INTERNAL PERMITTING DOCUMENT TRACKING MANIFEST

Company Name **Eureka Midstream, LLC**

Permitting Action Number R13-3007E Total Days 49 DAQ Days 21

Permitting Action:

- ○ Permit Determination
- ○ General Permit
- ○ Administrative Update
- ○ Temporary
- ○ Relocation
- ○ Construction
- ✓ Modification
- ○ PSD (Rule 14)
- ○ NNSR (Rule 19)

Documents Attached:

- ✓ Engineering Evaluation/Memo
- ✓ Draft Permit
- ✓ Notice
- ○ Denial
- ○ Final Permit/General Permit Registration
- ○ Completed Database Sheet
- ○ Withdrawal
- ○ Letter
- ○ Other *(specify)*

Date	From	To	Action Requested
8/11/2016	Jerry OK	Bev	Please review and approve to go to public notice.
8/17	Bev	Jerry	Go to Notice
8/17	Jerry	Sarah	Approved for Notice JW

NOTE: Retain a copy of this manifest for your records when transmitting your document(s).

Permit / Application Information Sheet
Division of Environmental Protection
West Virginia Office of Air Quality

Company:	Eureka Midstream, LLC			**Facility:**	Carbide Site
Region:	2	**Plant ID:**	103-00049	**Application #:**	13-3007E
Engineer:	Williams, Jerry			**Category:**	Gas Comp
Physical Address:	15448 Shortline Hwy Hastings WV 26149			**SIC:** [1311] OIL AND GAS EXTRACTION - CRUDE PETROLEUM & NATURAL GAS **NAICS:** [211111] Crude Petroleum and Natural Gas Extraction	
County:	Wetzel				
Other Parties:	Consultant - Dhonau, Roger 412-221-1100 OPER_MGR - Akers, Chris 740-868-1325				

Information Needed for Database and AIRS
1. Need valid physical West Virginia address with zip

Regulated Pollutants

Summary from this Permit 13-3007E

Air Programs		Applicable Regulations
		13 16 22 60 K b
Fee Program	**Fee**	**Application Type**
8D	$2,000.00	MODIFICATION

Notes from Database
Permit MM Note: Modification for replacement of control equipment and installation of smaller condensate tanks.

Activity Dates

APPLICATION RECIEVED	06/23/2016
ASSIGNED DATE	06/24/2016
APPLICATION FEE PAID	06/29/2016
APPLICANT PUBLISHED LEGAL AD	06/29/2016
ADDITIONAL INFO RECEIVED	07/05/2016
ADDITIONAL INFO REQUESTED	07/18/2016
ADDITIONAL INFO RECEIVED	07/18/2016
APPLICATION DEEMED COMPLETE	07/21/2016

NON-CONFIDENTIAL

Please note, this information sheet is not a substitute for file research and is limited to data entered into the AIRTRAX database.

Company ID: 103-00049
Company: Eureka Midstream, LLC
Printed: 08/11/2016
Engineer: Williams, Jerry

Engineer	Jerry Williams, P.E.
Email Address	jerry.williams@wv.gov
Company Name	Eureka Midstream, LLC
Company ID	103-00049
Facility Name	Carbide Site
Permit Number	R13-3007E
County	Wetzel
Newspaper	*Wetzel Chronicle*
Company Email and "Attention To:"	Chris Akers cakers@ehp.energy
Environmental Contact Email Address	Roger A. Dhonau rdhonau@se-env.com
Regional Office (if applicable)	NA
New or Modified Source?	modified
Construction, Modification, or Relocation?	modification
Type of Facility	natural gas compressor station
"Located" or "To Be Located"?	located
Place where I can find electronic versions of your notice, engineering evaluation, and draft permit	Q:\AIR_QUALITY\J_Willi\\Permit Applications Under Review\Eureka Hunter Pipeline, LLC\R13-3007E Carbide Site

AIR QUALITY PERMIT NOTICE

Notice of Intent to Approve

On June 23, 2016, Eureka Midstream, LLC applied to the WV Department of Environmental Protection, Division of Air Quality (DAQ) for a permit to modify a natural gas compressor facility located on Union Carbide Road (20/12), Hastings, Wetzel County, WV at latitude 39.539566 and longitude -80.665584. A preliminary evaluation has determined that all State and Federal air quality requirements will be met by the proposed facility. The DAQ is providing notice to the public of its preliminary determination to issue the permit as R13-3007E.

The following increase in potential emissions will be authorized by this permit action: Oxides of Nitrogen, 0.58 tons per year (TPY); Carbon Monoxide, 13.29 TPY; Volatile Organic Compounds, 40.36 TPY; Total Hazardous Air Pollutants, 4.44 TPY; Carbon Dioxide Equivalents, 3,180 TPY.

The following decrease in potential emissions will be authorized by this permit action: Particulate Matter less than 10 microns, 0.08 tons per year (TPY); Sulfur Dioxide, 0.01 TPY; Formaldehyde, 0.29 TPY.

Written comments or requests for a public meeting must be received by the DAQ before 5:00 p.m. on (Day of Week, Month, Day, Year). A public meeting may be held if the Director of the DAQ determines that significant public interest has been expressed, in writing, or when the Director deems it appropriate.

The purpose of the DAQ's permitting process is to make a preliminary determination if the proposed modification will meet all state and federal air quality requirements. The purpose of the public review process is to accept public comments on air quality issues relevant to this determination. Only written comments received at the address noted below within the specified time frame, or comments presented orally at a scheduled public meeting, will be considered prior to final action on the permit. All such comments will become part of the public record.

Jerry Williams, P.E.
WV Department of Environmental Protection
Division of Air Quality
601 57th Street, SE
Charleston, WV 25304
Telephone: 304/926-0499, ext. 1223
FAX: 304/926-0478

Additional information, including copies of the draft permit, application and all other supporting materials relevant to the permit decision may be obtained by contacting the engineer listed above. The draft permit and engineering evaluation can be downloaded at:

www.dep.wv.gov/daq/Pages/NSRPermitsforReview.aspx

west virginia department of environmental protection

Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Phone (304) 926-0475 • FAX: (304) 926-0479

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

ENGINEERING EVALUATION / FACT SHEET

BACKGROUND INFORMATION

Application No.:	R13-3007E
Plant ID No.:	103-00049
Applicant:	Eureka Midstream, LLC (Eureka)
Facility Name:	Carbide Site
Location:	Hastings, Wetzel County
NAICS Code:	211111 (Natural Gas Extraction)
Application Type:	Modification
Received Date:	June 23, 2016
Engineer Assigned:	Jerry Williams, P.E.
Fee Amount:	$2,000
Date Received:	June 30, 2016
Complete Date:	July 21, 2016
Due Date:	October 19, 2016
Applicant Ad Date	June 29, 2016
Newspaper:	*The Wetzel Chronicle*
UTM's:	Easting: 528.737 km Northing: 4,376.709 km Zone: 17
Latitude:	39.5396
Longitude:	-80.6656
Description:	Modification for replacement of control equipment and installation of smaller condensate tanks.

DESCRIPTION OF PROCESS

The following process description was taken from Permit Application R13-3007E:

This natural gas liquids management and gas compression facility currently operates under permit R13-3007D. Raw gas and produced liquids are received at this facility from local production wells via three pipelines entering the station: 8-inch, 12-inch and 20-inch lines. The following presents an overview of the operations at this facility and a description of the proposed changes Eureka is seeking to permit.

High pressure gas is received via the 20-inch line, passed through a slug catcher and then returned to this high pressure gas line for transportation to a regional natural gas processing facility owned and operated by others. This gas is not passed through any other processes at this facility.

Low pressure inlet gas is received via a 12-inch pipeline and passed through an inlet separator, compressed, dehydrated, blended with the high pressure gas and injected into the 20-inch pipeline for transportation to the regional natural gas processing facility. Liquids separated from this gas stream are sent through a line heater and then to a three-way separator where the pressure is reduced, allowing dissolved gases to flash off. This flash gas is compressed and re-blended with the low pressure inlet gas. The remaining liquids are separated into organic (condensate) and water phases.

Produced Liquids are received at the facility via an 8-inch liquids line. These liquids are mostly produced water (brine), but also contain condensate. This liquid is passed through a line heater and a three-way inlet separator where the pressure is reduced, allowing entrained gas to flash off. This flash gas is also routed to the flash gas compressor referenced above and blended with the low pressure inlet gas prior to compression. The three-way separator also separates the water (brine) and organic phases (condensate), routing them to separate accumulation tanks. Brine is accumulated in a single 2 million gallon tank. This brine is re-used by others for development of wells, thereby minimizing the demand for fresh water for that purpose.

Condensate is currently accumulated in a series of ten 630 BBL tanks prior to truck transportation to others for further processing. Emissions from these atmospheric pressure tanks are collected and compressed by a vapor recovery unit (VRU) where the vapors are sufficiently compressed to be introduced into the low pressure inlet gas line and processed with the low pressure inlet gas.

As noted above, condensate is taken from this facility by tanker truck to a nearby processing plant (owned and operated by others) for processing into individual chemical products. Volatile Organic Compound (VOC) emissions generated during the truck loading process is managed by an enclosed combustor.

Eureka is seeking the following three changes to the operations described above:

Truck Loading Combustor Upgrade

Eureka is seeking to modify its permit to reflect the replacement of the existing enclosed combustor with a larger unit. It was determined that while the current unit was adequately sized for daily and annual demands, it was undersized for peak demand during the initial phases of the condensate truck loading process. Upon discovery, it was immediately replaced with a larger unit capable of better handling the peak demand to ensure safe operation during truck loading of condensate. The annual maximum loading to this unit (and subsequent annual emissions) will not change as there is no request to change the annual allowable limit on condensate truck loading or capture and control efficiencies.

Condensate Tanks Replacement

In 2012, the original general permit registration was replaced with an R13 permit when the current series of ten 630 BBL condensate tanks and associated VRU control were installed. In 2015 an EPA Region III evaluation of the tanks determined that the safety relief vents were undersized and placed Eureka under a Consent Agreement (provided at the end of this Attachment) to upgrade the safety relief vents to properly sized units. Eureka determined that the safest approach was to replace the tanks entirely rather than attempt to modify the existing tanks.

ESTIMATE OF EMISSIONS BY REVIEWING ENGINEER

Emissions associated with this modification consist of the equipment listed in the following table. The following table indicates which methodology was used in the emissions determination:

Emission Unit ID#	Process Equipment	Calculation Methodology
S15-B	10.0 MMBTU/hr Truck Loading Vapor Combustion Unit	EPA AP-42 Emission Factors
S-15C	8.0 MMBTU/hr Truck Loading Vapor Combustion Unit Pilot	EPA AP-42 Emission Factors
T33 – T40	Eight (8) 500 bbl Condensate Tanks	ProMax
S21A – S21D	Four (4) 10.0 MMBTU/hr Enclosed Combustors	EPA AP-42 Emission Factors
S22A – S22D	Four (4) 8.0 MMBTU/hr Enclosed Combustor Pilots	EPA AP-42 Emission Factors e

The following table indicates the control device efficiencies that are associated with this modification:

Emission Unit	Pollutant	Control Device	Control Efficiency
S15-B, S21A – S21D	Volatile Organic Compounds	Enclosed Combustors	98 %
	Hazardous Air Pollutants		98 %

The total facility PTE for the Carbide Site is shown in the following table:

Pollutant	R13-3007D PTE (tons/year)	R13-3007E PTE (tons/year)	PTE Change (tons/year)
Nitrogen Oxides	72.73	73.31	0.58
Carbon Monoxide	33.55	46.84	13.29
Volatile Organic Compounds	49.51	89.87	40.36
Particulate Matter-10/2.5	4.90	4.82	-0.08
Sulfur Dioxide	0.29	0.28	-0.01
Formaldehyde	8.35	8.06	-0.29
Total HAPs	14.77	19.21	4.44
Carbon Dioxide Equivalent	70,613	73,793	3,180

Maximum detailed controlled point source emissions were calculated by Eureka and checked for accuracy by the writer and are summarized in the table on the next page.

Eureka Midstream, LLC – Carbide Site (R13-3007E)

Emission	Source	NO_x		CO		VOC		PM-10		SO_2		Formaldehyde		Total HAPs		CO2e
Point ID#		lb/hr	ton/year	lb/hr	ton/year	lb/hr	ton/year	lb/hr	ton/year	lb/hr	ton/year	lb/hr	ton/year	lb/hr	ton/year	ton/year
E1	CAT 3516B Compressor Engine	1.52	6.66	0.61	2.67	1.00	4.40	0.10	0.45	0.01	0.03	0.18	0.80	0.30	1.30	6655
E2	CAT 3516B Compressor Engine	1.52	6.66	0.61	2.67	1.00	4.40	0.10	0.45	0.01	0.03	0.18	0.80	0.30	1.30	6655
E3	CAT 3516B Compressor Engine	1.52	6.66	0.61	2.67	1.00	4.40	0.10	0.45	0.01	0.03	0.18	0.80	0.30	1.30	6655
E4	CAT 3516B Compressor Engine	1.52	6.66	0.61	2.67	1.00	4.40	0.10	0.45	0.01	0.03	0.18	0.80	0.30	1.30	6655
E5A	CAT 3406NA Compressor Engine	0.46	2.02	0.46	2.02	0.06	0.28	0.02	0.08	0.00	0.00	0.07	0.29	0.09	0.38	1230
E7	Dehy Unit (Reboiler and Still Vent)	0.15	0.67	0.13	0.56	0.23	1.01	0.01	0.05	0.00	0.00	0.00	0.00	0.03	0.14	804
E8	CAT 3516B Compressor Engine	1.52	6.66	0.61	2.67	1.00	4.40	0.10	0.45	0.01	0.03	0.18	0.80	0.30	1.30	6655
E9	CAT 3516B Compressor Engine	1.52	6.66	0.61	2.67	1.00	4.40	0.10	0.45	0.01	0.03	0.18	0.80	0.30	1.30	6649
E10	CAT 3516B Compressor Engine	1.52	6.66	0.61	2.67	1.00	4.40	0.10	0.45	0.01	0.03	0.18	0.80	0.30	1.30	6649
E11	CAT 3516B Compressor Engine	1.52	6.66	0.61	2.67	1.00	4.40	0.10	0.45	0.01	0.03	0.18	0.80	0.30	1.30	6649
E16	Truck Loading	0.00	0.00	0.00	0.00	0.49	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
E16-A	Truck Loading VCU	0.21	0.06	1.13	0.31	3.00	0.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	98
E16-B	TL VCU Pilot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2
E17	0.75 MMBTU/hr Line Heater	0.08	0.33	0.06	0.28	0.00	0.02	0.01	0.03	0.00	0.00	0.00	0.00	0.00	0.01	397
E17-A	4.0 MMBTU/hr Line Heater	0.40	1.75	0.34	1.47	0.02	0.10	0.03	0.13	0.00	0.01	0.00	0.00	0.01	0.03	2116
E17-B	2.0 MMBTU/hr Line Heater	0.20	0.88	0.17	0.74	0.01	0.05	0.02	0.07	0.00	0.01	0.00	0.00	0.00	0.02	1058
E20	CAT 3608B Compressor Engine	2.61	11.44	1.04	4.58	1.72	7.55	0.16	0.71	0.01	0.04	0.31	1.37	0.49	2.16	10101
E21	VCUs (8 Condensate Tanks)	1.96	2.87	10.66	15.57	27.57	40.23	0.02	0.10	0.00	0.00	0.00	0.00	4.17	6.08	4947
Total Point Source		**18.24**	**73.31**	**18.86**	**46.84**	**41.11**	**85.79**	**1.08**	**4.82**	**0.07**	**0.28**	**1.84**	**8.06**	**7.17**	**19.21**	**73973**
Fugitive	Component Leaks	0.00	0.00	0.00	0.00	0.54	2.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Fugitive	Pigging & Blowdowns	0.00	0.00	0.00	0.00	NA	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Total Fugitive		**0.00**	**0.00**	**0.00**	**0.00**	**0.54**	**4.08**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0**
Total Sitewide		**18.24**	**73.31**	**18.86**	**46.84**	**41.65**	**89.87**	**1.08**	**4.82**	**0.07**	**0.28**	**1.84**	**8.06**	**7.17**	**19.21**	**73973**

REGULATORY APPLICABILITY

The following rules apply to this modification:

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

A 45CSR13 modification permit applies to this source due to the fact that Eureka exceeds the regulatory emission threshold for uncontrolled criteria pollutants increase of 6 lb/hr and 10 ton/year of volatile organic compounds.

Eureka paid the appropriate application fee and published the required legal advertisement for a modification permit application.

45CSR16 (Standards of Performance for New Stationary Sources Pursuant to 40 CFR Part 60)

45CSR16 applies to this source by reference of 40CFR60, Subpart OOOOa. These requirements are discussed under that rule below.

45CSR22 (Air Quality Management Fee Program)

Eureka is not subject to 45CSR30. The Carbide Site is subject to 40CFR60 Subpart OOOOa, however they are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71, provided they are not required to obtain a permit for a reason other than their status as an area source.

Eureka is required to pay the appropriate annual fees and keep their Certificate to Operate current.

40CFR60 Subpart Kb (Standards of Performance for VOC Liquid Storage Vessels)

The affected facility to which this subpart applies is each storage vessel with a capacity greater than or equal to 75 cubic meters (m^3) (19,813 gallons) that is used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification is commenced after July 23, 1984. This subpart does not apply to storage vessels with a capacity greater than or equal to 151 m^3 storing a liquid with a maximum true vapor pressure less than 3.5 kilopascals (kPa) or with a capacity greater than or equal to 75 m^3 but less than 151 m^3 storing a liquid with a maximum true vapor pressure less than 15.0 kPa. This subpart also does not apply to pressure vessels designed to operate in excess of 204.9 kPa and without emissions to the atmosphere. The only tanks that Eureka has proposed to install that exceed this size are 21,000 gallon (79.49 cubic meter) condensate tanks. Therefore, Eureka would be subject to this rule. These tanks will have a closed vent system and vapors will be sent to the vapor recovery unit.

40CFR60 Subpart OOOOa (Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution for which Construction, Modification or Reconstruction Commenced after September 18, 2015)

EPA published its New Source Performance Standards (NSPS) and air toxics rules for the oil and gas sector on August 16, 2012. EPA published amendments to the Subpart on September 23, 2013 and June 3, 2016. 40CFR60 Subpart OOOOa establishes emission standards and compliance schedules for the control of the pollutant greenhouse gases (GHG). The greenhouse gas standard in this subpart is in the form of a limitation on emissions of methane from affected facilities in the crude oil and natural gas source category that commence construction, modification or reconstruction after September 18, 2015. This subpart also establishes emission standards and compliance schedules for the control of volatile organic compounds (VOC) and sulfur dioxide (SO_2) emissions from affected facilities that commence construction, modification or reconstruction after September 18, 2015. The effective date of this rule is August 2, 2016.

This subpart does include requirements for storage tanks that have a VOC potential of 6 tpy or greater that are located at natural gas production facilities. 40 CFR §60.5365(e) states that the potential must be calculated using a generally accepted model or calculation methodology, based on the maximum average daily throughput determined for a 30-day period of production prior to the applicable emission determination deadline. For the new installation of the condensate storage tanks, this time period would be the first 30 days the vessel was placed into service. Therefore, the permit will require the applicant to record the daily production of pipeline fluids from the station being stored in the new vessel for the first 30 days of being in service and determine if the potential VOC emissions from the vessel, which includes the flash, working, and breathing loses, are at or greater than 6 tpy. If the VOC emissions is at or greater than 6 tpy, the vessel is an affected Group 2 source under this rule and the permittee will be required to reduce the VOC emissions from the storage vessel by 95%.

Additionally, in regards to fugitive emissions for each affected facility under §60.5365a(j), Eureka must reduce GHG (in the form of a limitation on emissions of methane) and VOC emissions by complying with the requirements of paragraphs (a) through (j) of §60.5397a. These requirements are independent of the closed vent system and cover requirements in §60.5411a. These leak surveys must be conducted four (4) times per year.

The following rules do not apply to this modification:

45CSR14 (Permits for Construction and Major Modification of Major Stationary Sources of Air Pollutants)

45CSR19 (Permits for Construction and Major Modification of Major Stationary Sources of Air Pollution which Cause or Contribute to Nonattainment)

The Carbide Site is located in Wetzel County, which is an unclassified county for all criteria pollutants, therefore the Carbide Site is not applicable to 45CSR19.

As shown in the following table, Eureka is not a major source subject to 45CSR14 or 45CSR19 review. According to 45CSR14 Section 2.43.e, fugitive emissions are not included in the major source determination because it is not listed as one of the source categories in Table 1. Therefore, the fugitive emissions are not included in the PTE below.

Pollutant	**PSD (45CSR14) Threshold (tpy)**	**NANSR (45CSR19) Threshold (tpy)**	**Carbide Site PTE (tpy)**	**45CSR14 or 45CSR19 Review Required?**
Carbon Monoxide	250	NA	46.84	No
Nitrogen Oxides	250	NA	73.31	No
Sulfur Dioxide	250	NA	0.28	No
Particulate Matter 2.5	250	NA	4.82	No
Ozone (VOC)	250	NA	85.79	No

45CSR30 (Requirements for Operating Permits)

Eureka is not subject to 45CSR30. The Carbide Site is subject to 40CFR60 Subparts JJJJ, OOOO and OOOOa, however they are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71, provided they are not required to obtain a permit for a reason other than their status as an area source.

TOXICITY OF NON-CRITERIA REGULATED POLLUTANTS

The majority of non-criteria regulated pollutants fall under the definition of HAPs which, with some revision since, were 188 compounds identified under Section 112(b) of the Clean Air Act (CAA) as pollutants or groups of pollutants that EPA knows or suspects may cause cancer or other serious human health effects. Small amounts of non-criteria regulated hazardous air pollutants such as BTEX and formaldehyde may be emitted when natural gas is combusted in reciprocating engines, combusted in the fuel burning units, or combusted in one of the combustion type air pollution control devices.

BTEX
BTEX is the term used for benzene, toluene, ethylbenzene, and xylene. Each of these possible hazardous air pollutants are identified in this section.

Benzene
Benzene is found in the air from emissions from burning coal and oil, gasoline service stations, and motor vehicle exhaust. Acute (short-term) inhalation exposure of humans to benzene may cause drowsiness, dizziness, headaches, as well as eye, skin, and respiratory tract irritation, and, at high levels, unconsciousness. Chronic (long-term) inhalation exposure has caused various disorders in the blood, including reduced numbers of red blood cells and aplastic anemia, in occupational settings. Reproductive effects have been reported for women exposed by inhalation to high levels, and adverse effects on the developing fetus have been observed in animal tests. Increased incidence of leukemia (cancer of the tissues that form white blood cells) have been observed in humans occupationally exposed to benzene. EPA has classified benzene as a Group A, human carcinogen.

Toluene
The acute toxicity of toluene is low. Toluene may cause eye, skin, and respiratory tract irritation. Short-term exposure to high concentrations of toluene (e.g., 600 ppm) may produce fatigue, dizziness, headaches, loss of coordination, nausea, and stupor; 10,000 ppm may cause death from respiratory failure. Ingestion of toluene may cause nausea and vomiting and central nervous system depression. `Contact of liquid toluene with the eyes causes temporary irritation. Toluene is a skin irritant and may cause redness and pain when trapped beneath clothing or shoes; prolonged or repeated contact with toluene may result in dry and cracked skin. Because of its odor and irritant effects, toluene is regarded as having good warning properties. The chronic effects of exposure to toluene are much less severe than those of benzene. No carcinogenic effects were reported in animal studies. Equivocal results were obtained in studies to determine developmental effects in animals. Toluene was not observed to be mutagenic in standard studies.

Ethylbenzene
Ethyl benzene is mainly used in the manufacturing of styrene. Acute (short-term) exposure to ethyl benzene in humans results in respiratory effects, such as throat irritation and chest constriction, irritation of the eyes, and neurological effects, such as dizziness. Chronic (long-term) exposure to ethyl benzene by inhalation in humans has shown conflicting results regarding its effects on the blood. Animal studies have reported effects on the blood, liver, and kidneys from chronic inhalation exposure to ethyl benzene. Limited information is available on the carcinogenic effects of ethyl benzene in humans. In a study by the National Toxicology Program (NTP), exposure to ethyl benzene by inhalation resulted in an increased incidence of kidney and

testicular tumors in rats, and lung and liver tumors in mice. EPA has classified ethyl benzene as a Group D, not classifiable as to human carcinogenicity.

Xylenes
Commercial or mixed xylene usually contains about 40-65% m-xylene and up to 20% each of o-xylene and p-xylene and ethyl benzene. Xylenes are released into the atmosphere as fugitive emissions from industrial sources, from auto exhaust, and through volatilization from their use as solvents. Acute (short-term) inhalation exposure to mixed xylenes in humans results in irritation of the eyes, nose, and throat, gastrointestinal effects, eye irritation, and neurological effects. Chronic (long-term) inhalation exposure of humans to mixed xylenes results primarily in central nervous system (CNS) effects, such as headache, dizziness, fatigue, tremors, and incoordination; respiratory, cardiovascular, and kidney effects have also been reported. EPA has classified mixed xylenes as a Group D, not classifiable as to human carcinogenicity. Mixed xylenes are used in the production of ethylbenzene, as solvents in products such as paints and coatings, and are blended into gasoline.

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

All HAPs have other non-carcinogenic chronic and acute effects. These adverse health effects may be associated with a wide range of ambient concentrations and exposure times and are influenced by source-specific characteristics such as emission rates and local meteorological conditions. Health impacts are also dependent on multiple factors that affect variability in humans such as genetics, age, health status (e.g., the presence of pre-existing disease) and lifestyle. As stated previously, *there are no federal or state ambient air quality standards for these specific chemicals*. For a complete discussion of the known health effects of each compound refer to the IRIS database located at *www.epa.gov/iris*.

AIR QUALITY IMPACT ANALYSIS

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

SOURCE AGGREGATION

"Building, structure, facility, or installation" is defined as all the pollutant emitting activities which belong to the same industrial grouping, are located on one or more contiguous and adjacent properties, and are under the control of the same person.

The Source Determination Rule for the oil and gas industry was published in the Federal Register on June 3, 2016 and will become effective on August 2, 2016. EPA defined the term "adjacent" and stated that equipment and activities in the oil and gas sector that are under common control will be considered part of the same source if they are located on the same site or on sites that share equipment and are within ¼ mile of each other.

The Carbide Site will operate under SIC code 1311 (Natural Gas Extraction). There are other compressor stations operated by Eureka that share the same two-digit major SIC code of 13 for natural gas extraction. Therefore, the Carbide Site does share the same SIC code as other Eureka compressor stations.

"Contiguous or Adjacent" determinations are made on a case by case basis. There are no other equipment and activities in the oil and gas sector that are under common control of Eureka that are located on the same site or on sites that share equipment and are within ¼ mile of each other.

Because the Carbide Site is not located on contiguous or adjacent properties with other facilities under common control, the emissions from this facility shall not be aggregated with other facilities for the purposes of making Title V and PSD determinations.

MONITORING OF OPERATIONS

Eureka will be required to perform the following monitoring and recordkeeping associated with this permit application:

- Monitor and record quantity of natural gas consumed for all combustion sources.
- Monitor visible emission opacity tests conducted per the permit.
- Monitor and record quantity of gas throughput to the glycol dehydration unit.
- Monitor the tanks to ensure that all vapors from the produced fluids tanks and the truck loading operation are sent to the vapor recovery unit.
- Monitor the condensate truck loading to ensure that vapor return/combustion is used.
- Maintain records of testing conducted in accordance with the permit. Said records shall be maintained on-site or in a readily accessible off-site location
- Maintain the corresponding records specified by the on-going monitoring requirements of and testing requirements of the permit.
- Maintain a record of all potential to emit (PTE) HAP calculations for the entire facility. These records shall include the natural gas compressor engines and ancillary equipment.
- The records shall be maintained on site or in a readily available off-site location maintained by Eureka for a period of five (5) years.

CHANGES TO PERMIT R13-3007D

- List new equipment and control devices in the Emission Units Table.
- Restructure permit to include all applicable emission units and regulations.
- Inclusion of 40CFR60 Subpart OOOOa LDAR as permit condition 4.1.5.
- Removal of engines S6A, S12 and S13.
- Addition of 40CFR60 Subpart Kb requirements which were applicable to storage tanks but not included in the previous permit.

RECOMMENDATION TO DIRECTOR

The information provided in the permit application indicates that Eureka meets all the requirements of applicable regulations. Therefore, impact on the surrounding area should be minimized and it is recommended that the Carbide Site should be granted a 45CSR13 modification permit for their facility.

Jerry Williams, P.E.
Engineer

8/11/2016
Date

West Virginia Department of Environmental Protection

Earl Ray Tomblin
Governor

Division of Air Quality

Randy C. Huffman
Cabinet Secretary

Permit to Modify

R13-3007E

This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§22-5-1 et seq.) and 45 C.S.R. 13 – Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation. The permittee identified at the above-referenced facility is authorized to construct the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.

Issued to:

Eureka Midstream, LLC
Carbide Site
103-00049

William F. Durham
Director

Issued: Draft

This permit will supersede and replace Permit R13-3007D issued on April 12, 2016.

Facility Location:	Hastings, Wetzel County, West Virginia
Mailing Address:	27710 State Route 7 Marietta, Ohio 45750
Facility Description:	Natural Gas Compression Station
NAICS Codes:	211111
UTM Coordinates:	528.737 km Easting • 4,376.709 km Northing • Zone 17
Permit Type:	Modification
Description of Change:	Replacement of control equipment and installation of smaller condensate tanks.

Any person whose interest may be affected, including, but not necessarily limited to, the applicant and any person who participated in the public comment process, by a permit issued, modified or denied by the Secretary may appeal such action of the Secretary to the Air Quality Board pursuant to article one [§§22B-1-1 et seq.], Chapter 22B of the Code of West Virginia. West Virginia Code §§22-5-14.

The source is not subject to 45CSR30.

Table of Contents

1.0. Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
S1	E1	Caterpillar G3516B Engine	2012	1,380 bhp	C1/OxCat
S2	E2	Caterpillar G3516B Engine	2012	1,380 bhp	C2/OxCat
S3	E3	Caterpillar G3516B Engine	2012	1,380 bhp	C3/OxCat
S4	E4	Caterpillar G3516B Engine	2012	1,380 bhp	C4/OxCat
S5A	E5A	Caterpillar 3406 NA Engine	2012	215 bhp	C5A/NSCR
S7	E7	Reboiler Vent	2012	80 MMCF/day 1.5 MMBTU/hr	None
S8	E8	Caterpillar G3516B Engine	2013	1,380 bhp	C8/OxCat
S9	E9	Caterpillar G3516B Engine	2013	1,380 bhp	C9/OxCat
S10	E10	Caterpillar G3516B Engine	2013	1,380 bhp	C10/OxCat
S11	E11	Caterpillar G3516B Engine	2013	1,380 bhp	C11/OxCat
S14	E16	Truck Loading (uncaptured)	2014	4,600,00 gallons/year	VCU-1 (S15)
S15	E16	Truck Loading	2014	4,600,000 gallons/year	Vapor Combustor
S15-B	E16-A	Truck Loading VCU	2016	10 MMBTU/hr	NA
S15-C	E16-B	Truck Loading VCU Pilot	2016	8.0 MMBTU/hr	NA
S17	E17	Line Heater	2013	0.75 MMBTU/hr	None
S17-A	E17-A	Line Heater	2016	4 MMBTU/hr	None
S17-B	E17-B	Line Heater	2016	2 MMBTU/hr	None
S18	E18	Pigging and Blowdowns	2012	Not Applicable	None
S20	E20	Caterpillar G3608 Compressor Engine	2015	2,370 bhp	C20/OxCat
T33	E21	Condensate Tank	2016	500 bbl	VCU-2
T34	E21	Condensate Tank	2016	500 bbl	VCU-2
T35	E21	Condensate Tank	2016	500 bbl	VCU-2
T36	E21	Condensate Tank	2016	500 bbl	VCU-2
T37	E21	Condensate Tank	2016	500 bbl	VCU-2
T38	E21	Condensate Tank	2016	500 bbl	VCU-2
T39	E21	Condensate Tank	2016	500 bbl	VCU-2
T40	E21	Condensate Tank	2016	500 bbl	VCU-2
S21-A	E21-A	Enclosed Combustor	2016	10 MMBTU/hr	NA
S21-B	E21-B	Enclosed Combustor	2016	10 MMBTU/hr	NA
S21-C	E21-C	Enclosed Combustor	2016	10 MMBTU/hr	NA
S21-D	E21-D	Enclosed Combustor	2016	10 MMBTU/hr	NA

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
S22-A	E21-A	Condensate Tank Combustor Pilot	2016	8 MMBTU/hr	NA
S22-B	E21-B	Condensate Tank Combustor Pilot	2016	8 MMBTU/hr	NA
S22-C	E21-C	Condensate Tank Combustor Pilot	2016	8 MMBTU/hr	NA
S22-D	E21-D	Condensate Tank Combustor Pilot	2016	8 MMBTU/hr	NA

1.1. Control Devices

Emission Unit	Pollutant	Control Device	Control Efficiency
S1 – S4 and S8 –S11 Caterpillar G3516B Compressor Engines	Carbon Monoxide	Oxidation Catalyst	93 %
	Volatile Organic Compounds		50 %
	Formaldehyde		86 %
S5A Three-way Separator Vapor Compressor Engine	Nitrogen Oxides	Non Selective Catalytic Reduction (NSCR)	94 %
	Carbon Monoxide		94 %
	Formaldehyde		50 %
S7 Regenerator Vapors	Volatile Organic Compounds	Reboiler	95 %
S15 and S15-A Truck Loading	Volatile Organic Compounds	Vapor Combustor (VCU-1)	98 %
S20 Caterpillar G3608 Compressor Engine	Carbon Monoxide	Oxidation Catalyst	92.7 %
	Volatile Organic Compounds		69.7 %
	Formaldehyde		76.9 %
T33 – T40 Condensate Tanks	Volatile Organic Compounds	Vapor Combustors (VCU-2)	98 %
	Hazardous Air Pollutants		98 %

2.0. General Conditions

2.1. Definitions

2.1.1. All references to the "West Virginia Air Pollution Control Act" or the "Air Pollution Control Act" mean those provisions contained in W.Va. Code §§ 22-5-1 to 22-5-18.

2.1.2. The "Clean Air Act" means those provisions contained in 42 U.S.C. §§ 7401 to 7671q, and regulations promulgated thereunder.

2.1.3. "Secretary" means the Secretary of the Department of Environmental Protection or such other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8 (45CSR§30-2.12.). The Director of the Division of Air Quality is the Secretary's designated representative for the purposes of this permit.

2.2. Acronyms

CAAA	Clean Air Act Amendments	**NO_x**	Nitrogen Oxides
CBI	Confidential Business Information	**NSPS**	New Source Performance Standards
CEM	Continuous Emission Monitor	**PM**	Particulate Matter
CES	Certified Emission Statement	**$PM_{2.5}$**	Particulate Matter less than 2.5 µm in diameter
C.F.R. *or* CFR	Code of Federal Regulations	**PM_{10}**	Particulate Matter less than 10µm in diameter
CO	Carbon Monoxide	**Ppb**	Pounds per Batch
C.S.R. *or* CSR	Codes of State Rules	**Pph**	Pounds per Hour
DAQ	Division of Air Quality	**Ppm**	Parts per Million
DEP	Department of Environmental Protection	**Ppm_v or ppmv**	Parts per Million by Volume
dscm	Dry Standard Cubic Meter	**PSD**	Prevention of Significant Deterioration
FOIA	Freedom of Information Act	**Psi**	Pounds per Square Inch
HAP	Hazardous Air Pollutant	**SIC**	Standard Industrial Classification
HON	Hazardous Organic NESHAP	**SIP**	State Implementation Plan
HP	Horsepower	**SO_2**	Sulfur Dioxide
lbs/hr	Pounds per Hour	**TAP**	Toxic Air Pollutant
LDAR	Leak Detection and Repair	**TPY**	Tons per Year
M	Thousand	**TRS**	Total Reduced Sulfur
MACT	Maximum Achievable Control Technology	**TSP**	Total Suspended Particulate
MDHI	Maximum Design Heat Input	**USEPA**	United States Environmental Protection Agency
MM	Million	**UTM**	Universal Transverse Mercator
MMBtu/hr *or* mmbtu/hr	Million British Thermal Units per Hour	**VEE**	Visual Emissions Evaluation
MMCF/hr *or* mmcf/hr	Million Cubic Feet per Hour	**VOC**	Volatile Organic Compounds
NA	Not Applicable	**VOL**	Volatile Organic Liquids
NAAQS	National Ambient Air Quality Standards		
NESHAPS	National Emissions Standards for Hazardous Air Pollutants		

2.3. Authority

This permit is issued in accordance with West Virginia air pollution control law W.Va. Code §§ 22-5-1. et seq. and the following Legislative Rules promulgated thereunder:

2.3.1. 45CSR13 – *Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation*;

2.4. Term and Renewal

2.4.1. This permit supersedes and replaces previously issued Permit R13-3007D. This Permit shall remain valid, continuous and in effect unless it is revised, suspended, revoked or otherwise changed under an applicable provision of 45CSR13 or any other applicable legislative rule;

2.5. Duty to Comply

2.5.1. The permitted facility shall be constructed and operated in accordance with the plans and specifications filed in Permit Application R13-3007 – R13-3007E, and any modifications, administrative updates, or amendments thereto. The Secretary may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to; **[45CSR§§13-5.11 and 10.3.]**

2.5.2. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the West Virginia Code and the Clean Air Act and is grounds for enforcement action by the Secretary or USEPA;

2.5.3. Violations of any of the conditions contained in this permit, or incorporated herein by reference, may subject the permittee to civil and/or criminal penalties for each violation and further action or remedies as provided by West Virginia Code 22-5-6 and 22-5-7;

2.5.4. Approval of this permit does not relieve the permittee herein of the responsibility to apply for and obtain all other permits, licenses, and/or approvals from other agencies; i.e., local, state, and federal, which may have jurisdiction over the construction and/or operation of the source(s) and/or facility herein permitted.

2.6. Duty to Provide Information

The permittee shall furnish to the Secretary within a reasonable time any information the Secretary may request in writing to determine whether cause exists for administratively updating, modifying, revoking, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records to be kept by the permittee. For information claimed to be confidential, the permittee shall furnish such records to the Secretary along with a claim of confidentiality in accordance with 45CSR31. If confidential information is to be sent to USEPA, the permittee shall directly provide such information to USEPA along with a claim of confidentiality in accordance with 40 C.F.R. Part 2.

2.7. Duty to Supplement and Correct Information

Upon becoming aware of a failure to submit any relevant facts or a submittal of incorrect information in any permit application, the permittee shall promptly submit to the Secretary such supplemental facts or corrected information.

2.8. Administrative Update

The permittee may request an administrative update to this permit as defined in and according to the procedures specified in 45CSR13.
[45CSR§13-4.]

2.9. Permit Modification

The permittee may request a minor modification to this permit as defined in and according to the procedures specified in 45CSR13.
[45CSR§13-5.4.]

2.10 Major Permit Modification

The permittee may request a major modification as defined in and according to the procedures specified in 45CSR14 or 45CSR19, as appropriate.
[45CSR§13-5.1]

2.11. Inspection and Entry

The permittee shall allow any authorized representative of the Secretary, upon the presentation of credentials and other documents as may be required by law, to perform the following:

a. At all reasonable times (including all times in which the facility is in operation) enter upon the permittee's premises where a source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

c. Inspect at reasonable times (including all times in which the facility is in operation) any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and

d. Sample or monitor at reasonable times substances or parameters to determine compliance with the permit or applicable requirements or ascertain the amounts and types of air pollutants discharged.

2.12. Emergency

2.12.1. An "emergency" means any situation arising from sudden and reasonable unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by

improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

2.12.2. Effect of any emergency. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions of Section 2.12.3 are met.

2.12.3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;

b. The permitted facility was at the time being properly operated;

c. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and

d. The permittee submitted notice of the emergency to the Secretary within one (1) working day of the time when emission limitations were exceeded due to the emergency and made a request for variance, and as applicable rules provide. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

2.12.4. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.

2.12.5 The provisions of this section are in addition to any emergency or upset provision contained in any applicable requirement.

2.13. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a permittee in an enforcement action that it should have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. However, nothing in this paragraph shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in determining penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operations.

2.14. Suspension of Activities

In the event the permittee should deem it necessary to suspend, for a period in excess of sixty (60) consecutive calendar days, the operations authorized by this permit, the permittee shall notify the Secretary, in writing, within two (2) calendar weeks of the passing of the sixtieth (60) day of the suspension period.

2.15. Property Rights

This permit does not convey any property rights of any sort or any exclusive privilege.

2.16. Severability

The provisions of this permit are severable and should any provision(s) be declared by a court of competent jurisdiction to be invalid or unenforceable, all other provisions shall remain in full force and effect.

2.17. Transferability

This permit is transferable in accordance with the requirements outlined in Section 10.1 of 45CSR13. **[45CSR§13-10.1.]**

2.18. Notification Requirements

The permittee shall notify the Secretary, in writing, no later than thirty (30) calendar days after the actual startup of the operations authorized under this permit.

2.19. Credible Evidence

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defense otherwise available to the permittee including, but not limited to, any challenge to the credible evidence rule in the context of any future proceeding.

3.0. Facility-Wide Requirements

3.1. Limitations and Standards

3.1.1. **Open burning.** The open burning of refuse by any person, firm, corporation, association or public agency is prohibited except as noted in 45CSR§6-3.1.
[45CSR§6-3.1.]

3.1.2. **Open burning exemptions.** The exemptions listed in 45CSR§6-3.1 are subject to the following stipulation: Upon notification by the Secretary, no person shall cause, suffer, allow or permit any form of open burning during existing or predicted periods of atmospheric stagnation. Notification shall be made by such means as the Secretary may deem necessary and feasible.
[45CSR§6-3.2.]

3.1.3. **Asbestos.** The permittee is responsible for thoroughly inspecting the facility, or part of the facility, prior to commencement of demolition or renovation for the presence of asbestos and complying with 40 C.F.R. § 61.145, 40 C.F.R. § 61.148, and 40 C.F.R. § 61.150. The permittee, owner, or operator must notify the Secretary at least ten (10) working days prior to the commencement of any asbestos removal on the forms prescribed by the Secretary if the permittee is subject to the notification requirements of 40 C.F.R. § 61.145(b)(3)(i). The USEPA, the Division of Waste Management, and the Bureau for Public Health - Environmental Health require a copy of this notice to be sent to them.
[40CFR§61.145(b) and 45CSR§34]

3.1.4. **Odor.** No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public.
[45CSR§4-3.1] ***[State Enforceable Only]***

3.1.5. **Permanent shutdown.** A source which has not operated at least 500 hours in one 12-month period within the previous five (5) year time period may be considered permanently shutdown, unless such source can provide to the Secretary, with reasonable specificity, information to the contrary. All permits may be modified or revoked and/or reapplication or application for new permits may be required for any source determined to be permanently shutdown.
[45CSR§13-10.5.]

3.1.6. **Standby plan for reducing emissions.** When requested by the Secretary, the permittee shall prepare standby plans for reducing the emissions of air pollutants in accordance with the objectives set forth in Tables I, II, and III of 45CSR11.
[45CSR§11-5.2.]

3.2. Monitoring Requirements

[Reserved]

3.3. Testing Requirements

3.3.1. **Stack testing.** As per provisions set forth in this permit or as otherwise required by the Secretary, in accordance with the West Virginia Code, underlying regulations, permits and orders, the permittee shall conduct test(s) to determine compliance with the emission limitations set forth in this permit and/or established or set forth in underlying documents. The Secretary, or his duly authorized representative, may at his option witness or conduct such test(s). Should the Secretary

exercise his option to conduct such test(s), the operator shall provide all necessary sampling connections and sampling ports to be located in such manner as the Secretary may require, power for test equipment and the required safety equipment, such as scaffolding, railings and ladders, to comply with generally accepted good safety practices. Such tests shall be conducted in accordance with the methods and procedures set forth in this permit or as otherwise approved or specified by the Secretary in accordance with the following:

a. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with 40 C.F.R. Parts 60, 61, and 63 in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4. or 45CSR§13-5.4 as applicable.

b. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with applicable requirements which do not involve federal delegation. In specifying or approving such alternative testing to the test methods, the Secretary, to the extent possible, shall utilize the same equivalency criteria as would be used in approving such changes under Section 3.3.1.a. of this permit. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4. or 45CSR§13-5.4 as applicable.

c. All periodic tests to determine mass emission limits from or air pollutant concentrations in discharge stacks and such other tests as specified in this permit shall be conducted in accordance with an approved test protocol. Unless previously approved, such protocols shall be submitted to the Secretary in writing at least thirty (30) days prior to any testing and shall contain the information set forth by the Secretary. In addition, the permittee shall notify the Secretary at least fifteen (15) days prior to any testing so the Secretary may have the opportunity to observe such tests. This notification shall include the actual date and time during which the test will be conducted and, if appropriate, verification that the tests will fully conform to a referenced protocol previously approved by the Secretary.

d. The permittee shall submit a report of the results of the stack test within sixty (60) days of completion of the test. The test report shall provide the information necessary to document the objectives of the test and to determine whether proper procedures were used to accomplish these objectives. The report shall include the following: the certification described in paragraph 3.5.1.; a statement of compliance status, also signed by a responsible official; and, a summary of conditions which form the basis for the compliance status evaluation. The summary of conditions shall include the following:

    1. The permit or rule evaluated, with the citation number and language;
    2. The result of the test for each permit or rule condition; and,
    3. A statement of compliance or noncompliance with each permit or rule condition.

[WV Code § 22-5-4(a)(14-15) and 45CSR13]

3.4. Recordkeeping Requirements

3.4.1. **Retention of records.** The permittee shall maintain records of all information (including monitoring data, support information, reports, and notifications) required by this permit recorded in a form suitable and readily available for expeditious inspection and review. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation. The files shall be maintained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be maintained on site. The remaining three (3) years of data may be maintained off site, but must remain accessible within a reasonable time. Where appropriate, the permittee may maintain records electronically (on a computer, on computer floppy disks, CDs, DVDs, or magnetic tape disks), on microfilm, or on microfiche.

3.4.2. **Odors.** For the purposes of 45CSR4, the permittee shall maintain a record of all odor complaints received, any investigation performed in response to such a complaint, and any responsive action(s) taken.
[45CSR§4. *State Enforceable Only.*]

3.5. Reporting Requirements

3.5.1. **Responsible official.** Any application form, report, or compliance certification required by this permit to be submitted to the DAQ and/or USEPA shall contain a certification by the responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

3.5.2. **Confidential information.** A permittee may request confidential treatment for the submission of reporting required by this permit pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.

3.5.3. **Correspondence.** All notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, or mailed first class with postage prepaid to the address(es) set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

If to the DAQ:
Director
WVDEP
Division of Air Quality
601 57th Street
Charleston, WV 25304-2345

If to the US EPA:
Associate Director
Office of Enforcement and Compliance Assistance
(3AP20)
U.S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

3.5.4. Operating Fee

3.5.4.1. In accordance with 45CSR22 – Air Quality Management Fee Program, the permittee shall not operate nor cause to operate the permitted facility or other associated facilities on the same or contiguous sites comprising the plant without first obtaining and having in current effect a

Certificate to Operate (CTO). Such Certificate to Operate (CTO) shall be renewed annually, shall be maintained on the premises for which the certificate has been issued, and shall be made immediately available for inspection by the Secretary or his/her duly authorized representative.

3.5.5. **Emission inventory.** At such time(s) as the Secretary may designate, the permittee herein shall prepare and submit an emission inventory for the previous year, addressing the emissions from the facility and/or process(es) authorized herein, in accordance with the emission inventory submittal requirements of the Division of Air Quality. After the initial submittal, the Secretary may, based upon the type and quantity of the pollutants emitted, establish a frequency other than on an annual basis.

4.0. Source-Specific Requirements

4.1. Limitations and Standards

4.1.1. **Record of Monitoring.** The permittee shall keep records of monitoring information that include the following:

a. The date, place as defined in this permit, and time of sampling or measurements;
b. The date(s) analyses were performed;
c. The company or entity that performed the analyses;
d. The analytical techniques or methods used;
e. The results of the analyses; and
f. The operating conditions existing at the time of sampling or measurement.

4.1.2. **Minor Source of Hazardous Air Pollutants (HAP).** HAP emissions from the facility shall be less than 10 tons/year of any single HAP and 25 tons/year of any combination of HAPs. Compliance with this Section shall ensure that the facility is a minor HAP source.

4.1.3. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate the control devices listed in Section 1.1 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.
[45CSR§13-5.11.]

4.1.4. **Record of Malfunctions of Air Pollution Control Equipment.** For the control devices listed in Section 1.1, 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.

4.1.5. For each affected facility under §60.5365a(j), you must reduce GHG (in the form of a limitation on emissions of methane) and VOC emissions by complying with the requirements of paragraphs (a) through (j) of §60.5397a. These requirements are independent of the closed vent system and cover requirements in §60.5411a.

5.0. Source-Specific Requirements (RICE, S1-S4, S8-S11, S5A, S20)

5.1. Limitations and Standards

5.1.1. Maximum controlled emissions from each of the 1,380 bhp Caterpillar G3616 LE natural gas fired reciprocating engines, Caterpillar G3516B (S1 – S4 and S8 – S11) shall not exceed the following limits:

Pollutant	Maximum Hourly Emissions (lbs/hr)	Maximum Annual Emissions (TPY)
Nitrogen Oxides	1.52	6.66
Carbon Monoxide	0.61	2.67
Volatile Organic Compounds	1.00	4.40
Formaldehyde	0.18	0.80

5.1.2. Maximum controlled emissions from each of the 215 bhp natural gas fired reciprocating engine, Caterpillar 3406 NA (S5A) shall not exceed the following limits:

Pollutant	Maximum Hourly Emissions (lbs/hr)	Maximum Annual Emissions (TPY)
Nitrogen Oxides	0.46	2.02
Carbon Monoxide	0.46	2.02

5.1.3. Maximum controlled emissions from the 2,370 bhp natural gas fired reciprocating engine, Caterpillar 3608 (S20) shall not exceed the following limits:

Pollutant	Maximum Hourly Emissions (lbs/hr)	Maximum Annual Emissions (TPY)
Nitrogen Oxides	2.61	11.44
Carbon Monoxide	1.04	4.58
Volatile Organic Compounds	1.72	7.55

5.1.4. Requirements for Use of Catalytic Reduction Devices

a. The rich burn natural gas compressor engine (S5A) equipped with non-selective catalytic reduction (NSCR) air pollution control devices shall be fitted with a closed-loop, automatic air/fuel ratio controller to ensure emissions of regulated pollutants do not exceed the potential to emit for any engine/NSCR combination under varying load. The closed-loop, automatic air/fuel ratio controller shall control a fuel metering valve to ensure a fuel-rich mixture and a resultant exhaust oxygen content of less than or equal to 0.5%.

b. The lean burn natural gas compressor engine (S1-S4, S8-S11, S20), the permittee shall monitor the temperature to the inlet of the catalyst and in accordance with manufacturer's specifications, a high temperature alarm shall shut off the engine before thermal deactivation of the catalyst occurs. If the engine shuts off due to high temperature, the permittee shall also check for thermal deactivation of the catalyst before normal operations are resumed.

c. The permittee shall follow the written operation and maintenance plan submitted with Permit Applications R13-3007 – R13-3007E, which details the periodic and annual maintenance requirements.

d. The automatic air/fuel ratio controller or closed-loop automatic feedback controller shall provide a warning or indication to the operator and/or be interlocked with the engine ignition system to cease engine operation in case of a masking, poisoning or overrich air/fuel ratio situation which results in performance degradation or failure of the catalyst element; and

e. No person shall knowingly:

1. Remove or render inoperative any air pollution or auxiliary air pollution control device installed subject to the requirements of this permit;

2. Install any part or component when the principal effect of the part or component is to bypass, defeat or render inoperative any air pollution control device or auxiliary air pollution control device installed subject to the requirements of this permit; or

3. Cause or allow engine exhaust gases to bypass any catalytic reduction device.

5.2. Monitoring Requirements

5.2.1. Catalytic Oxidizer Control Devices

a. The permittee shall regularly inspect, properly maintain and/or replace catalytic reduction devices and auxiliary air pollution control devices to ensure functional and effective operation of the engine's physical and operational design. The permittee shall ensure proper operation, maintenance and performance of catalytic reduction devices and auxiliary air pollution control devices by:

1. Maintaining proper operation of the automatic air/fuel ratio controller or automatic feedback controller.

2. Following a written operating and maintenance plan.

5.3. Testing Requirements

5.3.1. See Facility-Wide Testing Requirements Section 3.3 and Testing Requirements of Sections 6.3.

5.4. Recordkeeping Requirements

5.4.1. To demonstrate compliance with sections 5.1.1 – 5.1.3, the permittee shall maintain records of the hours of operation of each engine. 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.

5.4.2. To demonstrate compliance with section 5.1.4 the permittee shall maintain records of all catalytic reduction device maintenance. 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.

5.5. Reporting Requirements

5.5.1. See Facility-Wide Reporting Requirements Section 3.5 and Reporting Requirements of Sections 6.5 and 7.3.

6.0. Source-Specific Requirements (40CFR60 Subpart JJJJ Requirements)

6.1. Limitations and Standards

6.1.1. Each 1,380 bhp engine (S1 – S4 and S8 – S11) is required to meet the following emission standards: NOx 1.0 g/bhp-hr, CO 2.0 g/bhp-hr, and VOC 0.7 g/bhp-hr.
[40CFR§60.4233(e)]

6.1.2. This facility must operate and maintain each 1,380 bhp engine (S1 – S4 and S8 – S11) over the entire life of the engine.
[40CFR§60.4234]

6.1.3. Engine S20 Caterpillar G3608 is required to meet the following emission standards: NOx 1.0 g/bhp-hr, CO 2.0 g/bhp-hr, and VOC 0.7 g/bhp-hr.
[40CFR§60.4233(e)]

6.1.4. This facility must operate and maintain engine S20 Caterpillar G3608 over the entire life of the engine.
[40CFR§60.4234]

6.2. Compliance Requirements

6.2.1. The permittee shall keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the permittee must conduct an initial performance test and conduct subsequent performance testing every 8,760 hours of operation or 3 years, whichever comes first, thereafter to demonstrate compliance.
[40CFR§60.4243(b)(2)(ii)]

6.2.2. It is expected that the air-to-fuel ratio (AFR) controllers will be used with the operation of three-way catalysts/non-selective catalytic reduction. The AFR controller must be maintained and operated in a manner to ensure proper operation of the engine and control device to minimize emissions at all times.
[40CFR§60.4243(g)]

6.3. Testing Requirements

To demonstrate compliance with section 6.1.1. and 6.1.3., the permittee shall conduct the following testing.

6.3.1. The permittee shall conduct performance tests following the procedures in paragraphs (a) through (g) of this section.

a. Each performance test shall be conducted within 10 percent of 100 percent peak (or the highest achievable) load and according to the requirements in §60.8 and under the specific conditions that are specified by Table 2 to this subpart. [40CFR§60.4244(a)]

b. The permittee may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §60.8(c). If the stationary SI internal combustion engine is non-operational, it is not necessary to start up the engine solely to conduct a performance test; however, the performance test must be conducted immediately upon startup of the engine. [40CFR§60.4244(b)]

c. The permittee shall conduct three separate test runs for each performance test required in this section, as specified in §60.8(f). Each test run shall be conducted within 10 percent of 100 percent peak (or the highest achievable) load and last at least 1 hour. [40CFR§60.4244(c)]

d. To determine compliance with the NO_X mass per unit output emission limitation, convert the concentration of NO_X in the engine exhaust using Equation 1 of this section:

$$ER = \frac{C_d \times 1.912 \times 10^{-3} \times Q \times T}{HP - hr} \qquad \text{(Eq. 1)}$$

Where:
ER = Emission rate of NO_X in g/HP-hr.

C_d= Measured NO_X concentration in parts per million by volume (ppmv).

1.912×10^{-3} = Conversion constant for ppm NO_X to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, horsepower-hour (HP-hr).

[40CFR§60.4244(d)]

e. To determine compliance with the CO mass per unit output emission limitation, convert the concentration of CO in the engine exhaust using Equation 2 of this section:

$$ER = \frac{C_d \times 1.164 \times 10^{-3} \times Q \times T}{HP - hr} \qquad \text{(Eq. 2)}$$

Where:
ER = Emission rate of CO in g/HP-hr.

C_d= Measured CO concentration in ppmv.

$1.164 \times 10-3$ = Conversion constant for ppm CO to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, in HP-hr.

[40CFR§60.4244(e)]

f. For purposes of this subpart, when calculating emissions of VOC, emissions of formaldehyde should not be included. To determine compliance with the VOC mass per unit output emission limitation, convert the concentration of VOC in the engine exhaust using Equation 3 of this section:

$$ER = \frac{C_d \times 1.833 \times 10^{-3} \times Q \times T}{HP - hr} \quad \text{(Eq. 3)}$$

Where:
ER = Emission rate of VOC in g/HP-hr.

C_d= VOC concentration measured as propane in ppmv.

1.833×10^{-3} = Conversion constant for ppm VOC measured as propane, to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, in HP-hr.

[40CFR§60.4244(f)]

g. If the owner/operator chooses to measure VOC emissions using Method 18 of 40 CFR part 60, appendix A, or Method 320 of 40 CFR part 63, appendix A, then it has the option of correcting the measured VOC emissions to account for the potential differences in measured values between these methods and Method 25A. The results from Method 18 and Method 320 can be corrected for response factor differences using Equations 4 and 5 of this section. The corrected VOC concentration can then be placed on a propane basis using Equation 6 of this section.

$$RF_i = \frac{C_{Mi}}{C_{Ai}} \quad \text{(Eq. 4)}$$

Where:
RF_i= Response factor of compound i when measured with EPA Method 25A.

C_{Mi}= Measured concentration of compound i in ppmv as carbon.

C_{Ai}= True concentration of compound i in ppmv as carbon.

$$C_{icorr} = RF_i \times C_{imeas} \quad \text{(Eq. 5)}$$

Where:
C_{icorr}= Concentration of compound i corrected to the value that would have been measured by EPA Method 25A, ppmv as carbon.

C_{imeas}= Concentration of compound i measured by EPA Method 320, ppmv as carbon.

$$C_{Eq} = 0.6098 \times C_{icorr} \quad \text{(Eq. 6)}$$

Where:
C_{Peq}= Concentration of compound i in mg of propane equivalent per DSCM.

[40CFR§60.4244(g)]

6.4. Recordkeeping Requirements

The permittee shall keep the following records pursuant to section 3.4.1.
[40CFR§60.4245(a)]

6.4.1. All notifications to comply with 40CFR60 Subpart JJJJ and all documentation supporting any notification.

6.4.2. Maintenance conducted on each 1,380 bhp engine (S1 – S4 and S8 – S11) and on engine S20.

6.4.3. Documentation that each 1,380 bhp engine (S1 – S4 and S8 – S11) meets the emission standards set forth in 6.1.1. and that engine S20 meets emission standards set forth in 6.1.3.

6.5. Reporting Requirements

6.5.1 The permittee shall submit an initial notification to the Director of the Division of Air Quality as required by §60.7(a)(1) and include the following.
[40CFR§60.4245(c)]

6.5.1.1. Name and address of the owner or operator,

6.5.1.2. The address of the affected source,

6.5.1.3. Make, model, engine family, serial number, model year, maximum engine power, and engine displacement.

6.5.1.4. Emission control equipment

6.5.1.5. Fuel used

6.5.2. The permittee shall submit a copy of each performance test as conducted in accordance with §60.4244 to the Director of the Division of Air Quality within 60 days after the test has been completed.

7.0. Source-Specific Requirements (40CFR60 Subpart OOOO; S1 – S11, S20)

7.1. Limitations and Standards

7.1.1. The compressors associated with engines S1 – S11 and S20 must replace the compressor rod packing before the compressor has operated 26,000 hours from installation or repacking; or 36 months from the date of installation or repacking whichever one comes first.

7.2. Recordkeeping Requirements

7.2.1. From the date the compressors are installed the hours of operation and months of service shall be recorded continuously.

7.2.2. Records of the date and time of each reciprocating compressor rod packing replacement.

7.3. Reporting

7.3.1. **Annual Report**. The initial annual report is due 30 days after the initial compliance period and the subsequent reports are due on the same date as the initial report. The information needed in the annual report is the following: The hours of operation from installation or from the previous repacking and records of deviations.

8.0. Source-Specific Requirements (40CFR63 Subpart ZZZZ Requirements, S1-S4, S8-S11, S20, S5A)

8.1. Limitations and Standards

8.1.1. The permittee must comply with the applicable operating limitations in this section no later than October 19, 2013.
[40 C.F.R. § 63.6595(a)]

8.1.2. *Stationary RICE subject to Regulation under 40 CFR Part 60.* An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part.

The permittee meets the criteria of paragraph (c)(1), which is for a new or reconstructed stationary RICE located at an area source. The permittee must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart JJJJ.

8.1.3. **Engine S5A.** Change oil and filter every 1,440 hours of operation or annually, whichever comes first.

8.1.4. **Engine S5A.** Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.

8.1.5. **Engine S5A.** Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.

9.0. Source-Specific Requirements (TEG Dehydration Unit; S7)

9.1. Limitations and Standards

9.1.1. Maximum Throughput Limitation. The maximum wet natural gas throughput to the glycol dehydration unit/still column shall not exceed 80.0 million standard cubic feet per day (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.

9.1.2. Maximum emissions from the glycol dehydration unit/still column (S7) shall not exceed the following limits:

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
Nitrogen Oxides	0.16	0.67
Carbon Monoxide	0.13	0.56
Volatile Organic Compounds	0.24	1.11
n-Hexane	0.02	0.06
Benzene	0.01	0.03
Ethyl benzene	0.01	0.02
Toluene	0.01	0.03
Xylenes	0.01	0.03

9.1.3. 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.

9.1.4. Any source that determines it is not a major source but has actual emissions of 5 tons per year or more of a single HAP, or 12.5 tons per year or more of a combination of HAP (i.e., 50 percent of the major source thresholds), shall update its major source determination within 1 year of the prior determination or October 15, 2012, whichever is later, and each year thereafter, using gas composition data measured during the preceding 12 months.
[40CFR§63.760(c)]

9.1.5. The permittee is exempt from the requirements of 40CFR§63.760(b)(2) if the criteria below is met, except that the records of the determination of these criteria must be maintained as required in 40CFR§63.774(d)(1).

a. The actual average emissions of benzene from the glycol dehydration unit process vent to the atmosphere are less than 0.90 megagram per year (1 ton/yr), as determined by the procedures specified in §63.772(b)(2) of this subpart.

[40CFR§63.764(e)]

9.1.6. All vapors from the regenerator will be sent to a condenser and then to reboiler S7 to be used as fuel and operated to achieve minimum 95% control efficiency.

9.2. Monitoring Requirements

9.2.1. The permittee shall monitor the throughput of wet natural gas process stream which flows through the contactor of the TEG dehydration unit on a monthly basis.

9.2.2. In order to demonstrate compliance with the area source status, claimed within sections 9.1.2 and 9.1.3, as well as the benzene exemption provided under section 9.1.7, the following parameters shall be measured at least once quarterly, with the exception of the natural gas flowrate annual daily average, natural gas flowrate maximum design capacity, and wet gas composition, in order to define annual average values or, if monitoring is not practical, some parameters may be assigned default values as listed below.

a. Natural Gas Flowrate
   i. Number of hours operated per quarter
   ii. Quarterly throughput (MMscf/quarter)
   iii. Annual daily average (MMscf/day), and
   iv. Maximum design capacity (MMscf/day)
b. Absorber temperature and pressure
c. Lean glycol circulation rate
d. Glycol pump type and maximum design capacity (gpm)
e. Flash tank temperature and pressure, if applicable
f. Stripping Gas flow rate, if applicable
g. Wet gas composition (upstream of the absorber – dehydration column) sampled in accordance with GPA method 2166 and analyzed consistent with GPA extended method 2286 as well as the procedures presented in the GRI-GLYCalc™ Technical Reference User Manual and Handbook V4
h. Wet gas water content (lbs H_2O/MMscf)
i. Dry gas water content (lbs H_2O/MMscf) at a point directly after exiting the dehydration column and before any additional separation points

The following operating parameter(s) may be assigned default values when using GRI-GLYCalc:

a. Dry gas water content can be assumed to be equivalent to pipeline quality at 7 lb H_2O / MMscf
b. Wet gas water content can be assumed to be saturated
c. Lean glycol water content if not directly measured may use the default value of 1.5 % water as established by GRI
d. Lean glycol circulation rate may be estimated using the TEG recirculation ratio of 3 gal TEG / lb H_2O removed.

Note: If you are measuring and using actual wet or dry gas water content, then you should also measure the glycol recirculation rate rather than using the default TEG recirculation ratio. **[45CSR§13-5.11, §63.772(b)(2)(i)]**

9.3. Testing Requirements

9.3.1. The permittee shall determine the composition of the wet natural gas by sampling in accordance with GPA Method 2166 and analyzing according to extended GPA Method 2286 analysis as specified in the GRI-GLYCalc™ V4 Technical Reference User Manual and Handbook. As specified in the handbook, the permittee shall sample the wet gas stream at a location prior to the glycol dehydration contactor column, but after any type of separation device, in accordance with GPA method 2166. The permittee may utilize other equivalent methods provided they are approved in advance by DAQ as part of a testing protocol. If alternative methods are proposed, a test protocol shall be submitted for approval no later than 60 days before the scheduled test date. The initial compliance test must be conducted within 180 days of permit issuance or within 180 days of startup of the glycol dehydration unit, whichever is later.

Note: The DAQ defines a representative wet gas sample to be one that is characteristic of the average gas composition dehydrated throughout a calendar year. If an isolated sample is not indicative of the annual average composition, the permittee may opt to produce a weighted average based on throughput between multiple sampling events, which can be used to define a more representative average annual gas composition profile.
[45CSR§13-5.11]

9.3.2. The following testing and compliance provisions of Part 63 Subpart HH National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities are applicable to the facility:

§ 63.772 Test methods, compliance procedures, and compliance demonstrations.

(b) Determination of glycol dehydration unit flowrate, benzene emissions, or BTEX emissions. The procedures of this paragraph shall be used by an owner or operator to determine glycol dehydration unit natural gas flowrate, benzene emissions, or BTEX emissions.

(2) The determination of actual average benzene emissions or BTEX emissions from a glycol dehydration unit shall be made using the procedures of paragraph (b)(2)(i) of this requirement. Emissions shall be determined either uncontrolled, or with federally enforceable controls in place.

(i) The owner or operator shall determine actual average benzene emissions using the model GRI-GLYCalc™, Version 3.0 or higher, and the procedures presented in the associated GRI-GLYCalc™ Technical Reference Manual. Inputs to the model shall be representative of actual operating conditions of the glycol dehydration unit and may be determined using the procedures documented in Gas Research Institute (GRI) report entitled "Atmospheric Rich/Lean Method for Determining Glycol Dehydrator Emissions " (GRI-95/0368.1).
[§63.772(b)(2)(i)]

9.4. Recordkeeping Requirements

9.4.1. The permittee shall maintain a record of the wet natural gas throughput through the TEG dehydration contactor to demonstrate compliance with section 9.1.1 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.

9.4.2. For the purpose of documenting compliance with the emission limitations, HAP major source thresholds, as well as the benzene exemption, the permittee shall maintain records of all monitoring data, wet gas sampling, and annual GRI-GLYCalc™ emission estimates. 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.
[45CSR§13-5.11]

10.0. Source-Specific Requirements (Reboiler, Line Heaters)

10.1. Limitations and Standards

10.1.1. Maximum Design Heat Input. The maximum design heat input shall not exceed the following:

Emission Point ID#	Emission Unit Description	MDHI (MMBTU/hr)
E7	Dehy Reboiler	1.5
E17	Line Heater	0.75
E17-A	Line Heater	4.0
E17-B	Line Heater	2.0

10.1.2. 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.]

10.2. Monitoring Requirements

10.2.1. At such reasonable times as the Secretary may designate, the permittee shall conduct Method 9 emission observations for the purpose of demonstrating compliance with Section 10.1.2. Method 9 shall be conducted in accordance with 40 CFR 60 Appendix A.

10.3. Testing Requirements

10.3.1. Compliance with the visible emission requirements of section 10.1.2 shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9 or by using measurements from continuous opacity monitoring systems approved by the Director. The Director may require the installation, calibration, maintenance and operation of continuous opacity monitoring systems and may establish policies for the evaluation of continuous opacity monitoring results and the determination of compliance with the visible emission requirements of section 10.1.2. Continuous opacity monitors shall not be required on fuel burning units which employ wet scrubbing systems for emission control.
[45CSR§2-3.2.]

10.4. Recordkeeping Requirements

10.4.1. The permittee shall maintain records of all monitoring data required by Section 10.2.1 documenting the date and time of each visible emission check, the emission point or equipment/source identification number, the name or means of identification of the observer, the results of the check(s), whether the visible emissions are normal for the process, and, if applicable, all corrective measures taken or planned. The permittee shall also record the general weather conditions (i.e. sunny, approximately 80°F, 6 - 10 mph NE wind) during the visual emission check(s). Should a visible emission observation be required to be performed per the requirements specified in Method 9, the data records of each observation shall be maintained per the requirements of Method 9.

10.5. Reporting Requirements

10.5.1. Any deviation(s) from the allowable visible emission requirement for any emission source discovered during observations using 40CFR Part 60, Appendix A, Method 9 or 22 shall be reported in writing to the Director of the Division of Air Quality as soon as practicable, but in any case within ten (10) calendar days of the occurrence and shall include at least the following

information: the results of the visible determination of opacity of emissions, the cause or suspected cause of the violation(s), and any corrective measures taken or planned.

11.0. Source-Specific Requirements (Condensate Tanks (T33-T40) and Condensate Truck Loading (S14) controlled by Vapor Combustion Units (VCU-1, VCU-2))

11.1. Limitations and Standards

11.1.1. *Operation and Maintenance of Air Pollution Control Equipment.* The permittee shall, to the extent practicable, install, maintain, and operate the vapor combustion units (VCU-1, VCU-2) 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.
[45CSR§13-5.11.]

11.1.2. **Truck Loading Limitations**. A vapor balance line from the truck back to the condensate tank is required any time condensate is being loaded by a truck. Condensate Loading shall be limited to 12 hours of any day.

11.1.3. The permittee shall use the vapor combustor at all times truck loading occurs, have a constant pilot flame during all times of truck loading, and follow manufacturer's recommendations in operation of the vapor combustor.

11.1.4. The vapor combustor shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

11.1.3. The permittee shall route all VOC and HAP emissions from the Condensate Truck Loading to a vapor combustion unit (VCU-1) and the Condensate Storage Tanks (T33-T40) to a vapor combustion unit (VCU-2) This vapor combustion units (VCU-1, VCU-2) shall be designed to achieve a minimum guaranteed control efficiency of 98% for volatile organic compound (VOC) and hazardous air pollutants (HAP) emissions.

11.1.5. The maximum quantity of condensate that shall be loaded shall not exceed 4,600,000 gallons per year. Compliance with this limit shall be demonstrated 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.

11.1.6. To demonstrate compliance with Section 11.1.7., the quantity of waste gas that shall be consumed in the vapor combustor (VCU-1) shall not exceed 456,300 cubic feet per year. Compliance with the gas throughput limit shall be demonstrated using a rolling 12-month total.

11.1.7. **Vapor Combustor (VCU-1) Emission Limitations.** Maximum emissions from the vapor combustor (VCU-1) or emission point E16 shall not exceed the following limits:

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
Volatile Organic Compounds	3.00	0.82
Nitrogen Oxides	0.21	0.06
Carbon Monoxide	1.13	0.31

11.1.8. **Annual Storage Tank Throughput Limitation.** The permittee shall not exceed 4,600,000 gallons per year of condensate. Compliance with these annual throughput limitations shall be determined using a twelve month rolling total. A twelve month rolling total shall mean the sum of the tank throughputs at any given time during the previous twelve consecutive months.

11.1.9. To demonstrate compliance with Section 11.1.10., the quantity of waste gas that shall be consumed in the vapor combustor (VCU-2) shall not exceed 27.17 mmscf/yr. Compliance with the gas throughput limit shall be demonstrated using a rolling 12-month total.

11.1.10. **Vapor Combustor (VCU-2) Emission Limitations.** Maximum emissions from the vapor combustors (VCU-2) or emission point E16 shall not exceed the following limits:

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
Volatile Organic Compounds	27.57	40.23
Nitrogen Oxides	1.96	2.86
Carbon Monoxide	10.66	15.57

11.2. Monitoring Requirements

11.2.1. The pilot flames shall be continuously monitored by a thermocouple or an infrared monitor. Each monitoring device shall be accurate to, and shall be calibrated at a frequency in accordance with manufacturer's specifications.

11.2.2. The permittee shall monitor the throughput to the vapor combustor units (VCU-1, VCU-2) on a monthly basis.

11.3. Testing Requirements

11.3.1. The permittee shall conduct a Method 22 opacity test on the vapor combustor for at least two hours. This test shall demonstrate no visible emissions are observed for more than a total of 5 minutes during any 2 consecutive hour period using 40CFR60 Appendix A Method 22. The permittee shall conduct this test within one (1) year of permit issuance or initial startup whichever is later. The visible emission checks shall determine the presence or absence of visible emissions. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40 CFR part 60, appendix A, Method 22 or from the lecture portion of 40 CFR part 60, appendix A, Method 9 certification course.

11.4. Recordkeeping Requirements

11.4.1. For the purpose of demonstrating compliance with section 11.2.1., the permittee shall maintain records of the times and duration of all periods which the pilot flame was absent.

11.4.2. For the purpose of demonstrating compliance with section 11.3.1., the permittee shall maintain records of the visible emission opacity tests.

11.4.3. For the purpose of demonstrating compliance with section 11.1.5 and 11.18., the permittee shall maintain records of the throughputs of condensate loaded into tank trucks and condensate tank throughput. The permittee shall calculate the monthly throughput to the vapor combustor by ratio of the recorded condensate and tank truck loading volumes against the process modeling and throughput information within the plans and specifications filed in Permit Application R13-3007E.

11.4.4. All records required under Section 11.4 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.

11.5. Reporting Requirements

11.5.1 Any deviation(s) of the allowable visible emission requirement for any emission source discovered during observations using 40CFR Part 60, Appendix A, Method 9 must be reported in writing to the Director of the Division of Air Quality as soon as practicable, but within ten (10) calendar days, of the occurrence and shall include, at a minimum, the following information: the results of the visible determination of opacity of emissions, the cause or suspected cause of the violation(s), and any corrective measures taken or planned.

12.0. Source-Specific Requirements (40CFR60 Subpart Kb Requirements, Condensate Storage Tanks (T01-T03))

12.1. Limitations and Standards

12.1.1. The affected facility to which this subpart applies is each storage vessel with a capacity greater than or equal to 75 cubic meters (m^3) that is used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification is commenced after July 23, 1984.
[40CFR§60.110b, Condensate Storage Tanks (T33-T40)]

12.1.2. The owner or operator of each storage vessel with a design capacity greater than or equal to 75 m^3 which contains a VOL that, as stored, has a maximum true vapor pressure greater than or equal to 76.6 kPa shall equip each storage vessel with the following:

(1) A closed vent system and control device as specified in § 60.112b(a)(3).
[40CFR§60.112b(b)(1), Condensate Storage Tanks (T33-T40)]

12.1.3. The permittee shall install a closed vent system and control device meeting the following specifications:

(1) The closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in part 60, subpart VV, § 60.485(b).

(2) The control device shall be designed and operated to reduce inlet VOC emissions by 95 percent or greater. If a flare is used as the control device, it shall meet the specifications described in the general control device requirements (§ 60.18) of the General Provisions.
[40CFR§60.112b(a)(3), Condensate Storage Tanks (T33-T40)]

12.2. Testing and Procedures

12.2.1. The owner or operator of each storage vessel as specified in § 60.112b(a) shall meet the requirements of paragraph (a), (b), or (c) of this section. The applicable paragraph for a particular storage vessel depends on the control equipment installed to meet the requirements of § 60.112b.

(a) *Reserved;*

(b) *Reserved;*

(c) The owner or operator of each source that is equipped with a closed vent system and control device as required in § 60.112b (a)(3) or (b)(2) (other than a flare) is exempt from § 60.8 of the General Provisions and shall meet the following requirements.

(1) Submit for approval by the Administrator as an attachment to the notification required by § 60.7(a)(1) or, if the facility is exempt from § 60.7(a)(1), as an attachment to the notification required by § 60.7(a)(2), an operating plan containing the information listed below.

(i) Documentation demonstrating that the control device will achieve the required control efficiency during maximum loading conditions. This documentation is to include a description of the gas stream which enters the control device, including flow and VOC content under varying liquid level conditions (dynamic and static) and manufacturer's design specifications for the control device. If the control device or the closed vent capture system receives vapors, gases, or liquids other than fuels from sources that are not designated sources under this subpart, the efficiency demonstration is to include consideration of all vapors, gases, and liquids received by the closed vent capture system and control device. If an enclosed combustion device with a minimum residence time of 0.75 seconds and a minimum temperature of 816 °C is used to meet the 95 percent requirement, documentation that those conditions will exist is sufficient to meet the requirements of this paragraph.

(ii) A description of the parameter or parameters to be monitored to ensure that the control device will be operated in conformance with its design and an explanation of the criteria used for selection of that parameter (or parameters).

12.2.2. Operate the closed vent system and control device and monitor the parameters of the closed vent system and control device in accordance with the operating plan submitted to the Administrator in accordance with section 13.2.1 (c)(1), unless the plan was modified by the Administrator during the review process. In this case, the modified plan applies.
[40CFR§60.113b, Condensate Storage Tanks (T33-T40)]

12.3. Reporting and Recordkeeping Requirements

12.3.1. The owner or operator of each storage vessel as specified in § 60.112b(a) shall keep records and furnish reports as required by paragraphs (a), (b), or (c) of this section depending upon the control equipment installed to meet the requirements of § 60.112b. The owner or operator shall keep copies of all reports and records required by this section, except for the record required by (c)(1), for at least 2 years. The record required by (c)(1) will be kept for the life of the control equipment.

(a) *Reserved;*

(b) *Reserved;*

(c) After installing control equipment in accordance with § 60.112b (a)(3) or (b)(1) (closed vent system and control device other than a flare), the owner or operator shall keep the following records.

(1) A copy of the operating plan.

(2) A record of the measured values of the parameters monitored in accordance with §60.113b(c)(2).

(d) *Reserved.*
[40CFR§60.115b, Condensate Storage Tanks (T33-T40)]

12.4. Monitoring of Operations

12.4.1. The owner or operator shall keep copies of all records required by this section, except for the record required by section 13.4.2, for at least 2 years. The record required by section 13.4.2 will be kept for the life of the source.

12.4.2. The owner or operator of each storage vessel as specified in § 60.110b(a) shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel.

12.4.3. Except as provided in sections 13.4.5 and 13.4.6, the owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m^3 storing a liquid with a maximum true vapor pressure greater than or equal to 3.5 kPa or with a design capacity greater than or equal to 75 m^3 but less than 151 m^3 storing a liquid with a maximum true vapor pressure greater than or equal to 15 0 kPa shall maintain a record of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period.

12.4.4 Available data on the storage temperature may be used to determine the maximum true vapor pressure as determined below.

(1) For vessels operated above or below ambient temperatures, the maximum true vapor pressure is calculated based upon the highest expected calendar-month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service.

(2) For crude oil or refined petroleum products the vapor pressure may be obtained by the following:

(i) Available data on the Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517 (incorporated by reference—see § 60.17), unless the Administrator specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).

(ii) The true vapor pressure of each type of crude oil with a Reid vapor pressure less than 13.8 kPa or with physical properties that preclude determination by the recommended

method is to be determined from available data and recorded if the estimated maximum true vapor pressure is greater than 3.5 kPa.

(3) For other liquids, the vapor pressure:

(i) May be obtained from standard reference texts, or

(ii) Determined by ASTM D2879-83, 96, or 97 (incorporated by reference—see § 60.17); or

(iii) Measured by an appropriate method approved by the Administrator; or

(iv) Calculated by an appropriate method approved by the Administrator.

12.4.5. The owner or operator of each vessel storing a waste mixture of indeterminate or variable composition shall be subject to the following requirements.

(1) Prior to the initial filling of the vessel, the highest maximum true vapor pressure for the range of anticipated liquid compositions to be stored will be determined using the methods described in section 13.4.4.

(2) For vessels in which the vapor pressure of the anticipated liquid composition is above the cutoff for monitoring but below the cutoff for controls as defined in § 60.112b(a), an initial physical test of the vapor pressure is required; and a physical test at least once every 6 months thereafter is required as determined by the following methods:

(i) ASTM D2879-83, 96, or 97 (incorporated by reference—see § 60.17); or

(ii) ASTM D323-82 or 94 (incorporated by reference—see § 60.17); or

(iii) As measured by an appropriate method as approved by the Administrator.

12.4.6. The owner or operator of each vessel equipped with a closed vent system and control device meeting the specification of § 60.112b or with emissions reductions equipment as specified in 40 CFR 65.42(b)(4), (b)(5), (b)(6), or (c) is exempt from the requirements of section 13.4.3. **[40CFR§60.116b, Condensate Storage Tanks (T33-T40)]**

CERTIFICATION OF DATA ACCURACY

I, the undersigned, hereby certify that, based on information and belief formed after reasonable inquiry, all information contained in the attached _____, representing the period beginning _____ and ending _____, and any supporting documents appended hereto, is true, accurate, and complete.

Signature[1] (please use blue ink) _____ Responsible Official or Authorized Representative _____ Date

Name & Title (please print or type) _____ Name _____ Title

Telephone No. _____ Fax No. _____

---

1 This form shall be signed by a "Responsible Official." "Responsible Official" means one of the following:

a. For a corporation: The president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:

(i) the facilities employ more than 250 persons or have a gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars), or

(ii) the delegation of authority to such representative is approved in advance by the Director;

b. For a partnership or sole proprietorship: a general partner or the proprietor, respectively;

c. For a municipality, State, Federal, or other public entity: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of U.S. EPA); or

d. The designated representative delegated with such authority and approved in advance by the Director.

Permit / Application Information Sheet
Division of Environmental Protection
West Virginia Office of Air Quality

Company:	Eureka Hunter Pipeline, LLC			**Facility:**	Carbide Site
Region:	2	**Plant ID:**	103-00049	**Application #:**	13-3007E
Engineer:	Williams, Jerry			**Category:**	Gas Comp
Physical Address:	15448 Shortline Hwy Hastings WV 26149			SIC: [1311] OIL AND GAS EXTRACTION - CRUDE PETROLEUM & NATURAL GAS NAICS: [211111] Crude Petroleum and Natural Gas Extraction	
County:	Wetzel				
Other Parties:	Consultant - Dhonau, Roger 412-221-1100 OPER_MGR - Akers, Chris 740-868-1325				

Information Needed for Database and AIRS
1. Need valid physical West Virginia address with zip

Regulated Pollutants

Summary from this Permit 13-3007E

Air Programs		Applicable Regulations
Fee Program	**Fee**	**Application Type**
	$0.00	MODIFICATION

Notes from Database

Activity Dates

APPLICATION RECIEVED	06/23/2016
ASSIGNED DATE	06/24/2016

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Please note, this information sheet is not a substitute for file research and is limited to data entered into the AIRTRAX database.

Company ID: 103-00049
Company: Eureka Hunter Pipeline, LLC
Printed: 06/24/2016
Engineer: Williams, Jerry

Williams, Jerry

From: Williams, Jerry
Sent: Thursday, July 21, 2016 7:46 AM
To: 'cakers@ehp.energy'; Roger Dhonau
Cc: McKeone, Beverly D
Subject: WV DAQ NSR Permit Application Complete for Eureka Midstream, LLC - Carbide Site

RE: Application Status: Complete
Eureka Midstream, LLC - Carbide Site
Permit Application R13-3007E
Plant ID No. 103-00049

Mr. Akers,

Your application for a modification permit for a natural gas compressor station was received by this Division on June 23, 2016 and assigned to the writer for review. Upon review of said application, it has been determined that the application is complete and, therefore, the statutory review period commenced on July 21, 2016.

In the case of this application, the agency believes it will take approximately 90 days to make a final permit determination.

This determination of completeness shall not relieve the permit applicant of the requirement to subsequently submit, in a timely manner, any additional or corrected information deemed necessary for a final permit determination.

Should you have any questions, please contact Jerry Williams at (304) 926-0499 ext. 1223 or reply to this email.

Jerry Williams, P.E.
Engineer
WVDEP – Division of Air Quality
601 57th Street, SE
Charleston, WV 25304
(304) 926-0499 ext. 1223
jerry.williams@wv.gov

dep

Please consider the environment before printing this email.

NON-CONFIDENTIAL

west virginia department of environmental protection

Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Phone: 304 926 0475 • FAX: 304 926 0479

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

July 18, 2016

Chris Akers, EVP/Chief Operating Officer
Eureka Midstream, LLC
27710 State Route 7
Marietta, OH 45750

RE: Name Change
Plant ID Nos. 103-00049 and 095-00031
Carbide Site and Twin Hickory Station

Dear Mr. Akers:

We are in receipt of your letter, dated July 5, 2016, in which you requested that the above-referenced facility's name be changed from Eureka Hunter Pipeline, LLC, to Eureka Midstream, LLC.

All information shall henceforth be filed under the name of Eureka Midstream, LLC.

Should you have any questions or comments, please contact our office at the address or telephone number listed above.

Sincerely,

William F. Durham
Director

WFD/jlr

c: Roger Dhonau, SE Technologies, LLC
File Room

NON-CONFIDENTIAL

Williams, Jerry

From: Roger Dhonau <RDhonau@se-env.com>
Sent: Monday, July 18, 2016 11:54 AM
To: Williams, Jerry
Subject: RE: R13-3307E Eureka Midstream Carbide Site
Attachments: Condensate Tank Emissions.pdf; Truck Loading Combustor Emissions 7-18-16.pdf; Project Overview.pdf; Attachment G- Process Desc.pdf; Attachment J - Page 8.pdf; Tank Emissions to Combustor 7-18-16.pdf; Emissions Summary Sheet 7-18-16.pdf

Jerry,
Here are corrected sheets, reflecting the change from 99% to 98%. The original of this permit (several years ago) went through with the VRU alone being a 100% capture and control. Thus, while in reality the emissions will be lower (there was no control when the VRU was down before), the calculations show a large increase.

Please let me know if I missed any pages or if there is anything else needed.

Roger

Roger A. Dhonau, PE, QEP
SE Technologies, LLC

TECHNOLOGIES
98 Vanadium Rd., Bldg. D
Bridgeville, PA 15017
412/221-1100, ext. 1628

From: Williams, Jerry [mailto:Jerry.Williams@wv.gov]
Sent: Monday, July 18, 2016 11:27 AM
To: Roger Dhonau
Subject: RE: R13-3307E Eureka Midstream Carbide Site

OK Thanks. The 98% destruction efficiency for vapor combustors would also apply to R13 permits. Please let me know if this is not the case in other applications. Because it should be applied in both cases.

Thanks
Jerry

From: Roger Dhonau [mailto:RDhonau@se-env.com]
Sent: Monday, July 18, 2016 10:39 AM
To: Williams, Jerry <Jerry.Williams@wv.gov>
Subject: RE: R13-3307E Eureka Midstream Carbide Site

ID # 103-00019
Reg R13-3307E
Company EUREKA
Facility CARBIDE Initials

NON-CONFIDENTIAL

My apologies Jerry. I thought the 98% was a limit only applied to general permits. I will correct the pages and get back to you.

Roger

Roger A. Dhonau, PE, QEP
SE Technologies, LLC
98 Vanadium Rd., Bldg. D
Bridgeville, PA 15017
412/221-1100, ext. 1628

From: Williams, Jerry [mailto:Jerry.Williams@wv.gov]
Sent: Monday, July 18, 2016 9:18 AM
To: Roger Dhonau
Subject: R13-3307E Eureka Midstream Carbide Site

Roger,

Your application indicates a destruction efficiency for the proposed vapor combustors of 99%. The DAQ only allows a destruction efficiency of 98%. Please address and resubmit any pages that may be affected as a result.

Please let me know if you have any questions.

Thanks,
Jerry

Jerry Williams, P.E.
Engineer
WVDEP – Division of Air Quality
601 57th Street, SE
Charleston, WV 25304
(304) 926-0499 ext. 1223
jerry.williams@wv.gov

Eureka Midstream, LLC
Carbide Site
Project Overview

Eureka Midstream, LLC currently operates its Carbide Site under Permit R13-3007D. It is seeking t modify this permit to reflect the following three physical changes to this facility:

Truck Loading Combustor Upgrade

Eureka is seeking to modify its permit to reflect the replacement of the existing enclosed combustor with a larger unit. It was determined that while the current unit was adequately sized for daily and annual demands, it was undersized for peak demand during the initial phases of the condensate truck loading process. Upon discovery, the old combustor was immediately replaced with a larger unit capable of better handling the peak demand to ensure safe operation during truck loading of condensate. The annual maximum loading to this unit (and subsequent annual emissions) will not change as there is no request to change the annual allowable limit on condensate truck loading or capture and control efficiencies.

Condensate Tanks Replacement

In 2012, the original general permit registration for the Carbide Site was replaced with an R13 permit when the current series of ten 630 BBL condensate tanks and associated VRU control were installed. In 2015 an EPA Region III evaluation of the tanks determined that the safety relief vents on these tanks were undersized and placed Eureka under a Consent Order (provided at the end of Attachment G) to upgrade the safety relief vents to properly sized units. Eureka determined that the safest approach was to replace the tanks entirely rather than attempt to modify the existing tanks.

At this time, Eureka is seeking modification of the permit to reflect the replacement the ten existing 630 BBL tanks with eight 500 BBL tanks. Again, Eureka is not seeking to increase condensate throughput as a result of the tank replacement. Hence, in of itself, the tank replacement is not anticipated to impact annual potential emissions. The tank replacement is proceeding in a timeframe to comply with the terms of the Consent Agreement. It is expected to begin on or about July 18, 2016.

Tank VRU Backup Combustors

Currently, emissions from the tanks are controlled by a Vapor Recovery Unit (VRU). Eureka is seeking approval to install enclosed combustors to destroy tank vapors in lieu of the VRU as a more cost effective control methodology. At the time of the original R13 Permit, the Department accepted the VRU as a 100% control for the tanks. Hence, the tanks were not listed as emission sources in the permit. It is understood that this is no longer consistent with permitting policies adopted subsequent to the issuance of this permit. Hence, while in reality controls on the tank emissions are reduced, the calculations indicate an increase in emissions due to the lower claim of control efficiency. The combined capture and control efficiency of the enclosed combustors is 98%.

It should be noted that the Promax Model output (provided in Attachment N – Supporting Calculations) presents the annual average hourly condensate tank emissions at the maximum allowable condensate truck loading (600 BBL/Day). However, there is considerable variation in this flow from hour to hour. In reality, the actual maximum hourly condensate vapor generation rate could reach three times the amount presented in the Promax Model. Thus, the total capacity for the enclosed combustors was designed to handle this 3X vapor flow, plus a 20% safety factor.

No other physical or operational changes are proposed for any other equipment or process.

Additionally, this Modification also seeks to change the name of the facility owner on the permit to reflect the change in the corporate name as well as the parent company.

Lastly, this Modification seeks to correct the gas consumption and subsequent emissions associated with the pilot flame for the truck loading combustor. It was incorrectly presented at 2.4 MMBTU/Hr rather than 8 MBTU/Hr. This results in a decrease of annual combustion by-product emissions for this source.

ATTACHMENT G
Eureka Midstream, LLC
Carbide Site
Process Description

This natural gas liquids management and gas compression facility currently operates under permit R13-3007D. Raw gas and produced liquids are received at this facility from local production wells via three pipelines entering the station: 8-inch, 12-inch and 20-inch lines. The following text presents an overview of the operations at this facility and a description of the proposed changes Eureka is seeking to permit.

High pressure gas is received via the 20-inch line, passed through a slug catcher and then returned to this high pressure gas line for transportation to a regional natural gas processing facility owned and operated by others. This gas is not passed through any other processes at this facility.

Low pressure inlet gas is received via a 12-inch pipeline and passed through an inlet separator, compressed, dehydrated, blended with the high pressure gas and injected into the 20-inch pipeline for transportation to the regional natural gas processing facility. Liquids separated from this gas stream are sent through a line heater and then to a three-way separator where the pressure is reduced, allowing dissolved gases to flash off. This flash gas is compressed and re-blended with the low pressure inlet gas. The remaining liquids are separated into organic (condensate) and water phases.

Produced Liquids are received at the facility via an 8-inch liquids line. These liquids are mostly produced water (brine), but also contain condensate. This liquid is passed through a line heater and a three-way inlet separator where the pressure is reduced, allowing entrained gas to flash off. This flash gas is also routed to the flash gas compressor referenced above and blended with the low pressure inlet gas prior to compression. The three-way separator also separates the water (brine) and organic phases (condensate), routing them to separate accumulation tanks. Brine is accumulated in a single 2 million gallon tank. This brine is re-used by others for development of wells, thereby minimizing the demand for fresh water for that purpose.

Condensate is currently accumulated in a series of ten 630 BBL tanks prior to truck transportation to others for further processing. Emissions from these atmospheric pressure tanks are collected and compressed by a vapor recovery unit (VRU) where the vapors are sufficiently compressed to be introduced into the low pressure inlet gas line and processed with the low pressure inlet gas.

As noted above, condensate is taken from this facility by tanker truck to a nearby processing plant (owned and operated by others) for processing into individual chemical products. Volatile Organic Compound (VOC) emissions generated during the truck loading process is managed by an enclosed combustor.

Eureka is seeking the following three changes to the operations described above:

Truck Loading Combustor Upgrade

Eureka is seeking to modify its permit to reflect the replacement of the existing enclosed combustor with a larger unit. It was determined that while the current unit was adequately sized for daily and annual demands, it was undersized for peak demand during the initial phases of the condensate truck loading process. Upon discovery, it was immediately replaced with a larger unit capable of better handling the peak demand to ensure safe operation during truck loading of condensate. The annual

maximum loading to this unit (and subsequent annual emissions) will not change as there is no request to change the annual allowable limit on condensate truck loading or capture and control efficiencies.

Condensate Tanks Replacement

In 2012, the original general permit registration was replaced with an R13 permit when the current series of ten 630 BBL condensate tanks and associated VRU control were installed. In 2015 an EPA Region III evaluation of the tanks determined that the safety relief vents were undersized and placed Eureka under a Consent Agreement (provided at the end of this Attachment) to upgrade the safety relief vents to properly sized units. Eureka determined that the safest approach was to replace the tanks entirely rather than attempt to modify the existing tanks.

At this time, Eureka is seeking modification of the permit to reflect the replacement the ten existing 630 BBL tanks with eight 500 BBL tanks. Again, Eureka is not seeking to increase condensate throughput as a result of the tank replacement. Hence, in of itself, the tank replacement is not anticipated to impact annual potential emissions. The tank replacement is proceeding in a timeframe to comply with the terms of the Consent Agreement.

Tank VRU Replacement Combustors

Eureka is seeking approval to install enclosed combustors as replacement to the VRU as the volume of gas captured and returned to the process is no longer cost effective. At the time of the original R13 Permit, the Department accepted the VRU as a 100% control for the tanks. Hence, the tanks were not listed as emission sources in the permit. It is understood that this is no longer consistent with permitting policies adopted subsequent to the issuance of this permit. Hence, while in reality, controls on the tank emissions are improved (emissions reduced), the calculations indicate an increase in emissions due to the lower claim of control efficiency (98%).

No other physical or operational changes are proposed for any other equipment or process.

This Modification also seeks to change the name of the facility owner on the permit to reflect the change in the corporate name as well as the parent company.

Lastly, this Modification seeks to correct the gas consumption and subsequent emissions associated with the pilot flame for the truck loading combustor. It was incorrectly presented at 2.4 MMBTU/Hr rather than 8 MBTU/Hr. This correction results in a decrease of annual combustion by-product emissions for that emission source.

Eureka Midstream, LLC

Carbide Station
Wetzel County

Potential Emission Rates

Source VCU-1

Enclosed Vapor Combustor
(Truck Loading)

Destruction Efficiency	98.0 %		
Gas Heat Content (HHV)	3657.0 Btu/scf		
Max Flow to T-E	0.00250 MMSCFD	0.4563	MMCF/Yr
Max BTUs to Flare	3.0 MMBTU/Hr	1,669	MMBTU/Yr

NOx	0.21	lbs/hr	0.06	tpy
CO	1.13	lbs/hr	0.31	tpy
CO2	355.94	lbs/hr	97.52	tpy
CO2e	356.30	lb/hr	97.62	tpy
VOC	3.00	lb/hr	0.82	tpy
CH4	0.01	lbs/hr	0.0018	tpy
N2O	0.0007	lbs/hr	0.0002	tpy
PM	0.0008	lb/hr	0.0017	tpy

Notes: Truck loading vapor to VCU is assumed to be 100% VOC.
Truck max Loading Emission are 2498 scfd (excluding displaced air)
Thus, max to flare is 0.0025 MMSCFD
Annual truck loading to flares is 0.4563 MMSCF/Yr.

Factors Used

AP-42 Table 13.5-1	**NOx**	**0.068 Lbs/MMBTU**
AP-42 Table 13.5-1	**CO**	**0.37 Lbs/MMBTU**
40 CFR 98 Table C-1	**CO2**	**116.89 Lbs/MMBTU**
40 CFR 98 Table C-2	**CH4**	**0.0022 Lbs/MMBTU**
40 CFR 98 Table C-2	**N2O**	**0.00022 Lbs/MMBTU**
AP-42 Table 1.4-2	**PM**	**7.6 lb/MMSCF**

Eureka Midstream, LLC

Carbide Station
Wetzel County

Potential Emission Rates

Source VCU-2

Enclosed Vapor Combustors
(Condensate Tanks)

Destruction Efficiency	98.0 %		
Gas Heat Content (HHV)	3097.0 Btu/scf		
Max Flow to T-E	0.07443 MMSCFD	27.1700	MMCF/Yr
Max BTUs to Flare	28.8 MMBTU/Hr	84,145	MMBTU/Yr

NOx	1.96	lbs/hr	2.86	tpy
CO	10.66	lbs/hr	15.57	tpy
CO2	3,368.04	lbs/hr	4,917.88	tpy
CO2e	3,373.42	lb/hr	4,941.16	tpy
VOC	27.57	lb/hr	40.23	tpy
n-Hexane	4.17	lb/hr	6.08	
CH4	0.14	lbs/hr	0.2100	tpy
N2O	0.0063	lbs/hr	0.0093	tpy
PM	0.0236	lb/hr	0.1032	tpy

Notes: Daily Max is 0.07443 MMSCFD from Promax (average flow) x 3 for Max hourly flow
Annual combustion by-products (NOx, PM, CO2 and CO) is the average from ProMax (3101scf/hr) continuously for a year.
VOC and n-Hexane Emissions included in Condensate Uncaptured/Uncontrolled in Summary Sheet

Factors Used

AP-42 Table 13.5-1	**NOx**	**0.068 Lbs/MMBTU**
AP-42 Table 13.5-1	**CO**	**0.37 Lbs/MMBTU**
40 CFR 98 Table C-1	**CO2**	**116.89 Lbs/MMBTU**
40 CFR 98 Table C-2	**N2O**	**0.00022 Lbs/MMBTU**
AP-42 Table 1.4-2	**PM**	**7.6 lb/MMSCF**

Eureka Midstream, LLC
EMISSIONS SUMMARY

Carbide Station
Wetzel County

Source	Description	NOx lb/hr	CO lb/hr	CO_{2e} lb/hr	VOC lb/hr	SO2 lb/hr	H2S lb/hr	PM lb/hr	Acrolein lb/hr	Acetaldehyde tpy	Benzene lb/hr	n-Hexane lb/Hr	Methanol lb/hr	Toluene lb/Hr	Xylenes lb/hr	formaldehyde lb/hr	Total HAPs lb/hr
S1	Compressor Engine #1	1.52	0.61	1519.34	1.00	0.006	0.00	0.103		0.0519	0.0027	0.0069		0.0025	0.0011	0.1825	0.2969
S2	Compressor Engine #2	1.52	0.61	1519.34	1.00	0.006	0.00	0.103		0.0519	0.0027	0.0069		0.0025	0.0011	0.1825	0.2968
S3	Compressor Engine #3	1.52	0.61	1519.34	1.00	0.006	0.00	0.103		0.0519	0.0027	0.0069		0.0025	0.0011	0.1825	0.2968
S4	Compressor Engine #4	1.52	0.61	1519.57	1.00	0.006	0.00	0.103		0.0519	0.0027	0.0069		0.0025	0.0011	0.1825	0.2968
S5A	Rep. Flash Gas Compressor	0.46	0.46	280.82	0.05	0.005	0.00	0.037		0.0053	0.0030	—		0.0011	0.0004	0.0664	0.0867
S6A	Replacement VRU Compressor (REM)	0.00	0.00	0.00	0.00	0.000	0.00	0.000	0	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000
S7	Dehy Reboiler Vent	0.15	0.13	183.53	0.23	0.001	0.00	0.012		—	0.0052			0.0000			0.0321
S8	Compressor Engine #5	1.52	0.61	1519.34	1.00	0.006	0.00	0.103		0.0519	0.0027	0.0069		0.0025	0.0011	0.1825	0.2968
S9	Compressor Engine #6	1.52	0.61	1519.34	1.00	0.006	0.00	0.103		0.0519	0.0027	0.0069		0.0025	0.0011	0.1825	0.2968
S10	Compressor Engine #7	1.52	0.61	1519.34	1.00	0.006	0.00	0.103		0.0519	0.0027	0.0069		0.0025	0.0011	0.1825	0.2968
S11	Compressor Engine #8	1.52	0.61	1519.34	1.00	0.006	0.00	0.103		0.0519	0.0027	0.0069		0.0025	0.0011	0.1825	0.2968
S12	Compressor Engine #9 (Previously REM)	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000
S13	Compressor Engine #10 (Previously REM)	0.00	0.00	0.00	0.00	0.000	0.00	0.000		0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000
S14	Truck Loading (Un-Captured)				0.49												
S15	Truck Loading VCU	0.21	1.13	356.30	3.00			0.001									
S15-A	VCU Pilot	0.00	0.00	0.48	0.00			0.000									
	Condensate Tanks Uncaptured Controlled[1] (NEW)				37.57							4.17					4.17
	Tank Vapor Combustion (NEW)	1.55	10.56	3373.42				0.001									
S17	Line Heater	0.08	0.06	90.57	0.00	0.000	0.00	0.006		—	0.0000	0.0014		0.0000	—	0.0001	
S17-A	Line Heater	0.40	0.34	483.11	0.02	0.002	0.00	0.030		—	0.0000	0.0072		0.0000	—	0.0003	0.0075
S17-B	Line Heater	0.20	0.17	241.56	0.01	0.001	0.00	0.015		—	0.0000	0.0036		0.0000	—	0.0002	0.0038
S18	Pigging and Blowdowns				N/A												
S19	Fugitive				0.51												
S20	Compressor #11	2.61	1.04	2306.07	1.72	0.010	0.00	0.161		0.0813	0.0043	0.0108		0.0040	0.0018	0.3135	0.4920
Total		18.24	18.86	19,471	39.97	0.07	0.00	1.08		0.50	0.03	4.25		0.03	0.01	1.84	7.17
	Existing Permit	16.13	7.45	15,913	9.81	0.07	0.00	1.08		0.51	0.04	0.08		0.03	0.01	1.91	3.06
	Change	2.11	11.41	3558.37	30.15	0.00	0.00	0.00		-0.01	-0.01	4.19		0.00	0.00	-0.07	4.11

Source		NOx tpy	CO tpy	CO_{2e} tpy	VOC tpy	SO2 tpy	H2S tpy	PM tpy	Acrolein tpy	Acetaldehyde tpy	Benzene tpy	n-Hexane tpy	Methanol tpy	Toluene tpy	Xylenes tpy	formaldehyde tpy	Total HAPs tpy
S1	Compressor Engine #1	6.66	2.67	6654.70	4.40	0.027	0.00	0.45	0.140	0.227	0.012	0.030	0.068	0.011	0.005	0.800	1.30
S2	Compressor Engine #2	6.66	2.67	6654.70	4.40	0.027	0.00	0.45	0.140	0.227	0.012	0.030	0.068	0.011	0.005	0.800	1.30
S3	Compressor Engine #3	6.66	2.67	6654.70	4.40	0.027	0.00	0.45	0.140	0.227	0.012	0.030	0.068	0.011	0.005	0.800	1.30
S4	Compressor Engine #4	6.66	2.67	6654.70	4.40	0.027	0.00	0.45	0.140	0.227	0.012	0.030	0.068	0.011	0.005	0.800	1.30
S5A	Rep. Flash Gas Compressor	2.02	2.02	1229.98	0.28	0.005	0.00	0.16	0.022	0.023	0.013	—	0.025	0.005	0.002	0.291	0.38
S6A	Replacement VRU Compressor (REM)	0.00	0.00	0.00	0.00	0.000	0.00	0.00		0.000	0.000	—	0.000	0.000	0.000	0.000	0.00
S7	Dehy Reboiler Vent	0.67	0.56	803.88	1.01	0.001	0.00	0.00		—	0.023	0.057	—	0.021	0.022	0.000	0.14
S8	Compressor Engine #5	6.66	2.67	6654.70	4.40	0.027	0.00	0.45	0.140	0.227	0.012	0.030	0.068	0.011	0.005	0.800	1.30
S9	Compressor Engine #6	6.66	2.67	6654.70	4.40	0.027	0.00	0.45	0.140	0.227	0.012	0.030	0.068	0.011	0.005	0.800	1.30
S10	Compressor Engine #7	6.66	2.67	6654.70	4.40	0.027	0.00	0.45	0.140	0.227	0.012	0.030	0.068	0.011	0.005	0.800	1.30
S11	Compressor Engine #8	6.66	2.67	6654.70	4.40	0.027	0.00	0.45	0.140	0.227	0.012	0.030	0.068	0.011	0.005	0.800	1.30
S12	Compressor Engine #9 (Previously REM)	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
S13	Compressor Engine #10 (Previously REM)	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
S14	Truck Loading (Un-captured)				0.54												
S15	Truck Loading VCU	0.06	0.31	97.62	0.82			0.00									
S15-A	VCU Pilot	0.00	0.00	2.09	0.00			0.00									
	Condensate Tanks Uncaptured Controlled[1] (NEW)				40.27							0.08					0.08
	Tank Vapor Combustion	2.57	15.27	4967.44				0.10									
S17	Line Heater	0.33	0.28	2.09	0.02	0.002	0.00	0.02		—	0.000	0.006		0.000	—	0.000	0.01
S17-A	Line Heater	1.75	1.47	2116.04	0.10	0.011	0.00	0.13		—	0.000	0.032		0.000	—	0.001	0.03
S17-B	Line Heater	0.88	0.74	1058.02	0.05	0.005	0.00	0.07		—	0.000	0.016		0.000	—	0.001	0.02
S18	Pigging and Blowdowns				1.70												
S19	Fugitive				2.37												
S20	Compressor Engine #11	11.44	4.58	10100.58	7.55	0.043	0.00	0.71	0.219	0.356	0.019	0.047	0.107	0.017	0.008	1.373	2.16
Total		73.31	46.84	73595.32	89.85	0.28	0.00	4.82	1.36	2.20	0.15	0.48	0.68	0.13	0.08	8.06	19.31
	Existing Permit	70.74	33.55	70,443	89.54	0.27	0.00	4.96	1.36	2.22	0.14	0.06	0.10	0.11	0.08	8.17	12.51
	Change	2.57	13.29	3152.32	0.31	0.01	0.00	-0.14		-0.02	0.01	0.42	0.58	0.02	0.00	-0.11	6.79

[1] Condensate Tank Combustor VOC and HAP Emissions included in Condensate Tank UnCaptured/Uncontrolled.

SE TECHNOLOGIES
98 VANADIUM ROAD
BUILDING D, 2nd FLOOR
BRIDGEVILLE, PA 15017
(412) 221-1100
(412) 257-6103 (FAX)

July 1, 2016

Mr. Jerry Williams
Dept. of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

RE: Public Notice
Eureka Midstream, LLC
Carbide Site
Facility ID No. 103-00049
Application No. R13-3007E

Dear Mr. Williams:

Enclosed please find the following:

☐ Drawings ☐ Calculations ☒ Other

# of Copies	Description
1	Public Notice

These are transmitted as checked below:

☐ Approved ☐ Not Approved ☐ For Review and Comment
☒ For Your Use ☐ For Approval ☒ As Requested

If you have any questions please call me at (412) 221-1100, extension 1628.

Sincerely,

SE Technologies, LLC

Roger A. Dhonau,P.E., QEP
Principal Environmental Engineer

ID # 103-00049
Reg R13-3007E
Company EUREKA MIDSTREAM
Facility CARBIDE Initials dw

Enclosure

NON-CONFIDENTIAL

WETZEL CHRONICLE

New Martinsville, WV ..... June 29 ....., 2016

State of West Virginia, County of Wetzel:

AIR QUALITY PERMIT NOTICE

Notice of Application

Notice is given that Eureka Midstream, LLC has applied to the West Virginia Department of Environmental Protection, Division of Air Quality, for a Modification to its air permit for the Carbide Site on County Route 20/12) in Wetzel County, West Virginia, approximately two road miles east of the community of Hastings.
(Lat. 39.53956 Long.-80.66535)

The applicant estimates the increased potential to discharge the following Regulated Air Pollutants will be:

13.29 tons of Carbon Monoxide per year
0.58 tons of Nitrogen Oxides per year
3.04 tons of n-Hexane per year
19.83 tons of Volatile Organics per year
2,979.71 tons of Greenhouse Gases per year

The facility is currently operational. Written comments will be received by the West Virginia Department of Environmental Protection, Division of Air Quality, 601 57th Street, SE, Charleston, WV 25304, for at least 30 calendar days from the date of publication of this notice.

Any questions regarding this permit application should be directed to the DAQ at (304) 926-0499, extension 1250, during normal business hours.

Dated this the 29th day of June, 2016.

By:
Mr. Chris Akers, Executive Vice President
Eureka Midstream, LLC
1111 Louisiana Street, Suite 4520
Houston, Texas 77002
WC-29 12988

before the undersigned, a Notary Public,

Clutter who, being duly sworn,

nager of the Wetzel Chronicle, a weekly

circulation, published at New Martinsville,

e of West Virginia, and that a copy of the

was published for ..... 1 ..... successive

ronicle, beginning on the ..29..... day

., 2016 and ending on the 29 ..... day

., 2016.

..... Manager, Wetzel Chronicle

Subscribed and sworn to before me, a Notary Public of said County, on this ..... 29 ..... day of ..... June ....., 2016.

..... Notary Public

My commission expires on the 5th day of January, 2021.

Printers Fee.....

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
Diann S. Wright
218 South 2nd Ave
Paden City, WV 26159
My Commission Expires January 05, 2021

Williams, Jerry

From: Ward, Beth A
Sent: Thursday, June 30, 2016 9:33 AM
To: Williams, Jerry
Subject: EUREKA HUNTER PIPELINE LLC PERMIT APPLICATION FEE

This is the receipt for payment received from:

EUREKA HUNTER PIPELINE LLC, CARBIDE SITE, CHECK NUMBER 9666, CHECK DATE 06/27/2016, $2,000.00
R13-3007E ID# 103-00049

OASIS Deposit CR 1600143208

Thank You!

Beth Ward

WV DEPARTMENT OF ENVIRONMENTAL PROTECTION
BTO FISCAL
601 57TH STREET SE
CHARLESTON, WV 25304
(304) 926-0499 EXT 1846
beth.a.ward@wv.gov

NON-CONFIDENTIAL

SE TECHNOLOGIES
98 VANADIUM ROAD
BUILDING D, 2nd FLOOR
BRIDGEVILLE, PA 15017
(412) 221-1100
(412) 257-6103 (FAX)

June 27, 2016

Mr. Jerry Williams
Dept. of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

RE: Application Fee
Eureka Midstream, LLC
Carbide Site
Facility ID No. 103-00049
Application No. R13-3007E

Dear Mr. Williams:

Enclosed please find the following:

☐ Drawings ☐ Calculations ☒ Other

# of Copies	Description
1	Check – Application Fee

These are transmitted as checked below:

☐ Approved ☐ Not Approved ☐ For Review and Comment
☒ For Your Use ☐ For Approval ☒ As Requested

If you have any questions please call me at (412) 221-1100, extension 1628.

Sincerely,

SE Technologies, LLC

Roger A. Dhonau,P.E., QEP
Principal Environmental Engineer

Enclosure

NON-CONFIDENTIAL

Adkins, Sandra K

From: Adkins, Sandra K
Sent: Friday, June 24, 2016 12:06 PM
To: 'cakers@ehp.energy'; Roger Dhonau
Cc: McKeone, Beverly D; Williams, Jerry; Rice, Jennifer L
Subject: WV DAQ Permit Application Status for Eureka Hunter Pipeline, LLC; Carbide Site

RE: Application Status
Eureka Hunter Pipeline, LLC
Carbide Site
Facility ID No. 103-00049
Application No. R13-3007E

Mr. Akers,

Your application for a modification permit for the Carbide Site was received by this Division on June 23, 2016, and was assigned to Jerry Williams. The following items were not included in the initial application submittal:

Original affidavit for Class I legal advertisement not submitted.

Application fee AND/OR additional application fees:
**$1,000 Construction, Modification, Relocation or Temporary Permit*
**$1,000 NSPS*
(SE Technologies, LLC check number 9620 in the amount of $1,000.00 is being returned. The check is made payable to the Commonwealth of Pennsylvania and we cannot deposit.)

These items are necessary for the assigned permit writer to continue the 30-day completeness review.

Within 30 days, you should receive a letter from Jerry Williams stating the status of the permit application and, if complete, given an estimated time frame for the agency's final action on the permit.

Any determination of completeness shall not relieve the permit applicant of the requirement to subsequently submit, in a timely manner, any additional or corrected information deemed necessary for a final permit decision.

Should you have any questions, please contact the assigned engineer, Jerry Williams, at 304-926-0499, extension 1223.

Our records indicate the name associated with facility id 103-00049 is Eureka Hunter Pipeline, LLC; however, on the application the name is Eureka Midstream, LLC. Please refer to the Change of Ownership section on our website:

http://www.dep.wv.gov/daq/permitting/Pages/Change-of-Ownership.aspx

103-00049 Modification
R13-3007E Jerry

45CSR13 Administrative Update, Construction, Modification, Relocation, Temporary Permit or General Permit Registration Incomplete Application

A complete application is demonstrated when all of the information required below is properly prepared, completed and attached. The items listed below are required information which must be submitted with a 45CSR13 permit application. Any submittal will be considered incomplete if the required information is not included. The applicant must submit a complete application in order to receive a 45CSR13 permit.

- ☒ Class I legal advertisement not published in a newspaper certified to accept legal advertisements and original affidavit submitted.
- ☒ Application fee AND/OR additional application fees not included:
  - ☐ $250 Class I General Permit
  - ☐ $300 Class II Administrative Update
  - ☐ $1,000 Construction, Modification, Relocation or Temporary Permit
  - ☐ $500 Class II General Permit
  - ☒ $1,000 NSPS
  - ☐ $2,500 NESHAP
  - ☐ $2,500 45CSR27 Pollutant
  - ☐ $5,000 Major Modification
  - ☐ $10,000 Major Construction
- ☐ Original and two (2) copies of the application not submitted.
- ☐ File organization – application pages are not numbered or in correct order, application is not bound in some way, etc.
- ☐ Confidential Business Information is not properly identified.
- ☐ General application forms not completed and signed by a responsible official.
- ☐ Authority of Corporation form not included – required if application is signed by someone other than a responsible official.
- ☐ Applicant is not registered with the West Virginia Secretary of State's Office.
- ☒ Copy of current Business Registration Certificate not included. Contact Jennifer Lee for Name Change – Permit will be issued to Eureka Hunter Pipeline LLC Pager Name change is submitted
- ☐ Process description, including equipment and emission point identification numbers, not submitted.
- ☐ Process flow diagram, including equipment and emission point identification numbers, not submitted.
- ☐ Plot plan, including equipment and emission point identification numbers, not submitted.
- ☐ Applicable technical forms not completed and submitted:
  - ☐ Emission Point Data Summary Sheets
  - ☐ Emission Unit Data Sheets
  - ☐ Air Pollution Control Device Sheets
  - ☐ Equipment List Form
- ☐ Emission calculations not included – emission factors, references, source identification numbers, etc.
- ☐ Electronic submittal diskette not included.