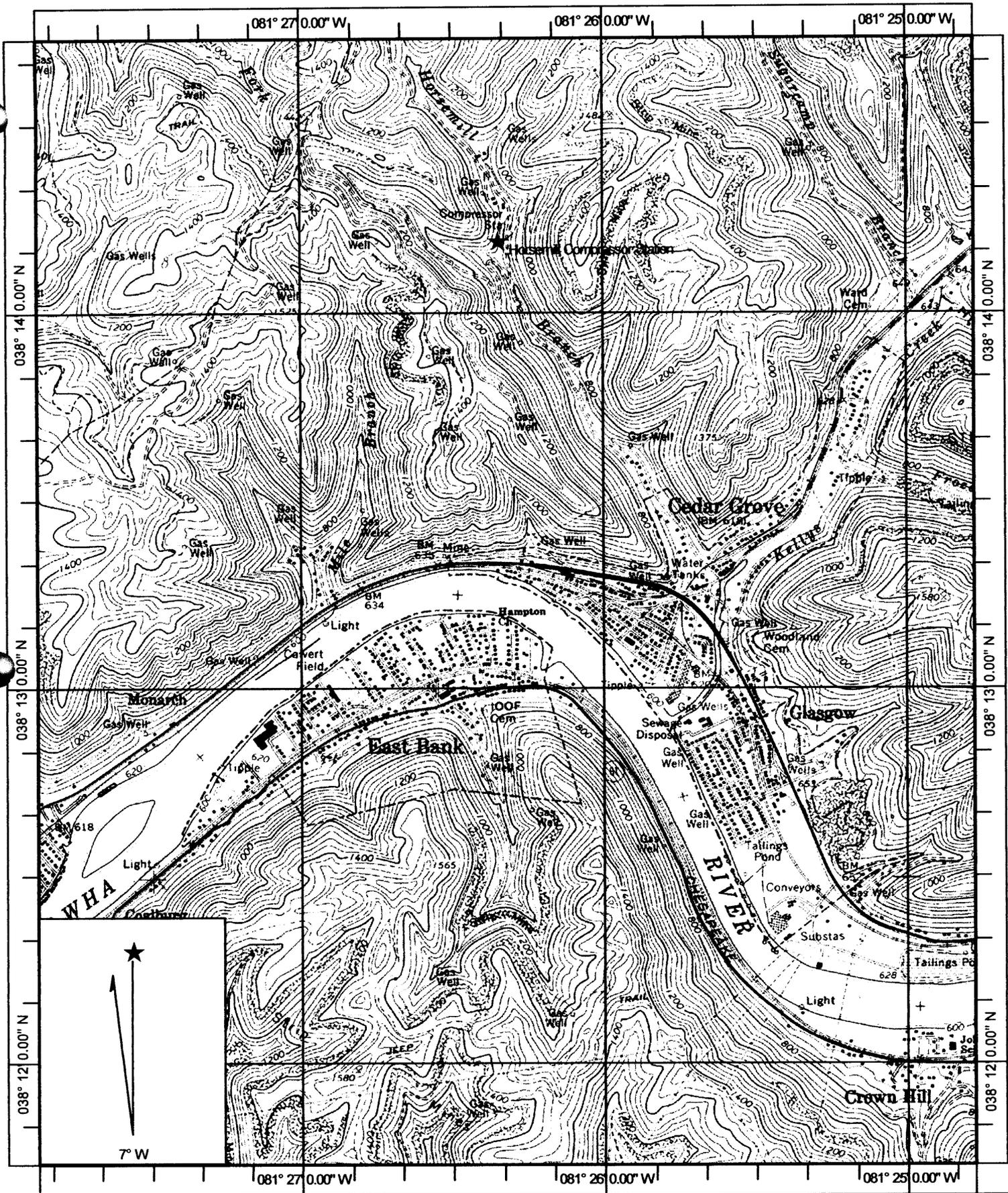
Signature: Randy Spencer Signature Date: 5-31-11  
(Must be signed and dated in blue ink)

**Note: Please check all applicable attachments included with this permit application:**

<input checked="" type="checkbox"/>	ATTACHMENT A: Area Map
<input checked="" type="checkbox"/>	ATTACHMENT B: Plot Plan(s)
<input checked="" type="checkbox"/>	ATTACHMENT C: Process Flow Diagram(s)
<input checked="" type="checkbox"/>	ATTACHMENT D: Equipment Table
<input checked="" type="checkbox"/>	ATTACHMENT E: Emission Unit Form(s)
<input type="checkbox"/>	ATTACHMENT F: Schedule of Compliance Form(s)
<input type="checkbox"/>	ATTACHMENT G: Air Pollution Control Device Form(s)
<input type="checkbox"/>	ATTACHMENT H: Compliance Assurance Monitoring (CAM) Form(s)

**All of the required forms and additional information can be found and downloaded from, the DEP website at [www.dep.wy.gov/dag](http://www.dep.wy.gov/dag), requested by phone (304) 928-0475, and/or obtained through the mail.**

**ATTACHMENT A**  
**AREA MAP**



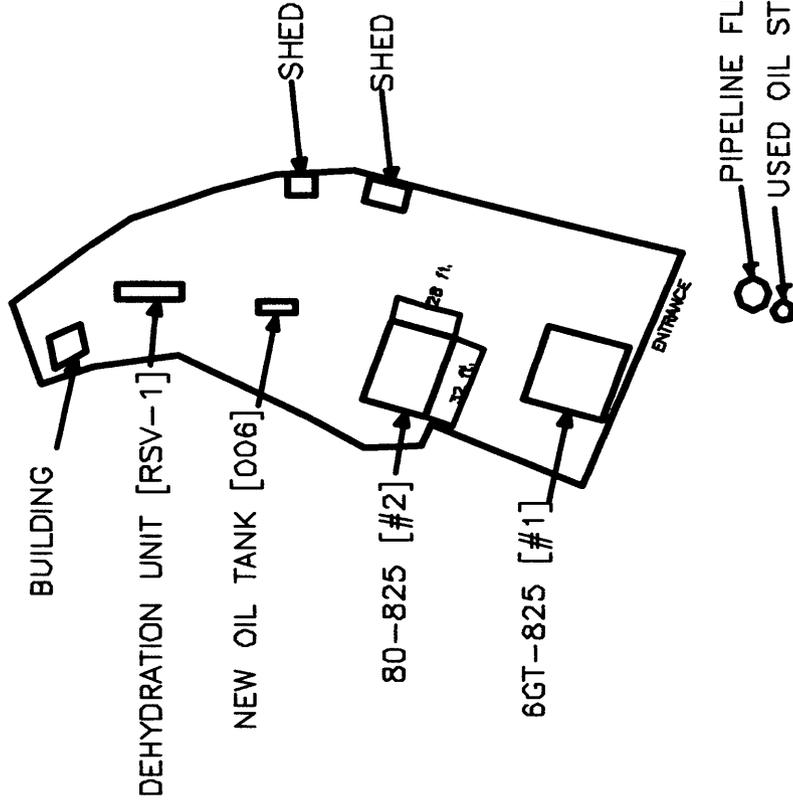
Name: CEDAR GROVE  
 Date: 5/31/2011  
 Scale: 1 inch equals 2000 feet

Location: 038° 13' 13.8" N 081° 26' 19.7" W  
 Caption: Horsemill Compressor Station  
 Glasgow, WV

**ATTACHMENT B**  
**PLOT PLAN(S)**



UTM REFERENCE  
EASTING 481.81 KM  
NORTHING 4,232.07 KM  
ZONE 17  
BASE ELEVATION ~954 FT.



DWN. RMM	CHKD. NULL
APPD. NULL	DATE 6/02/11
SCALE: SEE ABOVE	
DRAWING NUMBER	
ERSG 11-101-23 REV	
SHT. NO. 1 OF 1	

HORSEMILL COMPRESSOR STATION  
PLOT PLAN

CRANBERRY PIPELINE CORPORATION  
GLASGOW, WEST VIRGINIA

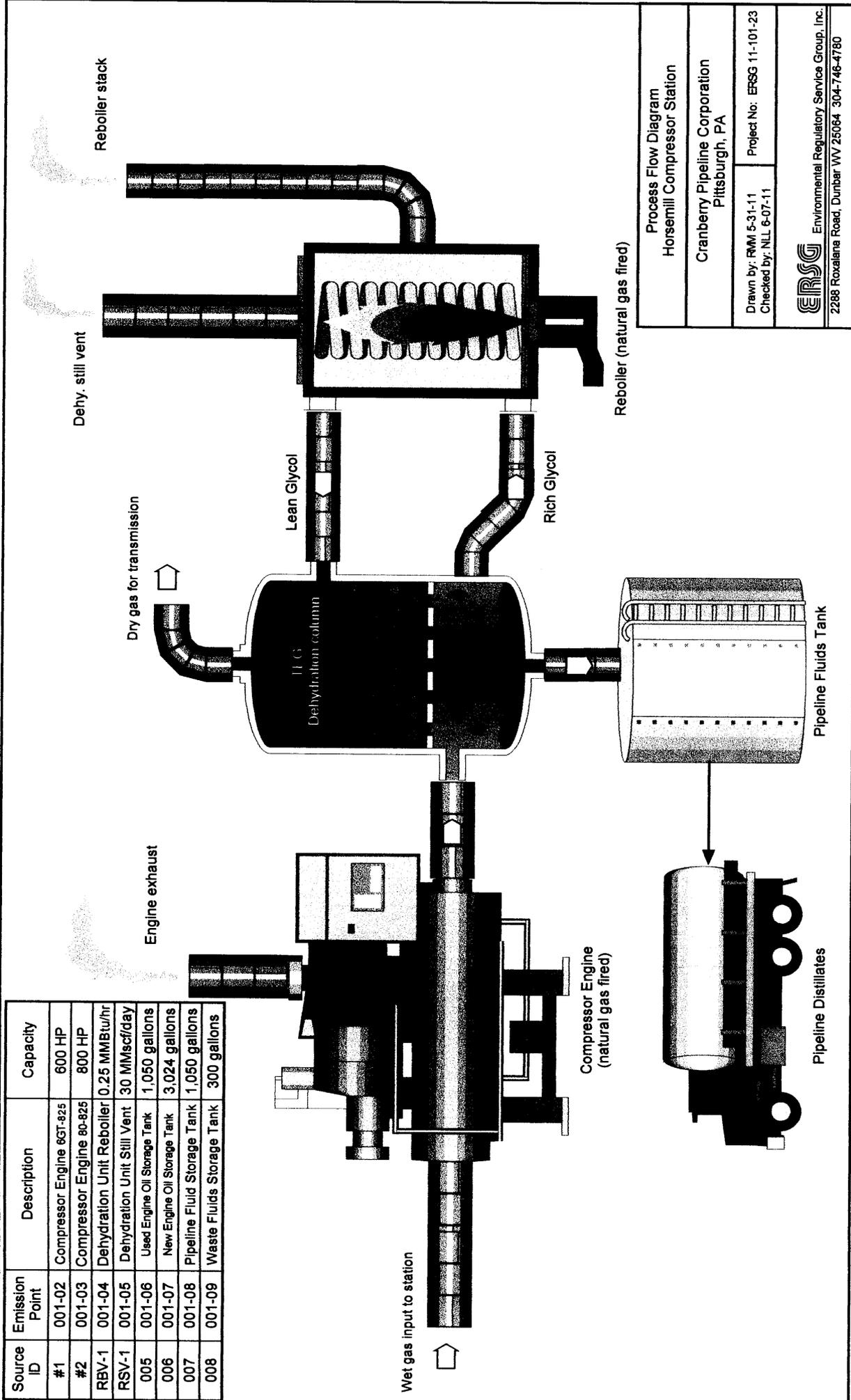
ENVIRONMENTAL REGULATORY SERVICE GROUP, INC.

288 ROYALANA ROAD  
DUNBAR, WV 25864

PHONE: (304) 748-4780  
FAX: (304) 748-4783

**ATTACHMENT C**  
**PROCESS FLOW DIAGRAM(S)**

Source ID	Emission Point	Description	Capacity
#1	001-02	Compressor Engine 63T-925	600 HP
#2	001-03	Compressor Engine 80-925	800 HP
RBV-1	001-04	Dehydration Unit Reboiler	0.25 MMBtu/hr
RSV-1	001-05	Dehydration Unit Still Vent	30 MMscf/day
005	001-06	Used Engine Oil Storage Tank	1,050 gallons
006	001-07	New Engine Oil Storage Tank	3,024 gallons
007	001-08	Pipeline Fluid Storage Tank	1,050 gallons
008	001-09	Waste Fluids Storage Tank	300 gallons



Process Flow Diagram  
Horsemill Compressor Station  
Cranberry Pipeline Corporation  
Pittsburgh, PA

Drawn by: RMM 5-31-11  
Checked by: NLL 6-07-11  
Project No: ERSG 11-101-23

ERSG Environmental Regulatory Services Group, Inc.  
2288 Roxalana Road, Durbar WV 25064 304-746-4780

**ATTACHMENT D**  
**EQUIPMENT TABLE**

**ATTACHMENT D - Title V Equipment Table**  
 (includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

Emission Point ID <sup>1</sup>	Control Device <sup>1</sup>	Emission Unit ID <sup>1</sup>	Emission Unit Description	Design Capacity	Year Installed/Modified
001-02	N/A	#1*	Reciprocating Engine/ Integral Compressor; White Superior 6GT825; Serial #274469	600 HP	1983
001-03	N/A	#2*	Reciprocating Engine/ Integral Compressor; White Superior 80-825; Serial #20812	800 HP	1985
001-06	N/A	005	Used Engine Oil Storage Tank	1050 Gallons	1986
001-07	N/A	006	New Engine Oil Storage Tank	3024 Gallons	1986
001-08	N/A	007	Pipeline Fluids Storage Tank	1050 Gallons	1986
001-09	N/A	008	Waste Fluids Storage Tank	300 Gallons	1986
001-04	None.	RBV-1	NATCO Model 90-200 Glycol Dehydration Unit Reboiler Vent	0.25 MMBtu/hr	2009
001-05	None.	RSV-1	NATCO Model 90-200 Glycol Dehydration Unit Regenerator Still Vent	30 mmscf/day	2009

<sup>1</sup>For 45CSR13 permitted sources, the numbering system used for the emission points, control devices, and emission units should be consistent with the numbering system used in the 45CSR13 permit. For grandfathered sources, the numbering system should be consistent with registrations or emissions inventory previously submitted to DAQ. For emission points, control devices, and emissions units which have not been previously labeled, use the following 45CSR13 numbering system: 1S, 2S, 3S,... or other appropriate description for emission units; 1C, 2C, 3C,... or other appropriate designation for control devices; 1E, 2E, 3E, ... or other appropriate designation for emission points.

\*This equipment burns pipeline quality natural gas only.

**ATTACHMENT E**  
**EMISSION UNIT FORM(S)**

## ATTACHMENT E - Emission Unit Form

**Emission Unit Description**

<b>Emission unit ID number:</b> #1	<b>Emission unit name:</b> White Superior Reciprocating Engine	<b>List any control devices associated with this emission unit:</b> None.
---------------------------------------	---	---

**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
Reciprocating Engine/ Integral Compressor; White Superior 6GT825; Serial #274469

<b>Manufacturer:</b> White Superior	<b>Model number:</b> 6GT825	<b>Serial number:</b> #274469
<b>Construction date:</b> N/A	<b>Installation date:</b> 1983	<b>Modification date(s):</b> N/A

**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):** 600 HP

<b>Maximum Hourly Throughput:</b> N/A	<b>Maximum Annual Throughput:</b> N/A	<b>Maximum Operating Schedule:</b> twenty-four (24) hours per day, seven (7) days per week, fifty-two (52) weeks per year
--	--	--

**Fuel Usage Data (fill out all applicable fields)**

<b>Does this emission unit combust fuel?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>If yes, is it?</b>  <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired
--	---

<b>Maximum design heat input and/or maximum horsepower rating:</b>  Maximum horsepower rating: 600 HP	<b>Type and Btu/hr rating of burners:</b>  N/A
---	--

**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**

This equipment combusts pipeline quality natural gas only.  
 Maximum Hourly Fuel Usage: N/A  
 Maximum Annual Fuel Usage: N/A

**Describe each fuel expected to be used during the term of the permit.**

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Pipeline Quality Natural Gas	2,000 grains/10 <sup>6</sup> scf	N/A	1050 Btu/scf

<b>Emissions Data</b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	2.38	10.4194
Nitrogen Oxides (NO <sub>x</sub> )	19.82	86.82
Lead (Pb)	-	-
Particulate Matter (PM <sub>2.5</sub> )	-	-
Particulate Matter (PM <sub>10</sub> )	0.21	0.92
Total Particulate Matter (TSP)	0.21	0.92
Sulfur Dioxide (SO <sub>2</sub> )	0.01	0.01
Volatile Organic Compounds (VOC)	0.26	1.16
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Total HAP's	0.35	1.52
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
N/A	N/A	N/A
<p><b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b></p> <p>HAPCalc 3.0</p>		

**Applicable Requirements**

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

40 CFR63.6603 - Table 2d Non-emergency, non-black start 4SRB stationary RICE >500 HP

Limit concentration of formaldehyde in the stationary RICE exhaust to 2.7 ppmvd at 15 percent O<sub>2</sub>; or b. Reduce formaldehyde emissions by 76 percent or more.

40 CFR63. 63.6603 Table 1b & 2b Non-emergency, non-black start 4SRB stationary RICE >500 HP

14SRB stationary RICE complying with the requirement to reduce formaldehyde emissions by 76 percent or more (or by 75 percent or more, if applicable) and using NSCR; or. 4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O<sub>2</sub> and using NSCR; or 4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 2.7 ppmvd or less at 15 percent O<sub>2</sub> and using NSCR. You must meet the following operating limitation . . . a. maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst measured during the initial performance test and b. maintain the temperature of your stationary RICE exhaust so the catalyst inlet temperature is greater than or equal to 750 °F and less than or equal to 1250 °F.

40 CFR63. 63.6612 Non-emergency, non-black start 4SRB stationary RICE >500 HP

(a) You must conduct any initial performance test or other initial compliance demonstration according to Tables 4 and 5 to this subpart that apply to you within 180 days after the compliance date that is specified for your stationary RICE in §63.6595 and according to the provisions in §63.7(a)(2).

40 CFR63. 63.6620 Table 3, 4, & 5 Non-emergency, non-black start 4SRB stationary RICE >500 HP

For existing non-emergency, non-black start 4SLB and 4SRB stationary RICE located at an area source of HAP emissions with a brake horsepower >500 that are operated more than 24 hours per calendar year that are not limited use stationary RICE Complying with the requirement to Limit or reduce CO or formaldehyde emissions Conduct subsequent performance tests every 8,760 hrs. or 3 years, whichever comes first you must Conduct subsequent performance tests every 8,760 hrs. or 3 years, whichever comes first.

See Table 4 for standards for the performance Testing

See Table 5 for Initial Compliance With Emission Limitations and Operating Limitations.

\_\_\_ Permit Shield

**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

40 CFR63.6603 - Table 2d Non-emergency, non-black start 4SRB stationary RICE >500 HP Limit concentration of formaldehyde: The facility proposes to conduct initial testing to determine if a control device is needed. Subsequent testing will be performed every 8,760 hours or every 3 years.

All other monitoring/testing/recordkeeping/reporting will be determined by the results of the initial testing.

Are you in compliance with all applicable requirements for this emission unit?  Yes  No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

## ATTACHMENT E - Emission Unit Form

### Emission Unit Description

<b>Emission unit ID number:</b> #2	<b>Emission unit name:</b> White Superior Reciprocating Engine	<b>List any control devices associated with this emission unit:</b> None.
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
Reciprocating Engine/ Integral Compressor; White Superior 80-825; Serial #20812

<b>Manufacturer:</b> White Superior	<b>Model number:</b> 80-825	<b>Serial number:</b> #20812
<b>Construction date:</b> N/A	<b>Installation date:</b> 1985	<b>Modification date(s):</b> N/A

**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):** 800 HP

<b>Maximum Hourly Throughput:</b> N/A	<b>Maximum Annual Throughput:</b> N/A	<b>Maximum Operating Schedule:</b> twenty-four (24) hours per day, seven (7) days per week, fifty-two (52) weeks per year
--	--	--

### Fuel Usage Data (fill out all applicable fields)

<b>Does this emission unit combust fuel?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>If yes, is it?</b> <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired
--	---

<b>Maximum design heat input and/or maximum horsepower rating:</b>  Maximum horsepower rating: 600 HP	<b>Type and Btu/hr rating of burners:</b>  N/A
---	--

**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**

This equipment combusts pipeline quality natural gas only.  
Maximum Hourly Fuel Usage: N/A  
Maximum Annual Fuel Usage: N/A

### Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Pipeline Quality Natural Gas	2,000 grains/10 <sup>6</sup> scf	N/A	1050 Btu/scf

**Emissions Data**

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	3.17	13.89
Nitrogen Oxides (NO <sub>x</sub> )	26.43	115.77
Lead (Pb)	-	-
Particulate Matter (PM <sub>2.5</sub> )	-	-
Particulate Matter (PM <sub>10</sub> )	0.28	1.23
Total Particulate Matter (TSP)	0.28	1.23
Sulfur Dioxide (SO <sub>2</sub> )	0.00	0.015
Volatile Organic Compounds (VOC)	0.35	1.54
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Total HAP's	0.046	2.02
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
N/A	N/A	N/A

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

HAPCalc 3.0

**Applicable Requirements**

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

40 CFR63.6603 - Table 2d Non-emergency, non-black start 4SRB stationary RICE >500 HP

Limit concentration of formaldehyde in the stationary RICE exhaust to 2.7 ppmvd at 15 percent O<sub>2</sub>; or b. Reduce formaldehyde emissions by 76 percent or more.

40 CFR63. 63.6603 Table 1b & 2b Non-emergency, non-black start 4SRB stationary RICE >500 HP

14SRB stationary RICE complying with the requirement to reduce formaldehyde emissions by 76 percent or more (or by 75 percent or more, if applicable) and using NSCR; or. 4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O<sub>2</sub> and using NSCR; or 4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 2.7 ppmvd or less at 15 percent O<sub>2</sub> and using NSCR. You must meet the following operating limitation . . . a. maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst measured during the initial performance test and b. maintain the temperature of your stationary RICE exhaust so the catalyst inlet temperature is greater than or equal to 750 °F and less than or equal to 1250 °F.

40 CFR63. 63.6612 Non-emergency, non-black start 4SRB stationary RICE >500 HP

(a) You must conduct any initial performance test or other initial compliance demonstration according to Tables 4 and 5 to this subpart that apply to you within 180 days after the compliance date that is specified for your stationary RICE in §63.6595 and according to the provisions in §63.7(a)(2).

40 CFR63. 63.6620 Table 3, 4, & 5 Non-emergency, non-black start 4SRB stationary RICE >500 HP

For existing non-emergency, non-black start 4SLB and 4SRB stationary RICE located at an area source of HAP emissions with a brake horsepower >500 that are operated more than 24 hours per calendar year that are not limited use stationary RICE Complying with the requirement to Limit or reduce CO or formaldehyde emissions Conduct subsequent performance tests every 8,760 hrs. or 3 years, whichever comes first you must Conduct subsequent performance tests every 8,760 hrs. or 3 years, whichever comes first.

See Table 4 for standards for the performance Testing

See Table 5 for Initial Compliance With Emission Limitations and Operating Limitations.

\_\_\_\_ Permit Shield

**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

40 CFR63.6603 - Table 2d Non-emergency, non-black start 4SRB stationary RICE >500 HP Limit concentration of formaldehyde: The facility proposes to conduct initial testing to determine if a control device is needed. Subsequent testing will be performed every 8,760 hours or every 3 years.

All other monitoring/testing/recordkeeping/reporting will be determined by the results of the initial testing.

Are you in compliance with all applicable requirements for this emission unit?  Yes  No

If no, complete the Schedule of Compliance Form as ATTACHMENT F.

## ATTACHMENT E - Emission Unit Form

<b>Emission Unit Description</b>			
Emission unit ID number: 005	Emission unit name: Used Engine Oil Storage Tank	List any control devices associated with this emission unit: None.	
Provide a description of the emission unit (type, method of operation, design parameters, etc.):  1050 gallon Used Engine Oil Storage Tank, 4.5 foot diameter, 5250 gall./yr throughput.			
Manufacturer: N/A	Model number: N/A	Serial number: N/A	
Construction date: N/A	Installation date: 1986	Modification date(s): N/A	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 1050 gallons			
Maximum Hourly Throughput: N/A	Maximum Annual Throughput: N/A	Maximum Operating Schedule: twenty-four (24) hours per day, seven (7) days per week, fifty-two (52) weeks per year	
<b>Fuel Usage Data (fill out all applicable fields)</b>			
Does this emission unit combust fuel? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		If yes, is it?  <input type="checkbox"/> Indirect Fired <input type="checkbox"/> Direct Fired	
Maximum design heat input and/or maximum horsepower rating:  N/A		Type and Btu/hr rating of burners:  N/A	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.  N/A			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A
<b>Emissions Data</b>			
Criteria Pollutants	Potential Emissions		
	PPH	TPY	
Carbon Monoxide (CO)	-	-	

Nitrogen Oxides (NO <sub>x</sub> )	-	-
Lead (Pb)	-	-
Particulate Matter (PM <sub>2.5</sub> )	-	-
Particulate Matter (PM <sub>10</sub> )	-	-
Total Particulate Matter (TSP)	-	-
Sulfur Dioxide (SO <sub>2</sub> )	-	-
Volatile Organic Compounds (VOC)	0.0091	0.04
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
N/A	N/A	N/A
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
N/A	N/A	N/A
<p><b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b></p> <p>Tanks 4.0</p>		

***Applicable Requirements***

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

There is no applicable requirement for tanks because there is no tank equal to or greater than 20,000 gallons located at Horsemill Compressor Station.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (*Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.*)

N/A

Are you in compliance with all applicable requirements for this emission unit?  Yes  No

If no, complete the Schedule of Compliance Form as ATTACHMENT F.

## ATTACHMENT E - Emission Unit Form

**Emission Unit Description**

<b>Emission unit ID number:</b> 006	<b>Emission unit name:</b> New Engine Oil Storage Tank	<b>List any control devices associated with this emission unit:</b> None.
--	---	---

**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**

3024 Gallon New Engine Oil Storage Tank. 6.4 foot diameter, 15120 gall./yr throughput.

<b>Manufacturer:</b> N/A	<b>Model number:</b> N/A	<b>Serial number:</b> N/A
<b>Construction date:</b> N/A	<b>Installation date:</b> 1986	<b>Modification date(s):</b> N/A

**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):** 3024 gallons

<b>Maximum Hourly Throughput:</b> N/A	<b>Maximum Annual Throughput:</b> N/A	<b>Maximum Operating Schedule:</b> twenty-four (24) hours per day, seven (7) days per week, fifty-two (52) weeks per year
--	--	--

**Fuel Usage Data (fill out all applicable fields)**

<b>Does this emission unit combust fuel?</b> ___ Yes <input checked="" type="checkbox"/> No	<b>If yes, is it?</b> ___ Indirect Fired ___ Direct Fired
---	--

<b>Maximum design heat input and/or maximum horsepower rating:</b> N/A	<b>Type and Btu/hr rating of burners:</b> N/A
---	--

**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**

N/A

**Describe each fuel expected to be used during the term of the permit.**

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

**Emissions Data**

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	-	-

Nitrogen Oxides (NO <sub>x</sub> )	-	-
Lead (Pb)	-	-
Particulate Matter (PM <sub>2.5</sub> )	-	-
Particulate Matter (PM <sub>10</sub> )	-	-
Total Particulate Matter (TSP)	-	-
Sulfur Dioxide (SO <sub>2</sub> )	-	-
Volatile Organic Compounds (VOC)	0.053	0.23
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
N/A	N/A	N/A
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
N/A	N/A	N/A
<p><b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b></p> <p>Tanks 4.0</p>		

***Applicable Requirements***

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

There is no applicable requirement for tanks because there is no tank equal to or greater than 20,000 gallons located at Horsemill Compressor Station.

\_\_\_ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (*Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.*)

N/A

Are you in compliance with all applicable requirements for this emission unit?  Yes  No

If no, complete the Schedule of Compliance Form as ATTACHMENT F.

## ATTACHMENT E - Emission Unit Form

**Emission Unit Description**

<b>Emission unit ID number:</b> 007	<b>Emission unit name:</b> Pipeline Fluids Storage Tank	<b>List any control devices associated with this emission unit:</b> None.
--	--	---

**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**

1050 Gallon Pipeline Fluids Storage Tank. 5 foot diameter, 5250 gall./yr throughput.

<b>Manufacturer:</b> N/A	<b>Model number:</b> N/A	<b>Serial number:</b> N/A
<b>Construction date:</b> N/A	<b>Installation date:</b> 1986	<b>Modification date(s):</b> N/A

**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):** 1050 gallons

<b>Maximum Hourly Throughput:</b> N/A	<b>Maximum Annual Throughput:</b> N/A	<b>Maximum Operating Schedule:</b> twenty-four (24) hours per day, seven (7) days per week, fifty-two (52) weeks per year
--	--	--

**Fuel Usage Data (fill out all applicable fields)**

<b>Does this emission unit combust fuel?</b> ___ Yes <input checked="" type="checkbox"/> No	<b>If yes, is it?</b> ___ Indirect Fired ___ Direct Fired
---	--

<b>Maximum design heat input and/or maximum horsepower rating:</b> N/A	<b>Type and Btu/hr rating of burners:</b> N/A
---	--

**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**

N/A

**Describe each fuel expected to be used during the term of the permit.**

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

**Emissions Data**

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	-	-

Nitrogen Oxides (NO <sub>x</sub> )	-	-
Lead (Pb)	-	-
Particulate Matter (PM <sub>2.5</sub> )	-	-
Particulate Matter (PM <sub>10</sub> )	-	-
Total Particulate Matter (TSP)	-	-
Sulfur Dioxide (SO <sub>2</sub> )	-	-
Volatile Organic Compounds (VOC)	0.0091	0.04
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
N/A	N/A	N/A
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
N/A	N/A	N/A
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Tanks 4.0</p>		

**Applicable Requirements**

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

There is no applicable requirement for tanks because there is no tank equal to or greater than 20,000 gallons located at Horsemill Compressor Station.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

N/A

Are you in compliance with all applicable requirements for this emission unit?  Yes  No

If no, complete the Schedule of Compliance Form as ATTACHMENT F.

## ATTACHMENT E - Emission Unit Form

**Emission Unit Description**

<b>Emission unit ID number:</b> 008	<b>Emission unit name:</b> Waste Fluids Storage Tank	<b>List any control devices associated with this emission unit:</b> None.
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**

300 Gallon Pipeline Fluids Storage Tank. 3 foot diameter, 1500 gall./yr throughput.

<b>Manufacturer:</b> N/A	<b>Model number:</b> N/A	<b>Serial number:</b> N/A
<b>Construction date:</b> N/A	<b>Installation date:</b> 1986	<b>Modification date(s):</b> N/A

**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):** 300 gallons

<b>Maximum Hourly Throughput:</b> N/A	<b>Maximum Annual Throughput:</b> N/A	<b>Maximum Operating Schedule:</b> twenty-four (24) hours per day, seven (7) days per week, fifty-two (52) weeks per year
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**Fuel Usage Data (fill out all applicable fields)**

<b>Does this emission unit combust fuel?</b> ___ Yes <input checked="" type="checkbox"/> No	<b>If yes, is it?</b> ___ Indirect Fired ___ Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b> N/A	<b>Type and Btu/hr rating of burners:</b> N/A
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**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**

N/A

**Describe each fuel expected to be used during the term of the permit.**

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

**Emissions Data**

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	-	-

Nitrogen Oxides (NO <sub>x</sub> )	-	-
Lead (Pb)	-	-
Particulate Matter (PM <sub>2.5</sub> )	-	-
Particulate Matter (PM <sub>10</sub> )	-	-
Total Particulate Matter (TSP)	-	-
Sulfur Dioxide (SO <sub>2</sub> )	-	-
Volatile Organic Compounds (VOC)	2.28 E-4	0.001
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
N/A	N/A	N/A
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
N/A	N/A	N/A
<p><b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b></p> <p>Tanks 4.0</p>		

***Applicable Requirements***

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

There is no applicable requirement for tanks because there is no tank equal to or greater than 20,000 gallons located at Horsemill Compressor Station.

\_\_\_ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (*Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.*)

N/A

Are you in compliance with all applicable requirements for this emission unit?  Yes  No

If no, complete the Schedule of Compliance Form as ATTACHMENT F.

## ATTACHMENT E - Emission Unit Form

### *Emission Unit Description*

<b>Emission unit ID number:</b> RBV-1	<b>Emission unit name:</b> Reboiler	<b>List any control devices associated with this emission unit:</b> N/A
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**

0.25 MMBtu/hr Heat Input

<b>Manufacturer:</b> NATCO	<b>Model number:</b> 90-200	<b>Serial number:</b> N/A
<b>Construction date:</b> N/A	<b>Installation date:</b> 2009	<b>Modification date(s):</b> N/A

**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):** 0.25 MMBtu/hr Heat Input  
30 mmscf/day throughput limit

<b>Maximum Hourly Throughput:</b> 1.25 MMft <sup>3</sup> /hr	<b>Maximum Annual Throughput:</b> 10,950 MMscf/yr	<b>Maximum Operating Schedule:</b> 8,760 hrs/yr
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### *Fuel Usage Data (fill out all applicable fields)*

<b>Does this emission unit combust fuel?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>If yes, is it?</b>  <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b> N/A	<b>Type and Btu/hr rating of burners:</b> 0.25 MMBtu/hr
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**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**

Pipeline Quality Natural Gas

**Describe each fuel expected to be used during the term of the permit.**

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Pipeline Quality Natural Gas	2,000 grains/10 <sup>6</sup> scf	NA	1,000

### *Emissions Data*

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	0.02	0.09
Nitrogen Oxides (NO <sub>x</sub> )	0.03	0.11
Lead (Pb)	-	-

Particulate Matter (PM <sub>2.5</sub> )	-	-
Particulate Matter (PM <sub>10</sub> )	0.01	0.01
Total Particulate Matter (TSP)	0.01	0.01
Sulfur Dioxide (SO <sub>2</sub> )	0.01	0.01
Volatile Organic Compounds (VOC)	0.01	0.01
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
	-	-
Regulated Pollutants other than Criteria and HAP	-	
	PPH	TPY
N/A	N/A	N/A
List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).		
HAP-CALC 3.01		

***Applicable Requirements***

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

5.1.1. Maximum Throughput Limitation. The maximum wet natural gas throughput to the glycol dehydration unit/still column (NATCO Model 90-200) shall not exceed 30 mmscf/day. Compliance with the Maximum Throughput Limitation shall be determined using a twelve month rolling total. A twelve month rolling total shall mean the sum of the monthly throughput at any given time during the previous twelve consecutive calendar months. [45CSR13, R13-2808, 5.1.1.]

5.1.2. Maximum emissions from the Glycol Regenerator Still Vent (RSV-1) shall not exceed the following potential to emit (pounds per hour and tons per year): [45CSR13, R13-2808, 5.1.2.] See Permit for emission limits.

5.1.3. For purposes of determining potential HAP emissions at production-related facilities, the methods specified in 40 CFR 63, Subpart HH (i.e. excluding compressor engines from HAP PTE) shall be used. [45CSR13, R13-2808, 5.1.3.]

5.1.4 No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average. [45CSR52-3.1]

5.2.1. The permittee shall monitor the throughput of wet natural gas fed to the dehydration system on a monthly basis for the glycol dehydration unit/still column (NATCO Model 90-200). [45CSR13, R13-2808, 5.2.1.]

5.2.2. The permittee shall monitor and record bi-monthly the following actual input parameters for GRI GLYCalc V3 or higher: (1) Wet gas or contactor temperature/degrees F; (2) Wet gas or contactor pressure/psig; (3) Lean glycol flow rate/gpm (in lieu of this parameter, 3.0 gal/lb H2O may be used); (4) Dry gas water content/ lb H2O/mmscf (in lieu of this parameter, 7 lb/MMscf may be used). [45CSR13, R13-2808, 5.2.2.]

- CSR § 45-2-3.1 (Not to exceed 10% opacity)
- CSR § 45-4-3.1 (No objectionable odors)
- CSR § 45-29 and WV Code § 22-5-4(14) (Criteria Air Pollutants)
- CSR § 45-11-5.2 (Any Regulated Air Pollutant)
- CSR § 45-30-4.3.h..A. (Any Newly Applicable Standard)

\_\_\_ Permit Shield

**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

5.3.1. Compliance with Section 4.1.1 and Section 6, shall be determined by using GRI-GlyCalc Version 3.0 or higher, sampled in accordance with the Gas Processor Association GPA Method 2166 and analyzed in accordance with Method 2286. Representative gas sample collection and analysis frequency for dehydration units shall be determined based on the level of HAP emissions from the glycol dehydration unit of the affected facility as set forth in the schedule provided in the table below. The minimum frequency stated in the table does not relieve the affected facility from the requirement to appropriately account for process or feed gas changes that could affect minor source status and the less than 1 ton/year of Benzene Exemption or prevent the affected facility from conducting more frequent sampling and analysis and producing a representative average composition. *See Permit for more information.* **[45CSR13, R13-2808, 5.3.1.]**

5.3.2. The permittee must input operating parameters that provide the highest HAP emissions (i.e. maximum design rate of lean glycol recirculation rate) when using GRI-GLYCalc V3 or higher or the permittee must input parameters based on an annual average, and update the GlyCalc analysis annually. This provision does not change the frequency of the wet gas analysis as specified in Section 5.3.1. The permittee shall document how they determined the annual average value or highest single measured value, at a minimum, for the following input parameters: (1) Wet gas temperature/degrees F; (2) Wet gas pressure/psig; (3) Lean glycol flow rate/gpm (in lieu of this parameter, 3.0 gal/lb H2O may be used); (4) Dry gas water content/ lb H2O/mmscf (in lieu of this parameter, 7 lb/MMscf may be used). **[45CSR13, R13-2808, 5.3.2.]**

5.4.1. The permittee shall maintain a record of the monthly wet natural gas throughput through the glycol dehydration unit to demonstrate compliance with section 5.1.1 of this permit. Said records shall be maintained for a period of five (5) years on site or in a readily accessible off-site location maintained by the permittee. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official. **[45CSR13, R13-2808, 5.4.1.]**

5.4.2. For the purpose of demonstrating compliance with the limits set forth in section 4.1.1, the permittee shall maintain records of the flow rate measurements and wet gas analysis made during the initial compliance determination or subsequent compliance determinations in accordance with Section 5.3. Said records shall be maintained for a period of five (5) years on site or in a readily accessible off-site location maintained by the permittee. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official. **[45CSR13, R13-2808, 5.4.2.]**

5.4.3. The permittee shall maintain records of the GLYCalc analysis as required by section 5.3 of this permit. Said records shall include a printout of the aggregate calculations report, which shall include emissions reports, equipment reports, and stream reports. The permittee shall maintain bi-monthly records of the input parameters required by section 5.2.2. Such records shall be retained for at least 5 years. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. A responsible official shall certify any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director. **[45CSR13, R13-2808, 5.4.3.]**

5.5.1. The permittee shall submit the wet gas analysis report required by section 5.3.1 of this permit within 60 days of conducting the sampling of the wet gas stream as required. This report shall include a potential to emit (PTE) estimate using GRI-GlyCalc Version 3.0 or higher, incorporating the specific parameters measured as referenced in section 5.2.2, as well as a copy of the laboratory analysis. **[45CSR13, R13-2808, 5.5.1.]**

5.5.2. If the results of the compliance determination conducted as required in Section 5.3 predict the emission(s) to be greater than 9.4 tons per year for any single HAP, or a combined total of HAPs greater than 24.4 tons per year, the permittee shall submit such determination and all supporting documentation to the Director within 15 days after making such determination. **[45CSR13, R13-2808, 5.5.2.]**

CSR § 45-2-3.1 (Not to exceed 10% opacity), Method of Demonstrating Compliance (Visual Inspection and Recordkeeping), Condition Number III.D.2

CSR § 45-4-3.1 (No objectionable odors), Method of Demonstrating Compliance (NA)

CSR § 45-29 and WV Code § 22-5-4(14) (Criteria Air Pollutants), Method of Demonstrating Compliance (Reporting), Condition Number III.C.2.a.v

CSR § 45-11-5.2 (Any Regulated Air Pollutant), Method of Demonstrating Compliance (NA)

CSR § 45-30-4.3.h..A. (Any Newly Applicable Standard), Method of Demonstrating Compliance (NA)

**Are you in compliance with all applicable requirements for this emission unit?  Yes  No**

**If no, complete the Schedule of Compliance Form as ATTACHMENT F.**

## ATTACHMENT E - Emission Unit Form

### *Emission Unit Description*

<b>Emission unit ID number:</b> RSV-1	<b>Emission unit name:</b> Dehydration Unit Still Vent	<b>List any control devices associated with this emission unit:</b> None.
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**

Glycol Dehydration Unit, 30MMscf/day.

<b>Manufacturer:</b> NATCO	<b>Model number:</b> Model 90-200	<b>Serial number:</b> N/A
<b>Construction date:</b> N/A	<b>Installation date:</b> 2009	<b>Modification date(s):</b> N/A

**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):** 25 MMscf/day throughput

<b>Maximum Hourly Throughput:</b> 1.25 MMft <sup>3</sup> /hr	<b>Maximum Annual Throughput:</b> 10,950 MMscf/yr	<b>Maximum Operating Schedule:</b> 8,760 hrs/yr
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### *Fuel Usage Data (fill out all applicable fields)*

<b>Does this emission unit combust fuel?</b> ___ Yes <u>X</u> No	<b>If yes, is it?</b> ___ Indirect Fired ___ Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b> N/A	<b>Type and Btu/hr rating of burners:</b> N/A
---	--

**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**

N/A

**Describe each fuel expected to be used during the term of the permit.**

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

### *Emissions Data*

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	-	-
Nitrogen Oxides (NO <sub>x</sub> )	-	-
Lead (Pb)	-	-
Particulate Matter (PM <sub>2.5</sub> )	-	-

Particulate Matter (PM <sub>10</sub> )	-	-
Total Particulate Matter (TSP)	-	-
Sulfur Dioxide (SO <sub>2</sub> )	-	-
Volatile Organic Compounds (VOC)	3.61	15.82
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Benzene	0.10	0.4
Ethylbenzene	0.01	0.01
Toluene	0.14	0.62
Xylene	0.04	0.15
n-Hexane	0.10	0.42
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
N/A	N/A	N/A
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>GRI-GLYCalc 4.0</p>		

**Applicable Requirements**

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

5.1.1. Maximum Throughput Limitation. The maximum wet natural gas throughput to the glycol dehydration unit/still column (NATCO Model 90-200) shall not exceed 30 mmscf/day. Compliance with the Maximum Throughput Limitation shall be determined using a twelve month rolling total. A twelve month rolling total shall mean the sum of the monthly throughput at any given time during the previous twelve consecutive calendar months. [45CSR13, R13-2808, 5.1.1.]

5.1.2. Maximum emissions from the Glycol Regenerator Still Vent (RSV-1) shall not exceed the following potential to emit (pounds per hour and tons per year): [45CSR13, R13-2808, 5.1.2.] See Permit for emission limits.

5.1.3. For purposes of determining potential HAP emissions at production-related facilities, the methods specified in 40 CFR 63, Subpart HH (i.e. excluding compressor engines from HAP PTE) shall be used. [45CSR13, R13-2808, 5.1.3.]

5.1.4 No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average. [45CSR§2-3.1]

5.2.1. The permittee shall monitor the throughput of wet natural gas fed to the dehydration system on a monthly basis for the glycol dehydration unit/still column (NATCO Model 90-200). [45CSR13, R13-2808, 5.2.1.]

5.2.2. The permittee shall monitor and record bi-monthly the following actual input parameters for GRI GLYCalc V3 or higher: (1) Wet gas or contactor temperature/degrees F; (2) Wet gas or contactor pressure/psig; (3) Lean glycol flow rate/gpm (in lieu of this parameter, 3.0 gal/lb H2O may be used); (4) Dry gas water content/ lb H2O/mmscf (in lieu of this parameter, 7 lb/MMscf may be used). [45CSR13, R13-2808, 5.2.2.]

CSR § 45-2-3.1 (Not to exceed 10% opacity)  
 CSR § 45-4-3.1 (No objectionable odors)

CSR § 45-29 and WV Code § 22-5-4(14) (Criteria Air Pollutants)  
CSR § 45-11-5.2 (Any Regulated Air Pollutant)  
CSR § 45-30-4.3.h..A. (Any Newly Applicable Standard)  
CSR § 45-16-4.6 (No objectionable odors)

\_\_\_ Permit Shield

**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

5.3.1. Compliance with Section 4.1.1 and Section 6, shall be determined by using GRI-GlyCalc Version 3.0 or higher, sampled in accordance with the Gas Processor Association GPA Method 2166 and analyzed in accordance with Method 2286. Representative gas sample collection and analysis frequency for dehydration units shall be determined based on the level of HAP emissions from the glycol dehydration unit of the affected facility as set forth in the schedule provided in the table below. The minimum frequency stated in the table does not relieve the affected facility from the requirement to appropriately account for process or feed gas changes that could affect minor source status and the less than 1 ton/year of Benzene Exemption or prevent the affected facility from conducting more frequent sampling and analysis and producing a representative average composition. *See Permit for more information.* **[45CSR13, R13-2808, 5.3.1.]**

5.3.2. The permittee must input operating parameters that provide the highest HAP emissions (i.e. maximum design rate of lean glycol recirculation rate) when using GRI-GLYCalc V3 or higher or the permittee must input parameters based on an annual average, and update the GlyCalc analysis annually. This provision does not change the frequency of the wet gas analysis as specified in Section 5.3.1. The permittee shall document how they determined the annual average value or highest single measured value, at a minimum, for the following input parameters: (1) Wet gas temperature/degrees F; (2) Wet gas pressure/psig; (3) Lean glycol flow rate/gpm (in lieu of this parameter, 3.0 gal/lb H2O may be used); (4) Dry gas water content/ lb H2O/mmscf (in lieu of this parameter, 7 lb/MMscf may be used). **[45CSR13, R13-2808, 5.3.2.]**

5.4.1. The permittee shall maintain a record of the monthly wet natural gas throughput through the glycol dehydration unit to demonstrate compliance with section 5.1.1 of this permit. Said records shall be maintained for a period of five (5) years on site or in a readily accessible off-site location maintained by the permittee. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official. **[45CSR13, R13-2808, 5.4.1.]**

5.4.2. For the purpose of demonstrating compliance with the limits set forth in section 4.1.1, the permittee shall maintain records of the flow rate measurements and wet gas analysis made during the initial compliance determination or subsequent compliance determinations in accordance with Section 5.3. Said records shall be maintained for a period of five (5) years on site or in a readily accessible off-site location maintained by the permittee. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official. **[45CSR13, R13-2808, 5.4.2.]**

5.4.3. The permittee shall maintain records of the GLYCalc analysis as required by section 5.3 of this permit. Said records shall include a printout of the aggregate calculations report, which shall include emissions reports, equipment reports, and stream reports. The permittee shall maintain bi-monthly records of the input parameters required by section 5.2.2. Such records shall be retained for at least 5 years. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. A responsible official shall certify any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director. **[45CSR13, R13-2808, 5.4.3.]**

5.5.1. The permittee shall submit the wet gas analysis report required by section 5.3.1 of this permit within 60 days of conducting the sampling of the wet gas stream as required. This report shall include a potential to emit (PTE) estimate using GRI-GlyCalc Version 3.0 or higher, incorporating the specific parameters measured as referenced in section 5.2.2, as well as a copy of the laboratory analysis. **[45CSR13, R13-2808, 5.5.1.]**

5.5.2. If the results of the compliance determination conducted as required in Section 5.3 predict the emission(s) to be greater than 9.4 tons per year for any single HAP, or a combined total of HAPs greater than 24.4 tons per year, the permittee shall submit such determination and all supporting documentation to the Director within 15 days after making such determination. **[45CSR13, R13-2808, 5.5.2.]**

CSR § 45-16-4.6 (No objectionable odors), Method of Demonstrating Compliance (NA)

Are you in compliance with all applicable requirements for this emission unit?  Yes  No

If no, complete the Schedule of Compliance Form as ATTACHMENT F.