RENEWAL TITLE V PERMIT APPLICATION

HEIZER COMPRESSOR STATION
POCA, WEST VIRGINIA
PLANT ID. 079-00046

PREPARED FOR:

CRANBERRY PIPELINE CORPORATION
PITTSBURGH, PENNSYLVANIA

PREPARED BY:

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

PROJECT NUMBER: ERSG 11-101-30

SEPTEMBER 2011

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

1. Name of Applicant (As registered with the WV Secretary of State's Office):	2. Facility Name or Location:
CRANBERRY PIPELINE CORPORATION	HEIZER COMPRESSOR STATION
3. DAQ Plant ID No.:	**4. Federal Employer ID No. (FEIN):**
0 7 9 — 0 0 0 4 6	0 4 2 9 8 9 9 3 4

5. Permit Application Type:

☐ Initial Permit — When did operations commence? 1967
☒ Permit Renewal — What is the expiration date of the existing permit? 08/14/2012
☐ Update to Initial/Renewal Permit Application

6. Type of Business Entity:

☒ Corporation ☐ Governmental Agency ☐ LLC
☐ Partnership ☐ Limited Partnership

7. Is the Applicant the:

☐ Owner ☐ Operator ☒ Both

If the Applicant is not both the owner and operator, please provide the name and address of the other party.

_____
_____
_____

8. Number of onsite employees:

0

9. Governmental Code:

☒ Privately owned and operated; 0
☐ Federally owned and operated; 1
☐ State government owned and operated; 2
☐ County government owned and operated; 3
☐ Municipality government owned and operated; 4
☐ District government owned and operated; 5

10. Business Confidentiality Claims

Does this application include confidential information (per 45CSR31)? ☐ Yes ☒ No

If yes, identify each segment of information on each page that is submitted as confidential, and provide justification for each segment claimed confidential, including the criteria under 45CSR§31-4.1, and in accordance with the DAQ's *"PRECAUTIONARY NOTICE-CLAIMS OF CONFIDENTIALITY"* guidance.

11. Mailing Address		
Street or P.O. Box: 5 PENN CENTER WEST, SUITE 401		
City: PITTSBURGH	**State:** PA	**Zip: 15276-0120**
Telephone Number: (412) 249-3850	**Fax Number:** (412) 249-3855	

12. Facility Location		
Street: HEIZER CREEK ROAD	**City:** POCA	**County:** PUTNAM
UTM Easting: 432.48 km	**UTM Northing:** 4263.99 km	**Zone:** ☒ 17 or ☐ 18
Directions: TRAVELING N ON SR 62, TAKE A RIGHT ON CR 27, HEIZER CREEK ROAD, TRAVEL APPROXIMATELY 5.4 MILES, STATION IS LOCATED ON THE LEFT.		
Portable Source? ☐ Yes ☒ No		
Is facility located within a nonattainment area? ☐ Yes ☒ No		**If yes, for what air pollutants?**
Is facility located within 50 miles of another state? ☒ Yes ☐ No		**If yes, name the affected state(s).** KENTUCKY OHIO
Is facility located within 100 km of a Class I Area[1]? ☐ Yes ☒ No **If no, do emissions impact a Class I Area[1]?** ☐ Yes ☒ No		**If yes, name the area(s).**
[1] *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.*		

13. Contact Information		
Responsible Official: RANDY SPENCER		**Title:** MANAGER, SAFETY AND ENVIRONMENTAL
Street or P.O. Box: 5 PENN CENTER WEST SUITE 401		
City: PITTSBURGH	**State:** PA	**Zip: 15276-0120**
Telephone Number: (412) 249-3850	**Fax Number:** (412) 249-3855	
E-mail address: RANDY.SPENCER@CABOTOG.COM		
Environmental Contact: RANDY SPENCER		**Title:** MANAGER, SAFETY AND ENVIRONMENTAL
Street or P.O. Box: 5 PENN CENTER WEST SUITE 401		
City: PITTSBURGH	**State:** PA	**Zip: 15276-0120**
Telephone Number: (412) 249-3850	**Fax Number:** (412) 249-3855	
E-mail address: RANDY.SPENCER@CABOTOG.COM		
Application Preparer: CHRISTOPHER L. BOGGESS		**Title:** ENVIRONMENTAL ENGINEER
Company: ENVIRONMENTAL REGULATORY SERVICE GROUP		
Street or P.O. Box: 2288 ROXALANA ROAD		
City: DUNBAR	**State:** WV	**Zip: 25064**
Telephone Number: (304) 746-4780	**Fax Number:** (304) 746-4783	
E-mail address: CHRIS@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	Natural Gas	211111	1311
Natural Gas Storage	Natural Gas	486210	4922

Provide a general description of operations.

The Heizer Compressor Station is a natural gas transmission facility which consists of TEG dehydrator, a dehydrator reboiler, a 440 natural gas compressor engine, an 880 natural gas compressor engine, and four (4) storage tanks (2,100 gallon pipeline fluid, 3,000 gallon new oil, 1,050 used oil, and 1,050 gallon anti-freeze). The control device on the TEG dehydrator is a BTEX eliminator. The JATCO No. 5-96 BTEX Eliminator (1C) is a heat exchanger condensing system which is used to capture and recycle BTEX and VOC vapors from the TEG Dehydration Unit (005). The rich (wet) TEG from the bottom of the dehydration's unit contacting tower is used as the coolant in the BTEX eliminator prior to its being regenerated in the Reboiler (004). The reboiler regenerates the rich TEG for reuse in the dehydration unit by boiling off the water through a still vent. The still vent emissions, which contain steam along with VOCs and BTEX, are routed to the BTEX eliminator where the steam is condensed and the VOC and BTEX vapors are injected into the reboiler's burner while its operating. When the reboiler burner shuts down, the VOC and BTEX vapors are sent to the reboiler's exhaust stack where they are contacted with an igniter.

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

18. Applicable Requirements Summary	
Instructions: Mark all applicable requirements.	
☒ SIP	☐ FIP
☒ Minor source NSR (45CSR13)	☐ PSD (45CSR14)
☒ NESHAP (45CSR15)	☐ Nonattainment NSR (45CSR19)
☐ Section 111 NSPS	☒ Section 112(d) MACT standards
☐ Section 112(g) Case-by-case MACT	☐ 112(r) RMP
☐ Section 112(i) Early reduction of HAP	☐ Consumer/commercial prod. reqts., section 183(e)
☐ Section 129 Standards/Reqts.	☐ Stratospheric ozone (Title VI)
☐ Tank vessel reqt., section 183(f)	☐ Emissions cap 45CSR§30-2.6.1
☐ NAAQS, increments or visibility (temp. sources)	☐ 45CSR27 State enforceable only rule
☒ 45CSR4 State enforceable only rule	☐ Acid Rain (Title IV, 45CSR33)
☐ Emissions Trading and Banking (45CSR28)	☒ **C**ompliance **A**ssurance **M**onitoring (40CFR64)
☐ CAIR NO_x Annual Trading Program (45CSR39)	☐ CAIR NO_x Ozone Season Trading Program (45CSR40)
☐ CAIR SO_2 Trading Program (45CSR41)	

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.

The following requirements have been determined not to be applicable to this facility:

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

MACT 40CFR63 Subpart HHH - This facility does not meet the definition of a post extraction facility.

NSPS 40CFR60 Subpart KKK - This facility is not involved in the extraction or fractionation of natural gas.

☐ 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.

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

NSPS 40CFR60 Subpart Dc - The reboiler at this facility is below 10 million BTU/hr.

MACT 40CFR63 Subpart DDDDD - Reboiler potential emissions (PTE) of HAPs are below ten (10) tons per year of individual HAPs and twenty-five (25) tons per year of aggregate HAPs.

NSPS 40CFR60 Subpart GG - applies to turbines and this facility operates no turbines.

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

45CSR2 Particulate matter from indirect fired heat exchangers.

45CSR10 SO2 from indirect fired heat exchangers.

NESHAP 45CSR15

PSD (45CSR19) – This facility is in Kanawha County which is an attainment area.

45CSR27 - This facility does not meet the definition of a chemical processing unit because the equipment does not produce or contact materials containing more than 5% benzene by weight.

Section 111 NSPS - 40CFR60 Subpart Kb - This facility has no storage vessels greater than or equal to 75 cubic meters storing volatile organic liquids. Compressor engines and dehydration units are not specifically applicable to NSPS.

☐ 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**.

21. Active Permits/Consent Orders		
Permit or Consent Order Number	Date of Issuance MM/DD/YYYY	List any Permit Determinations that Affect the Permit *(if any)*
R30-07900046-2007	08/14/2007	None
R13-2694B	08/17/2010	None
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22. Inactive Permits/Obsolete Permit Conditions		
Permit Number	Date of Issuance	Permit Condition Number
R13-2694	03/27/2007	None
R13-2694A	06/14/2010	None
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Section 3: Facility-Wide Emissions

23. Facility-Wide Emissions Summary [Tons per Year]	
Criteria Pollutants	Potential Emissions
Carbon Monoxide (CO)	15.76
Nitrogen Oxides (NO_X)	156.2
Lead (Pb)	-
Particulate Matter ($PM_{2.5}$)[1]	-
Particulate Matter (PM_{10})[1]	-
Total Particulate Matter (TSP)	-
Sulfur Dioxide (SO_2)	0.029
Volatile Organic Compounds (VOC)	13.97
Hazardous Air Pollutants[2]	Potential Emissions
Benzene	0.315
Ethyl benzene	0.003
Formaldehyde	3.350
Hexane	0.050
Toluene	0.120
Xylene	0.022
Regulated Pollutants other than Criteria and HAP	Potential Emissions

[1] *$PM_{2.5}$ and PM_{10} are components of TSP.*
[2] *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)		
☒	1.	Air compressors and pneumatically operated equipment, including hand tools.
☒	2.	Air contaminant detectors or recorders, combustion controllers or shutoffs.
☒	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.
☒	4.	Bathroom/toilet vent emissions.
☒	5.	Batteries and battery charging stations, except at battery manufacturing plants.
☐	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.
☐	7.	Blacksmith forges.
☐	8.	Boiler water treatment operations, not including cooling towers.
☒	9.	Brazing, soldering or welding equipment used as an auxiliary to the principal equipment at the source.
☐	10.	CO_2 lasers, used only on metals and other materials which do not emit HAP in the process.
☒	11.	Combustion emissions from propulsion of mobile sources, except for vessel emissions from Outer Continental Shelf sources.
☒	12.	Combustion units designed and used exclusively for comfort heating that use liquid petroleum gas or natural gas as fuel.
☒	13.	Comfort air conditioning or ventilation systems not used to remove air contaminants generated by or released from specific units of equipment.
☐	14.	Demineralized water tanks and demineralizer vents.
☐	15.	Drop hammers or hydraulic presses for forging or metalworking.
☐	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.
☐	17.	Emergency (backup) electrical generators at residential locations.
☒	18.	Emergency road flares.
☒	19.	Emission units which do not have any applicable requirements and which emit criteria pollutants (CO, NO_x, SO_2, 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. Please specify all emission units for which this exemption applies along with the quantity of criteria pollutants emitted on an hourly and annual basis: Tank Emissions:

TANK I.D.	VOLUME *[gall]*	TANK CONTENTS	EMISSIONS *[tpy]*
Tank 1	2,100	drip gas	0.06779
Tank 2	3,000	new oil	0.00017
Tank 3	1,050	used oil	0.000065
Tank 4	1,050	anti-freeze	0.000005

24. Insignificant Activities (Check all that apply)		
☐	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. 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: _____ _____ _____ _____ _____
☐	21.	Environmental chambers not using hazardous air pollutant (HAP) gases.
☐	22.	Equipment on the premises of industrial and manufacturing operations used solely for the purpose of preparing food for human consumption.
☐	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.
☐	24.	Equipment used for quality control/assurance or inspection purposes, including sampling equipment used to withdraw materials for analysis.
☐	25.	Equipment used for surface coating, painting, dipping or spray operations, except those that will emit VOC or HAP.
☒	26.	Fire suppression systems.
☐	27.	Firefighting equipment and the equipment used to train firefighters.
☐	28.	Flares used solely to indicate danger to the public.
☐	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.
☐	30.	Hand-held applicator equipment for hot melt adhesives with no VOC in the adhesive formulation.
☒	31.	Hand-held equipment for buffing, polishing, cutting, drilling, sawing, grinding, turning or machining wood, metal or plastic.
☐	32.	Humidity chambers.
☐	33.	Hydraulic and hydrostatic testing equipment.
☐	34.	Indoor or outdoor kerosene heaters.
☐	35.	Internal combustion engines used for landscaping purposes.
☐	36.	Laser trimmers using dust collection to prevent fugitive emissions.
☐	37.	Laundry activities, except for dry-cleaning and steam boilers.
☐	38.	Natural gas pressure regulator vents, excluding venting at oil and gas production facilities.
☐	39.	Oxygen scavenging (de-aeration) of water.
☐	40.	Ozone generators.
☒	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

24. Insignificant Activities (Check all that apply)		
		owners/operators must still get a permit if otherwise requested.)
☐	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.
☐	43.	Process water filtration systems and demineralizers.
☒	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.
☐	45.	Repairs or maintenance where no structural repairs are made and where no new air pollutant emitting facilities are installed or modified.
☐	46.	Routing calibration and maintenance of laboratory equipment or other analytical instruments.
☐	47.	Salt baths using nonvolatile salts that do not result in emissions of any regulated air pollutants. Shock chambers.
☐	48.	Shock chambers.
☐	49.	Solar simulators.
☐	50.	Space heaters operating by direct heat transfer.
☐	51.	Steam cleaning operations.
☐	52.	Steam leaks.
☐	53.	Steam sterilizers.
☐	54.	Steam vents and safety relief valves.
☐	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.
☐	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.
☐	57.	Such other sources or activities as the Director may determine.
☒	58.	Tobacco smoking rooms and areas.
☐	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: _____ Signature Date: 9-13-11

(Must be signed and dated in blue ink)

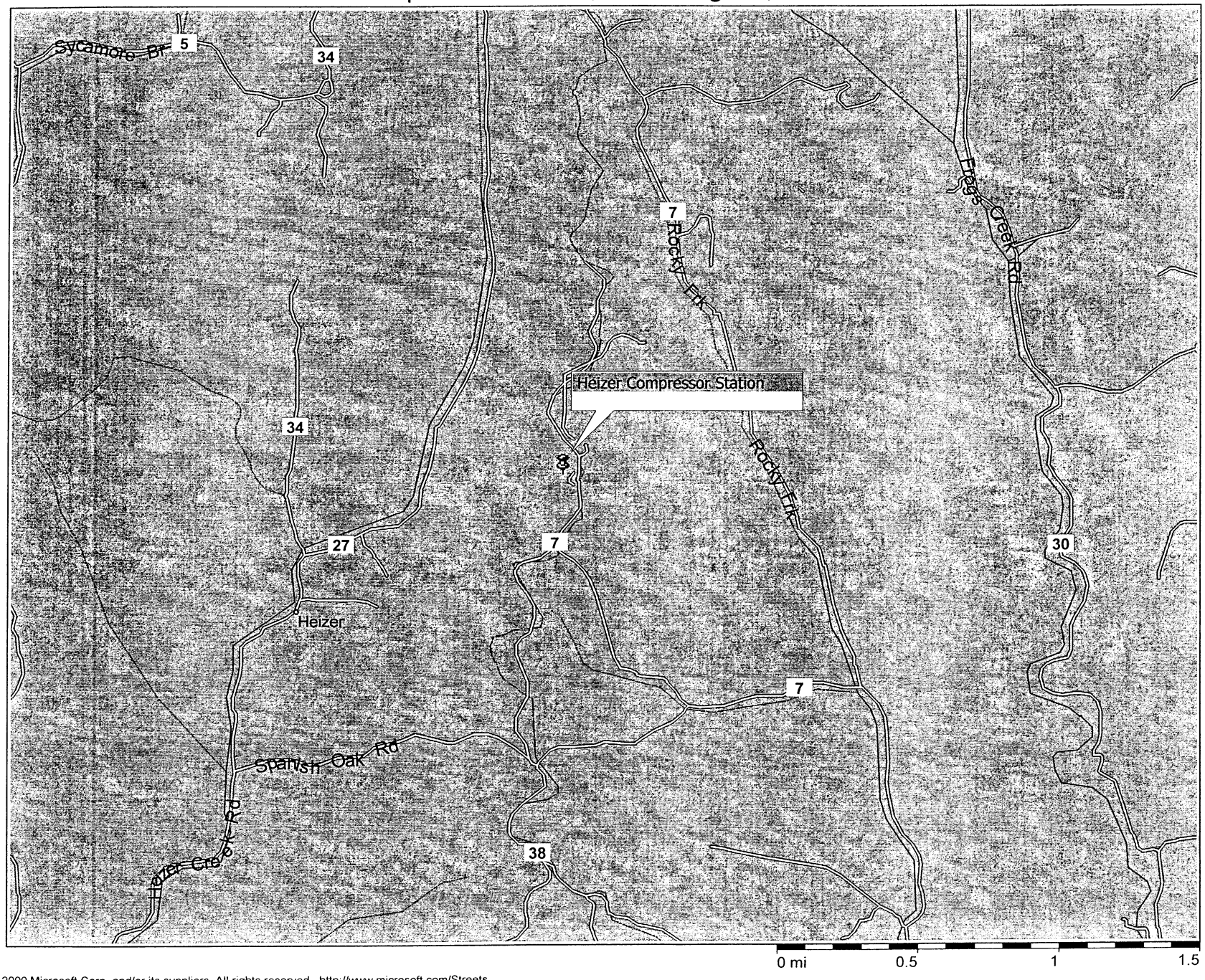
Note: Please check all applicable attachments included with this permit application:	
☒	ATTACHMENT A: Area Map
☒	ATTACHMENT B: Plot Plan(s)
☒	ATTACHMENT C: Process Flow Diagram(s)
☒	ATTACHMENT D: Equipment Table
☒	ATTACHMENT E: Emission Unit Form(s)
☐	ATTACHMENT F: Schedule of Compliance Form(s)
☒	ATTACHMENT G: Air Pollution Control Device Form(s)
☒	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.wv.gov/daq, requested by phone (304) 926-0475, and/or obtained through the mail.

ATTACHMENT A

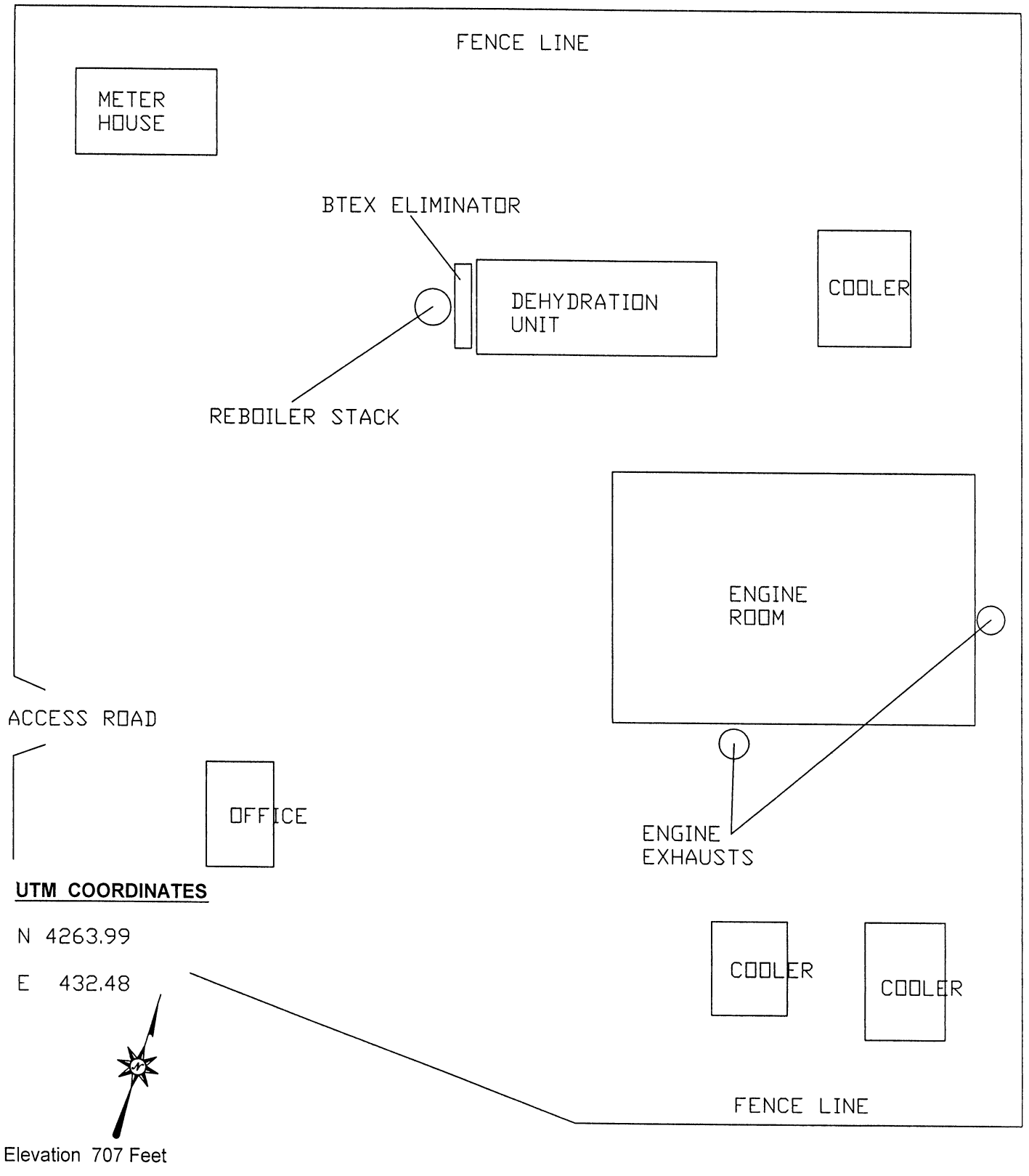
AREA MAP

Heizer Compressor Station, West Virginia, United States



ATTACHMENT B

PLOT PLAN(S)



ERSG ENVIRONMENTAL REGULATORY SERVICE GROUP, INC. 2288 Roxalana Road Dunbar, WV 25064 PHONE: (304) 746-4780 FAX: (304) 746-4783	HEIZER COMPRESSOR STATION GENERAL LAYOUT	DWN. CLB	CHKD. NLL
		APPD. NLL	DATE 06-06-11
	CRANBERRY PIPELINE CORPORATION CHARLESTON, WEST VIRGINIA	SCALE: NA	
		DRAWING NUMBER 11-101-30	REV
		SHT. NO. 1 OF 1	

ATTACHMENT C

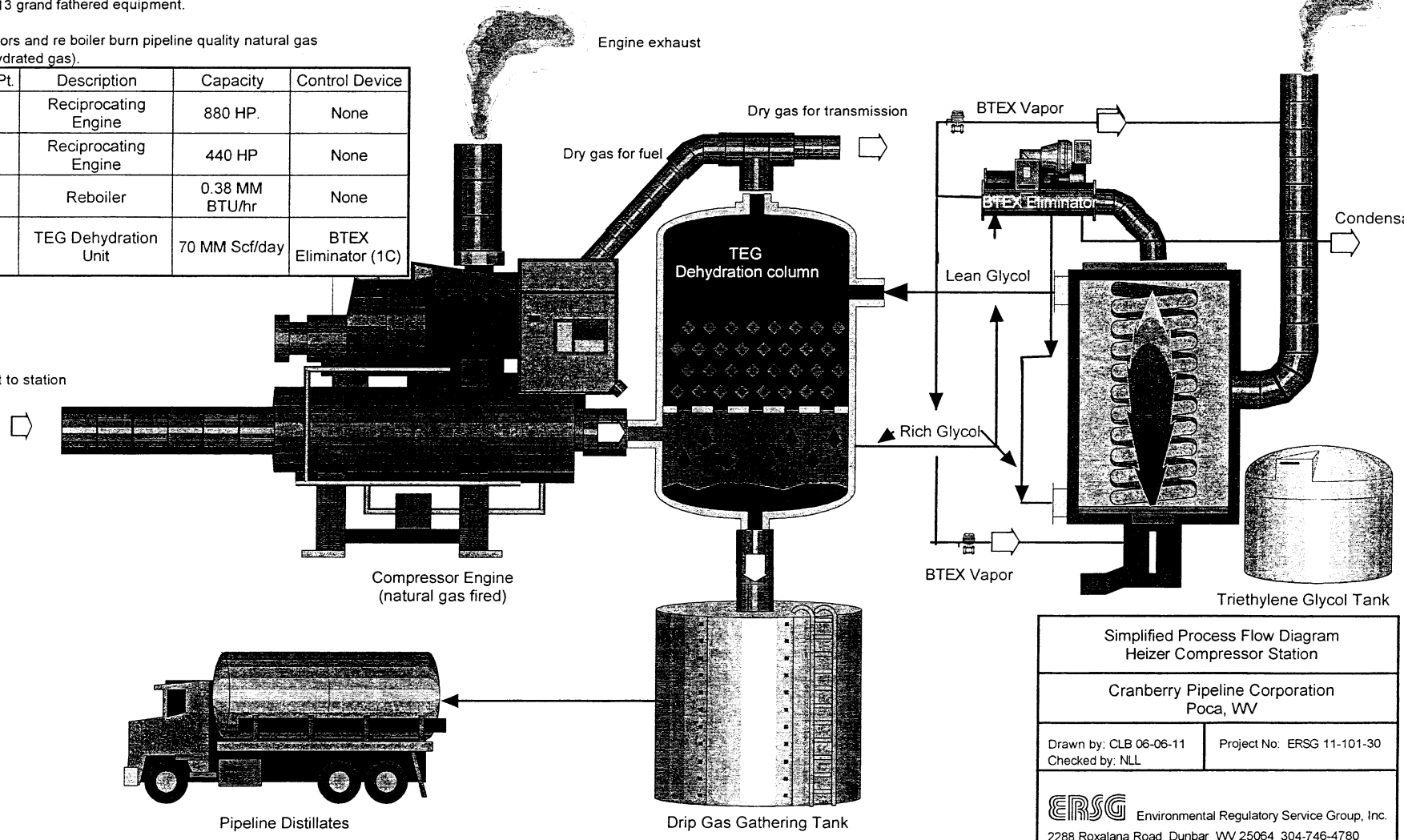
PROCESS FLOW DIAGRAM(S)

HEIZER COMPRESSOR STATION

Station Modification
Install B-TEX Eliminator after removing existing flare at station. No changes are proposed to existing 45CSR13 grand fathered equipment.

Note: Compressors and re boiler burn pipeline quality natural gas for fuel (i.e. dehydrated gas).

source ID	Emission Pt.	Description	Capacity	Control Device
#1	001-02	Reciprocating Engine	880 HP.	None
#2	001-03	Reciprocating Engine	440 HP	None
004 (Dehy)	001-04	Reboiler	0.38 MM BTU/hr	None
005	001-006	TEG Dehydration Unit	70 MM Scf/day	BTEX Eliminator (1C)



Simplified Process Flow Diagram
Heizer Compressor Station

Cranberry Pipeline Corporation
Poca, WV

Drawn by: CLB 06-06-11
Checked by: NLL

Project No: ERSG 11-101-30

ERSG Environmental Regulatory Service Group, Inc.
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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[1]	Control Device[1]	Emission Unit ID[1]	Emission Unit Description	Design Capacity	Year Installed/ Modified
001-02	N/A	#1*	Cooper Reciprocating Engine	880 hP	1967
001-03	N/A	#2*	Clark Reciprocating Engine	440hP	1967
001-04	N/A	#004*	BS&B Dehydrator Reboiler	0.38 MMBtu/hr	2009
001-04	N/A	#005*	BS&B Still Column	70 mmscf/day	2009
001-04	1C	-	JATCO No. 5-96 BTEX Eliminator	122 acfm	2010
001-08	N/A	Tank 1	Drip Tank No. 1	2100 gal	2006
001-09	N/A	Tank 2	Engine Oil Tank No. 1	3000 gal	2006
001-10	N/A	Tank 3	Engine Oil Tank No. 2	1050 gal	2006
001-11	N/A	Tank 4	Antifreeze Tank	1050 gal	2006

[1]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

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
#1	Cooper Reciprocating Engine	N/A

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

Compressor Engine; 2 Stroke Cycle; Lean Burn Engine (Grandfathered with no emission limits)

Manufacturer:	**Model number:**	**Serial number:**
Cooper	GMV-8-TF	N/A
Construction date:	**Installation date:**	**Modification date(s):**
N/A	1967	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 880 hP

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Grandfathered; No Limits	Grandfathered; No Limits	8,760 hrs

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

Does this emission unit combust fuel? _X_ Yes ___ No	**If yes, is it?** ___ Indirect Fired _X_ Direct Fired
Maximum design heat input and/or maximum horsepower rating: Maximum horsepower rating: 880 hP Grandfathered; No limits	**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.

This equipment combusts pipeline quality natural gas only; grandfathered in with no emission limits

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 ppm	NA	1,000

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	2.374	10.40
Nitrogen Oxides (NO_X)	23.74	104.0
Lead (Pb)	-	-
Particulate Matter ($PM_{2.5}$)	-	-
Particulate Matter (PM_{10})	-	-
Total Particulate Matter (TSP)	-	-
Sulfur Dioxide (SO_2)	0.004	0.019
Volatile Organic Compounds (VOC)	1.846	8.087
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Benzene	0.025	0.108
Formaldehyde	0.510	2.234
Xylene	0.003	0.014
Ethylbenzene	0.001	0.002
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.

N/A

____ 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? _X_ Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
#2	Clark Reciprocating Engine	N/A

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

Compressor Engine; 2 Stroke Cycle; Lean Burn Engine (Grandfathered with no emission limits)

Manufacturer:	**Model number:**	**Serial number:**
Clark	HMB-8	N/A
Construction date:	**Installation date:**	**Modification date(s):**
N/A	1967	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 440 hP

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Grandfathered; No Limits	Grandfathered; No Limits	8,760 hrs

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

Does this emission unit combust fuel? X Yes ___ No	**If yes, is it?** ___ Indirect Fired X Direct Fired
Maximum design heat input and/or maximum horsepower rating: Maximum horsepower rating: 440 hP Grandfathered; No limits	**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.

This equipment combusts pipeline quality natural gas only; grandfathered in with no emission limits

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 ppm	NA	1,000

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	1.187	5.199
Nitrogen Oxides (NO_X)	11.87	51.99
Lead (Pb)	-	-
Particulate Matter ($PM_{2.5}$)	-	-
Particulate Matter (PM_{10})	-	-
Total Particulate Matter (TSP)	-	-
Sulfur Dioxide (SO_2)	0.002	0.010
Volatile Organic Compounds (VOC)	0.923	4.044
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Benzene	0.012	0.054
Formaldehyde	0.255	1.117
Xylene	0.002	0.007
Ethylbenzene	0.0002	0.0008
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.

N/A

____ 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? _X_Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
#4	Reboiler – BS&B	N/A

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

0.38 MMBtu/hr Heat Input

Manufacturer:	**Model number:**	**Serial number:**
BS&B	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
N/A	1968	2009

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 0.38 MMBtu/hr Heat Input

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
N/A	N/A	8,760 hrs

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

Does this emission unit combust fuel? _X_ Yes ___ No	**If yes, is it?** ___ Indirect Fired _X_ Direct Fired
Maximum design heat input and/or maximum horsepower rating: Maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** 0.38 MMBtu/hr

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/10^6 scf	NA	1,000

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	0.04	0.16
Nitrogen Oxides (NO_X)	0.05	0.19
Lead (Pb)	-	-
Particulate Matter ($PM_{2.5}$)	-	-
Particulate Matter (PM_{10})	-	-
Total Particulate Matter (TSP)	-	-
Sulfur Dioxide (SO_2)	-	-
Volatile Organic Compounds (VOC)	0.3	1.28
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Total HAP's	0.05	0.22
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.).

R13-2694B

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.

5.1.2. Maximum Design Heat Input. The maximum design heat input for the BS&B Glycol Reboiler shall not exceed 0.38 MMBTU/hr. **[45CSR13, R13-2694B]**

5.1.3. The quantity of natural gas that shall be consumed in the 0.38 MMBtu/hr Glycol Reboiler (004) shall not exceed 373 cubic feet per hour or 3.27 x 10_6 cubic feet per year. **[45CSR13, R13-2694B]**

5.1.4. Maximum emissions from the Glycol Reboiler (001-04) shall not exceed the limits listed above. **[45CSR13, R13-2694B]**

5.1.7. Recycled reboilers subject to this section shall be designed and operated in accordance with the following: **[45CSR13, R13-2694B]**

- The vapors/overheads from the still column shall be routed through a closed vent system to the reboiler at all times when there is a potential that vapors (emissions) can be generated from the still column.
- The reboiler shall only be fired with vapors from the still column, and natural gas may be used as supplemental fuel.
- The vapors/overheads from the still column shall be introduced into the flame zone of the reboiler.

____ 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.)

5.2.3. The permittee shall monitor the natural gas consumed in the BS&B Glycol Reboiler (001-04) on a monthly basis. **[45CSR13, R13-2694B]**

5.3.3. To demonstrate compliance with section 5.1.3 and 5.1.4, the permittee shall maintain records of the amount of natural gas consumed in the BS&B Glycol Reboiler (004). Said records shall be maintained on site or in a readily accessible off-site location maintained by the permittee for a period of five (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. 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, R13-2694B]**

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
#5	Still Column – BS&B	1C

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

70 mmscf/day

Manufacturer:	**Model number:**	**Serial number:**
BS&B	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
N/A	1968	2009

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 70 mmscf/day

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
N/A	N/A	8,760 hrs

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

Does this emission unit combust fuel? ___ Yes X No	**If yes, is it?** ___ Indirect Fired ___ Direct Fired
Maximum design heat input and/or maximum horsepower rating: 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	NA	N/A

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	-	-
Nitrogen Oxides (NO_X)	-	-
Lead (Pb)	-	-
Particulate Matter ($PM_{2.5}$)	-	-
Particulate Matter (PM_{10})	-	-
Total Particulate Matter (TSP)	-	-
Sulfur Dioxide (SO_2)	-	-
Volatile Organic Compounds (VOC)	2.014	8.822
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Total HAP's	0.527	2.311
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.).

GRI-GLYCalc 4.0

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.

5.1.1. Maximum Throughput Limitation. The maximum wet natural gas throughput to the glycol dehydration unit/still column shall not exceed 70 mmscf/day. **[45CSR13, R13-2694B]**

5.1.5. For purposes of determining potential HAP emissions at transmission and storage facilities to comply with the requirements in Section 4.1.2, the methods specified in 40 CFR 63, Subpart HHH shall be used. 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, R13-2694B]**

5.1.6. The glycol dehydration unit/still column (005) shall be equipped with a fully functional JATCO BTEX Elimination System (1C) at all times. The JATCO BTEX Elimination System (1C) shall be operated according to manufacturer's specifications, and shall be housed in an enclosed structure in order to prevent the unit from freezing. **[45CSR13, R13-2694B]**

5.1.7. Recycled reboilers subject to this section shall be designed and operated in accordance with the following: **[45CSR13, R13-2694B]**

- The vapors/overheads from the still column shall be routed through a closed vent system to the reboiler at all times when there is a potential that vapors (emissions) can be generated from the still column.
- The reboiler shall only be fired with vapors from the still column, and natural gas may be used as supplemental fuel.
- The vapors/overheads from the still column shall be introduced into the flame zone of the reboiler.

____ 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.)

5.2.1. The permittee shall monitor the throughput of wet natural gas fed to the dehydration system on a monthly basis for the glycol dehydration unit (005). **[45CSR13, R13-2694B]**

5.2.2. The permittee shall monitor the throughput of liquid gathered in storage from the condenser on a monthly basis. **[45CSR13, R13-2694B]**

5.3.1. The permittee shall maintain a record of the wet natural gas throughput through the glycol dehydration unit/still column (005) 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 offsite 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, R13-2694B]**

5.3.2. The permittee shall maintain a record of the condensate gathered from the condenser to demonstrate compliance with section 5.2.2 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, R13-2694B]**

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
1C	JATCO No. 5-96 BTEX Eliminator	None

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

Shell & Tube Heat Exchanger
1,101,600 BTU/hr
122 acfm

Manufacturer:	**Model number:**	**Serial number:**
JATCO	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
N/A	2010	

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 122 acfm

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
N/A	N/A	8,760 hrs

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

Does this emission unit combust fuel? X Yes ___ No	**If yes, is it?** ___ Indirect Fired X Direct Fired
Maximum design heat input and/or maximum horsepower rating: Maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** 1,101,600 BTU/hr

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	2000 PPM	NA	1,101,600 BTU/hr

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	-	-
Nitrogen Oxides (NO_X)	-	-
Lead (Pb)	-	-
Particulate Matter ($PM_{2.5}$)	-	-
Particulate Matter (PM_{10})	-	-
Total Particulate Matter (TSP)	-	-
Sulfur Dioxide (SO_2)	-	-
Volatile Organic Compounds (VOC)	2.014	8.822
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Total HAP's	0.527	2.311
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.).

GRI-GLYCalc 4.0

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.

5.1.1. Maximum Throughput Limitation. The maximum wet natural gas throughput to the glycol dehydration unit/still column shall not exceed 70 mmscf/day. **[45CSR13, R13-2694B]**

5.1.5. For purposes of determining potential HAP emissions at transmission and storage facilities to comply with the requirements in Section 4.1.2, the methods specified in 40 CFR 63, Subpart HHH shall be used. 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, R13-2694B]**

5.1.6. The glycol dehydration unit/still column (005) shall be equipped with a fully functional JATCO BTEX Elimination System (1C) at all times. The JATCO BTEX Elimination System (1C) shall be operated according to manufacturer's specifications, and shall be housed in an enclosed structure in order to prevent the unit from freezing. **[45CSR13, R13-2694B]**

5.1.7. Recycled reboilers subject to this section shall be designed and operated in accordance with the following: **[45CSR13, R13-2694B]**

- The vapors/overheads from the still column shall be routed through a closed vent system to the reboiler at all times when there is a potential that vapors (emissions) can be generated from the still column.
- The reboiler shall only be fired with vapors from the still column, and natural gas may be used as supplemental fuel.
- The vapors/overheads from the still column shall be introduced into the flame zone of the reboiler.

____ 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.)

5.2.1. The permittee shall monitor the throughput of wet natural gas fed to the dehydration system on a monthly basis for the glycol dehydration unit (005). **[45CSR13, R13-2694B]**

5.2.2. The permittee shall monitor the throughput of liquid gathered in storage from the condenser on a monthly basis. **[45CSR13, R13-2694B]**

5.2.3. The permittee shall monitor the natural gas consumed in the BS&B Glycol Reboiler (001-04) on a monthly basis. **[45CSR13, R13-2694B]**

5.2.4. The permittee shall monitor the temperature of the enclosed building in which the JATCO BTEX Elimination System (1C) is housed on a monthly basis. **[45CSR13, R13-2694B]**

5.3.1. The permittee shall maintain a record of the wet natural gas throughput through the glycol dehydration unit/still column (005) 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 offsite 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, R13-2694B]**

5.3.2. The permittee shall maintain a record of the condensate gathered from the condenser to demonstrate compliance with section 5.2.2 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, R13-2694B]**

5.3.4. To demonstrate compliance with section 5.1.6, the permittee shall maintain records of the temperature of the enclosed building in which the JATCO BTEX Elimination System (1C) is housed. Said records shall be maintained on site or in a readily accessible off-site location maintained by the permittee for a period of five (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. 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, R13-2694B]**

5.3.5. For the purpose of demonstrating compliance with section 4.1.2 and 5.1.5, the permittee shall maintain a record of all potential to emit (PTE) HAP calculations for the entire affected facility. These records shall include the natural gas compressor engines and ancillary equipment. **[45CSR13, R13-2694B]**

Are you in compliance with all applicable requirements for this emission unit? _X_Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** None.
Tank 1	Drip Tank No. 1	

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

Drip Tank No. 1; Above ground vertical fixed roof, 8.5 foot diameter, 4,200 gall./yr throughput.

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
N/A	2006	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 2100 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
N/A	N/A	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)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___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

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	-	-
Nitrogen Oxides (NO_X)	-	-
Lead (Pb)	-	-
Particulate Matter ($PM_{2.5}$)	-	-
Particulate Matter (PM_{10})	-	-
Total Particulate Matter (TSP)	-	-
Sulfur Dioxide (SO_2)	-	-
Volatile Organic Compounds (VOC)	0.00155	0.06779
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

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.).

Tanks 4.0

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.

There is no applicable requirement for tanks because there is no tank equal to or greater than 20,000 gallons located at Heizer 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? _X_ Yes ___ No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	Emission unit name:	List any control devices associated with this emission unit: None.
Tank 2	Engine Oil Tank No. 1	

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

Engine Oil Tank No. 1; vertical fixed roof, 7.0 foot diameter, 6,000 gall./yr throughput.

Manufacturer:	Model number:	Serial number:
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
N/A	2006	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 3,000 gallons

Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operating Schedule:
N/A	N/A	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)**

Does this emission unit combust fuel? ___Yes _X_ No	If yes, is it? ___ Indirect Fired ___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

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	-	-
Nitrogen Oxides (NO_X)	-	-
Lead (Pb)	-	-
Particulate Matter ($PM_{2.5}$)	-	-
Particulate Matter (PM_{10})	-	-
Total Particulate Matter (TSP)	-	-
Sulfur Dioxide (SO_2)	-	-
Volatile Organic Compounds (VOC)	0.000038	0.00017
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
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.). Tanks 4.0		

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. There is no applicable requirement for tanks because there is no tank equal to or greater than 20,000 gallons located at Heizer 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? _X_ Yes ___ No If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F.**

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	Emission unit name:	List any control devices associated with this emission unit: None.
Tank 3	Engine Oil Tank No. 2	

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

Engine Oil Tank No. 2; vertical fixed roof, 5.6 foot diameter, 2,100 gall./yr throughput.

Manufacturer:	Model number:	Serial number:
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
N/A	2006	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 1,050 gallons

Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operating Schedule:
N/A	N/A	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)**

Does this emission unit combust fuel? ___Yes _X_ No	If yes, is it? ___ Indirect Fired ___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

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	-	-
Nitrogen Oxides (NO_X)	-	-
Lead (Pb)	-	-
Particulate Matter ($PM_{2.5}$)	-	-
Particulate Matter (PM_{10})	-	-
Total Particulate Matter (TSP)	-	-
Sulfur Dioxide (SO_2)	-	-
Volatile Organic Compounds (VOC)	0.000015	0.000065
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

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.).

Tanks 4.0

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.

There is no applicable requirement for tanks because there is no tank equal to or greater than 20,000 gallons located at Heizer 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? _X_ Yes ___ No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** None.
Tank 4	Antifreeze Tank	

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

Antifreeze Tank; Vertical fixed roof TEG Tank, 5.6 foot diameter, 2,100 gall./yr throughput.

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
N/A	2006	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 1,050 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
N/A	N/A	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)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___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

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	-	-
Nitrogen Oxides (NO_X)	-	-
Lead (Pb)	-	-
Particulate Matter ($PM_{2.5}$)	-	-
Particulate Matter (PM_{10})	-	-
Total Particulate Matter (TSP)	-	-
Sulfur Dioxide (SO_2)	-	-
Volatile Organic Compounds (VOC)	0.000001	0.000005
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
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.). Tanks 4.0		

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. There is no applicable requirement for tanks because there is no tank equal to or greater than 20,000 gallons located at Heizer 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? _X_ Yes ___ No If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT G

AIR POLLUTION CONTROL DEVICE FORM(S)

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: 1C	**List all emission units associated with this control device.** BS&B Still Column	
Manufacturer: JATCO	**Model number:** No. 5-96 BTEX Eliminator	**Installation date:** 11/09

Type of Air Pollution Control Device:

___ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	_X_ Condenser	___ Settling Chamber
___ Thermal Incinerator	__ Flare	___ Other (describe)
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
NOx	100%	99%
CO	100%	99%
VOC	100%	99%
SO_2	100%	99%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).
Maximum Combustion Temperature of 1600°F.
Total rated BTU/Hr burned (includes waste gas) is 1,101,600.
Flare Capacity 850 scf/hr
Burner Rating 1,101,600 Btu/hr
Pilot Light Rating 44,000 Btu/hr

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.**

Describe the parameters monitored and/or methods used to indicate performance of this control device.

4.1.2. The permittee shall, to the extent practicable, install, maintain, and operate JATCO BTEX Elimination System (1C) and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary. [45CSR13, R13-2694, 4.1.3

4.4.1. For the JATCO BTEX Elimination System (1C), the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

a. The equipment involved.
b. Steps taken to minimize emissions during the event.
c. The duration of the event.
d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

e. The cause of the malfunction.
f. Steps taken to correct the malfunction.
g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

[45CSR13, R13-2694, 4.1.4]

5.1.6. The glycol dehydration unit/still column (005) shall be equipped with a fully functional JATCO BTEX Elimination System (1C) at all times. The JATCO BTEX Elimination System (1C) shall be operated according to manufacturer's specifications, and shall be housed in an enclosed structure in order to prevent the unit from freezing. **[45CSR13, R13-2694, 5.1.6]**

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 (005). **[45CSR13, R13-2694, 5.2.1]**

5.2.2. The permittee shall monitor the throughput of liquid gathered in storage from the condenser on a monthly basis. **[45CSR13, R13-2694, 5.2.2]**

5.2.3. The permittee shall monitor the natural gas consumed in the BS&B Glycol Reboiler (001-04) on a monthly basis. **[45CSR13, R13-2694, 5.2.3]**

5.2.4. The permittee shall monitor the temperature of the enclosed building in which the JATCO BTEX Elimination System (1C) is housed on a monthly basis. **[45CSR13, R13-2694, 5.2.4]**

5.4.1. The permittee shall maintain a record of the wet natural gas throughput through the glycol dehydration unit/still column (005) 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 requirements of this permit or upon request by the Director shall be certified by a responsible official. **[45CSR13, R13-2694, 5.3.1]**

5.4.2. The permittee shall maintain a record of the condensate gathered from the condenser to demonstrate compliance with Section 5.2.2 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, R13-2694, 5.3.2]**

5.4.3. To demonstrate compliance with sections 5.1.3 and 5.1.4, the permittee shall maintain records of the amount of natural gas consumed in the BS&B Glycol Reboiler (001-04). Said records shall be maintained on site or in a readily accessible off-site location maintained by the permittee for a period of five (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. 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, R13-2694, 5.3.3]**

5.1.6. To demonstrate compliance with Section 5.1.6, the permittee shall maintain records of the temperature of the enclosed building in which the JATCO BTEX Elimination System (1C) is housed. Said records shall be maintained on site or in a readily accessible off-site location maintained by the permittee for a period of five (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. 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, R13-2694, 5.3.4]

ATTACHMENT H
COMPLIANCE ASSURANCE MONITORING (CAM) PLAN

ERSG

CAM Plan Requirements

The Compliance Assurance Monitoring (CAM) Plan that is included in this report was previously submitted with Rule 13 Permit Modification R13-2694B on August 17, 2010. For record keeping purposes, it has been included to show that a CAM Plan does exist and is in use for this facility.

ATTACHMENT H - Compliance Assurance Monitoring (CAM) Plan Form

For definitions and information about the CAM rule, please refer to 40 CFR Part 64. Additional information (including guidance documents) may also be found at http://www.epa.gov/ttn/emc/cam.html

CAM APPLICABILITY DETERMINATION

1) Does the facility have a PSEU (Pollutant-Specific Emissions Unit considered separately with respect to **EACH** regulated air pollutant) that is subject to CAM (40 CFR Part 64), which must be addressed in this CAM plan submittal? To determine applicability, a PSEU must meet **all** of the following criteria (*If No, then the remainder of this form need not be completed*): ☒ YES ☐ NO

a. The PSEU is located at a major source that is required to obtain a Title V permit;

b. The PSEU is subject to an emission limitation or standard for the applicable regulated air pollutant that is NOT exempt;

LIST OF EXEMPT EMISSION LIMITATIONS OR STANDARDS:

- NSPS (40 CFR Part 60) or NESHAP (40 CFR Parts 61 and 63) proposed after 11/15/1990.
- Stratospheric Ozone Protection Requirements.
- Acid Rain Program Requirements.
- Emission Limitations or Standards for which a WVDEP Division of Air Quality Title V permit specifies a continuous compliance determination method, as defined in 40 CFR §64.1.
- An emission cap that meets the requirements specified in 40 CFR §70.4(b)(12).

c. The PSEU uses an add-on control device (as defined in 40 CFR §64.1) to achieve compliance with an emission limitation or standard;

d. The PSEU has potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than the Title V Major Source Threshold Levels; AND

e. The PSEU is NOT an exempt backup utility power emissions unit that is municipally-owned.

BASIS OF CAM SUBMITTAL

2) Mark the appropriate box below as to why this CAM plan is being submitted as part of an application for a Title V permit:

☐ RENEWAL APPLICATION. **ALL** PSEUs for which a CAM plan has NOT yet been approved need to be addressed in this CAM plan submittal.

☐ INITIAL APPLICATION (submitted after 4/20/98). **ONLY** large PSEUs (i. e., PSEUs with potential post-control device emissions of an applicable regulated air pollutant that are equal to or greater than Major Source Threshold Levels) need to be addressed in this CAM plan submittal.

☒ SIGNIFICANT MODIFICATION TO LARGE PSEUs. **ONLY** large PSEUs being modified after 4/20/98 need to be addressed in this cam plan submittal. For large PSEUs with an approved CAM plan, Only address the appropriate monitoring requirements affected by the significant modification.

3) [a] BACKGROUND DATA AND INFORMATION

Complete the following table for **all** PSEUs that need to be addressed in this CAM plan submittal. This section is to be used to provide background data and information for each PSEU In order to supplement the submittal requirements specified in 40 CFR §64.4. If additional space is needed, attach and label accordingly.

PSEU DESIGNATION	DESCRIPTION	POLLUTANT	CONTROL DEVICE	[b] EMISSION LIMITATION or STANDARD	[c] MONITORING REQUIREMENT
001-006	Dehydration Unit	VOC HAPS	BTEX Eliminator	R13-2694A VOC = 1.27 TPY HAPS = 0.22 TPY	1. Monitor condenser glycol inlet temperature, vapor outlet temperature and the differential between these two temperatures. 2. Monitor static pressure at condenser vapor outlet
EXAMPLE Boiler No. 1	Wood-Fired Boiler	PM	Multiclone	45CSR§2-4.1.c.; 9.0 lb/hr	Monitor pressure drop across multiclone: Weekly inspection of multiclone

[a] If a control device is common to more than one PSEU, one monitoring plan may be submitted for the control device with the affected PSEUs identified and any conditions that must be maintained or monitored in accordance with 40 CFR §64.3(a). If a single PSEU is controlled by more than one control device similar in design and operation, one monitoring plan for the applicable control devices may be submitted with the applicable control devices identified and any conditions that must be maintained or monitored in accordance with 40 CFR §64.3(a).

[b] Indicate the emission limitation or standard for any applicable requirement that constitutes an emission limitation, emission standard, or standard of performance (as defined in 40 CFR §64.1).

[c] Indicate the monitoring requirements for the PSEU that are required by an applicable regulation or permit condition.

CAM MONITORING APPROACH CRITERIA

Complete this section for **EACH** PSEU that needs to be addressed in this CAM plan submittal. This section may be copied as needed for each PSEU. This section is to be used to provide monitoring data and information for EACH indicator selected for EACH PSEU in order to meet the monitoring design criteria specified in 40 CFR §64.3 and §64.4. if more than two indicators are being selected for a PSEU or if additional space is needed, attach and label accordingly with the appropriate PSEU designation, pollutant, and indicator numbers.

4a) PSEU Designation: 001-006	**4b) Pollutant: VOC, HAPS**	**4c) [a] Indicator No. 1:** Glycol inlet temperature, vapor outlet temperature and respective temperature differential.	**4d) [a] Indicator No. 2:** Vapor pressure at condenser outlet.
5a) GENERAL CRITERIA Describe the MONITORING APPROACH used to measure the indicators:		Use thermometer to measure temperatures and temperature differential.	Use pressure gauge to measure pressure.
[b] Establish the appropriate INDICATOR RANGE or the procedures for establishing the indicator range which provides a reasonable assurance of compliance:		10° F maximum rise in vapor outlet temperature above glycol inlet temperature.	2 oz/sq. inch maximum pressure at condenser outlet.
5b) PERFORMANCE CRITERIA Provide the SPECIFICATIONS FOR OBTAINING REPRESENTATIVE DATA, such as detector location, installation specifications, and minimum acceptable accuracy:		Install thermometers at glycol inlet piping and vapor outlet piping close to condenser. Minimum acceptable accuracy of these detectors is to be $\pm$ 2 degrees F.	Install 0-15 ounce/sq. inch pressure gauge at vapor outlet piping close to condenser. Minimum acceptable accuracy of this detector is to be $\pm$ 1 ounce/sq. inch.
[c] For new or modified monitoring equipment, provide VERIFICATION PROCEDURES, including manufacturer's recommendations, TO CONFIRM THE OPERATIONAL STATUS of the monitoring:		All manufacturer recommendations regarding periodic testing/checks for proper installation and operation of the thermometers will be followed.	All manufacturer recommendations regarding periodic testing/checks for proper installation and operation of the pressure gauge will be followed.
Provide QUALITY ASSURANCE AND QUALITY CONTROL (QA/QC) PRACTICES that are adequate to ensure the continuing validity of the data, (i.e., daily calibrations, visual inspections, routine maintenance, RATA, etc.):		Calibration and maintenance of the thermometers will be conducted in accordance with manufactures specifications.	Calibration and maintenance of the pressure gauges will be conducted in accordance with manufactures specifications.
[d] Provide the MONITORING FREQUENCY:		Once per 24 hour period (see Page 5 of 5)	Once per 24 hour period (see Page 5 of 5)
Provide the DATA COLLECTION PROCEDURES that will be used:		Records of all temperature readings and temperature differentials are to be maintained. Records of all corrective actions for temperature differential exceedance are to be maintained.	Records of all pressure differential exceedance along with applicable corrective actions will be maintained.
Provide the DATA AVERAGING PERIOD for the purpose of determining whether an excursion or exceedance has occurred:		Not Applicable (see Page 5 of 5)	Not Applicable (see Page 5 of 5)

[a] Describe all indicators to be monitored which satisfies 40 CFR §64.3(a). Indicators of emission control performance for the control device and associated capture system may include measured or predicted emissions (including visible emissions or opacity), process and control device operating parameters that affect control device (and capture system) efficiency or emission rates, or recorded findings of inspection and maintenance activities.

[b] Indicator Ranges may be based on a single maximum or minimum value or at multiple levels that are relevant to distinctly different operating conditions, expressed as a function of process variables, expressed as maintaining the applicable indicator in a particular operational status or designated condition, or established as interdependent between more than one indicator. For CEMS, COMS, or PEMS, include the most recent certification test for the monitor.

[c] The verification for operational status should include procedures for installation, calibration, and operation of the monitoring equipment, conducted in accordance with the manufacturer's recommendations, necessary to confirm the monitoring equipment is operational prior to the commencement of the required monitoring.

[d] Emission units with post-control PTE $\geq$ 100 percent of the amount classifying the source as a major source (i.e., Large PSEU) must collect four or more values per hour to be averaged. A reduced data collection frequency may be approved in limited circumstances. Other emission units must collect data at least once per 24 hour period.

RATIONALE AND JUSTIFICATION

Complete this section for **EACH** PSEU that needs to be addressed in this CAM plan submittal. This section may be copied as needed for each PSEU. This section is to be used to provide rationale and justification for the selection of EACH indicator and monitoring approach and EACH indicator range in order to meet the submittal requirements specified in 40 CFR §64.4.

6a) PSEU Designation:	6b) Regulated Air Pollutant:
001-006	VOC, HAP's

7) **INDICATORS AND THE MONITORING APPROACH**: Provide the rationale and justification for the selection of the indicators and the monitoring approach used to measure the indicators. Also provide any data supporting the rationale and justification. Explain the reasons for any differences between the verification of operational status or the quality assurance and control practices proposed, and the manufacturer's recommendations. (If additional space is needed, attach and label accordingly with the appropriate PSEU designation and pollutant):

The manufacturer (JATCO, Inc) based the condenser design on a temperature rise of 10° F. The condenser vapor outlet temperature should not be greater than 10° F above the condenser glycol inlet temperature. Based on the manufacturer's experience, a greater temperature rise would indicate that proper condensing of the inlet vapor is not occurring within the condenser leading to reduced condenser efficiency.

The manufacturer recommends that the condenser vapor outlet pressure be monitored to ensure that the outlet pressure does not exceed 2 ounces per square inch of pressure. Greater pressure will indicate that proper condensing of the inlet vapor is not occurring within the condenser reducing condenser efficiency. This recommendation to monitor the vapor outlet pressure is based on manufacturer's experience

8) **INDICATOR RANGES**: Provide the rationale and justification for the selection of the indicator ranges. The rationale and justification shall indicate how **EACH** indicator range was selected by either a COMPLIANCE OR PERFORMANCE TEST, a TEST PLAN AND SCHEDULE, or by ENGINEERING ASSESSMENTS. Depending on which method is being used for each indicator range, include the specific information required below for that specific indicator range. (If additional space is needed, attach and label accordingly with the appropriate PSEU designation and pollutant):

- COMPLIANCE OR PERFORMANCE TEST (Indicator ranges determined from control device operating parameter data obtained during a compliance or performance test conducted under regulatory specified conditions or under conditions representative of maximum potential emissions under anticipated operating conditions. Such data may be supplemented by engineering assessments and manufacturer's recommendations). The rationale and justification shall INCLUDE a summary of the compliance or performance test results that were used to determine the indicator range, and documentation indicating that no changes have taken place that could result in a significant change in the control system performance or the selected indicator ranges since the compliance or performance test was conducted.

- TEST PLAN AND SCHEDULE (Indicator ranges will be determined from a proposed implementation plan and schedule for installing, testing, and performing any other appropriate activities prior to use of the monitoring). The rationale and justification shall INCLUDE the proposed implementation plan and schedule that will provide for use of the monitoring as expeditiously as practicable after approval of this CAM plan, except that in no case shall the schedule for completing installation and beginning operation of the monitoring exceed 180 days after approval.

- ENGINEERING ASSESSMENTS (Indicator Ranges or the procedures for establishing indicator ranges are determined from engineering assessments and other data, such as manufacturers' design criteria and historical monitoring data, because factors specific to the type of monitoring, control device, or PSEU make compliance or performance testing unnecessary). The rationale and justification shall INCLUDE documentation demonstrating that compliance testing is not required to establish the indicator range.

RATIONALE AND JUSTIFICATION:

The range of 10° F temperature rise between glycol inlet and vapor outlet is the manufacturer's design bases. A temperature rise beyond 10° F would indicate reduced condenser efficiency.

A static pressure of greater than 2 ounces per square inch at the condenser vapor outlet will indicate reduced condensing of vapor within the condenser and will, in accordance to the manufacturer, result in reduced condenser efficiency.

MONITORING FREQUENCY (Indicators No. 1 and No. 2)

A minimum frequency should be acceptable since, due to consistent wet gas temperature, no control excursion is anticipated. The consistent wet gas temperature should result in a fairly constant temperature of rich glycol to the condenser. Also, the anticipated consistent heat input to the burner should result in a fairly constant temperature and pressure of vapor leaving the burner and entering the condenser. This frequency, however, is not to be less than required by 40 CFR §64.3(b)(4)(iii) which states that the minimum frequency of data collection is to be once per 24-hour period.

If an upset condition is detected during weekly monitoring, continuous monitoring will be required while corrective action is being taken.

AVERAGING PERIOD (Indicators No. 1 and No. 2)

With a monitoring frequency of once per 24-hour period, data averaging would not be applicable for the purpose of determining whether an excursion has occurred and for determining if corrective action is required.

APPENDIX

ELECTRONIC SUBMITTAL