



west virginia department of environmental protection

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ENGINEERING EVALUATION / FACT SHEET

BACKGROUND INFORMATION

Application No.: R13-3035
Plant ID No.: 095-00021
Applicant: Triad Hunter, LLC (Triad)
Facility Name: Spencer Well Pad Station
Location: Middlebourne, Tyler County
NAICS Code: 486210
Application Type: Construction
Received Date: January 11, 2013
Engineer Assigned: Jerry Williams, P.E.
Fee Amount: \$2,000.00
Date Received: January 11, 2013
Complete Date: February 13, 2013
Due Date: May 14, 2013
Applicant Ad Date: January 23, 2013
Newspaper: *Tyler Star News*
UTM's: Easting: 507.605 km Northing: 4,372.161 km Zone: 17
Description: The Spencer Well Pad Station is a natural gas production well pad with two (2) main compressor units, one (1) flash gas compressor, one (1) glycol dehydration unit, one (1) reboiler, four (4) gas production units (GPU), eight (8) condensate tanks, five (5) miscellaneous tanks, truck loading, and associated fugitive emissions.

DESCRIPTION OF PROCESS

The following process description was taken from Permit Application R13-3035:

Natural gas and produced fluids (condensate and water) are received from the wells located on this pad at approximately 900-1,000 psi. These materials then pass through a separator where gas and produced fluids are separated. The gas is routed directly to one (1) of two (2) main compression units and then to a triethylene glycol (TEG) dehydration unit where the water vapor content in the gas flow is reduced to required concentrations. Upon completion of dehydration, the gas is discharged to a gathering line owned and operated by others.

The produced fluids are routed to a series of eight (8) 400 barrel (bbl) atmospheric tanks prior to transportation via truck to others for further processing. As the tanks will contain a significant percentage of condensate, capture and control of the vapors is warranted. Thus, emissions from these tanks will be collected and compressed by vapor recovery unit (VRU) otherwise known as a flash gas compressor whereby the vapors are sufficiently compressed to be introduced into the inlet gas line and processed with the inlet gas. In addition, truck loading will take place with a vapor balance system in place, whereby vapors generated during the loading operation are routed back to the tanks and ultimately captured by the VRU. A variety of other tanks with negligible emissions will be located at this facility.

The glycol dehydration unit will be equipped with a flash tank and condenser. Vapors off of these devices will be routed to the reboiler for use as fuel.

SITE INSPECTION

A site inspection was conducted by Douglas Hammel of the DAQ Enforcement Section in September 2012. Mr. Hammel stated that the site was an acceptable location and was more than 1000 feet to the closest residence.

Directions to the facility (Latitude: 39.499033, Longitude: -80.911550) as given in the permit application are as follows:

From New Martinsville: Travel south on State Route 2 approximately one (1) mile to the intersection with State Route 180. Continue on State Route 180 until it ends at State Route 18. Turn left on State Route 18 and continue into the town of Middlebourne. At the end of town, turn west on to Bridgeway Road. After crossing the creek (approximately 100 feet), turn right and then immediately left onto CR26. At the top of the hill go through the lease gate to the site.



ESTIMATE OF EMISSIONS BY REVIEWING ENGINEER

Emissions associated with this construction application consist of the combustion emissions from the two (2) 1,380 horsepower (hp) compressor engines (1E, 2E), one (1) 95 hp flash gas compressor (3E), one (1) 40 million standard cubic feet per day (mmscfd) TEG dehydration unit and 0.5 million British Thermal Units per hour (MMBtu/hr) reboiler (4E), four (4) Gas Production Units (GPU) (5E), eight (8) condensate tanks, five (5) miscellaneous tanks, truck loading, and fugitive emissions. The following table indicates which methodology was used in the emissions determination:

Emission Unit ID#	Process Equipment	Calculation Methodology
1S	1,380 hp Caterpillar 3516B Compressor Engine equipped with Emit Technologies Oxidation Catalyst	Manufacturer's Data
2S	1,380 hp Caterpillar 3516B Compressor Engine equipped with Emit Technologies Oxidation Catalyst	Manufacturer's Data
3S	95 hp Caterpillar 3304 NA Compressor Engine equipped with Miratech Oxidation Catalyst	Manufacturer's Data
4S	40 mmscfd TEG Dehydration Unit Still Vent equipped with condenser and routing the emissions back to the flame zone of the reboiler	GRI GlyCalc
4S	0.5 MMBtu/hr Reboiler	EPA AP-42 Emission Factors
5S	0.012 MMBTU/hr GPU Burners (4)	EPA AP-42 Emission Factors
T01-T08	Eight (8) 400 bbl Condensate Tanks routed to the flash gas compressor	E&P Tanks Emission Software
Truck Loading	Condensate Truck Loading routed to the flash gas compressor	EPA AP-42 Emission Factors

Fugitive emissions for the facility are based on calculation methodologies presented in the EPA Protocol for Equipment Leak Emission Estimates.

Maximum controlled point source emissions were calculated by Triad and checked for accuracy by the writer and are summarized in the table below.

Emission Point ID	Emission Unit ID	Process Unit	Pollutant	Maximum Controlled Emission Rate	
				Hourly (lb/hr)	Annual (ton/year)
1S	1E	1,380 HP Caterpillar 3516B 4SLB Compressor Engine	Nitrogen Oxides	1.52	6.66
			Carbon Monoxide	4.41	19.32
			Sulfur Dioxide	<0.01	0.03
			Particulate Matter-10	0.11	0.45
			Volatile Organic Compounds	1.22	5.33
			Formaldehyde	0.75	3.28
			Total HAPs	0.90	3.92
Carbon Dioxide Equivalent	1,442	6,316			
2S	2E	1,380 HP Caterpillar 3516B 4SLB Compressor Engine	Nitrogen Oxides	1.52	6.66
			Carbon Monoxide	4.41	19.32
			Sulfur Dioxide	<0.01	0.03
			Particulate Matter-10	0.11	0.45
			Volatile Organic Compounds	1.22	5.33
			Formaldehyde	0.75	3.28
			Total HAPs	0.90	3.92
Carbon Dioxide Equivalent	1,442	6,316			
3S	3E	95 HP Caterpillar 3304 NA 4SRB Compressor Engine	Nitrogen Oxides	0.21	0.92
			Carbon Monoxide	0.21	0.92
			Sulfur Dioxide	<0.01	<0.01
			Particulate Matter-10	0.02	0.06
			Volatile Organic Compounds	0.10	0.46
			Formaldehyde	0.02	0.07
			Total HAPs	0.03	0.11
Carbon Dioxide Equivalent	103	451			

4S	4E	40 mmscfd TEG Dehy + 0.5 MMBtu/hr Reboiler	Nitrogen Oxides	0.05	0.20
			Carbon Monoxide	0.04	0.17
			Sulfur Dioxide	<0.01	<0.01
			Particulate Matter-10	<0.01	0.02
			Volatile Organic Compounds	0.941	4.12
			Benzene	0.01	0.05
			Ethylbenzene	<0.01	0.04
			Toluene	0.01	0.04
			Xylenes	0.01	0.05
			n-Hexane	0.02	0.07
			Total HAPs	0.06	0.25
Carbon Dioxide Equivalent	55	283			
5S	5E	Four (4) 0.012 MMBTU/hr Gas Production Unit (GPU) Burners (Each)	Nitrogen Oxides	<0.01	0.02
			Carbon Monoxide	<0.01	0.02
			Sulfur Dioxide	<0.01	<0.01
			Particulate Matter-10	<0.01	<0.01
			Volatile Organic Compounds	<0.01	<0.01
			Formaldehyde	<0.01	<0.01
			Total HAPs	<0.01	<0.01
			Carbon Dioxide Equivalent	5	23
T01-T08	T01-T08	8 – 400 bbl Condensate Tanks	Volatile Organic Compounds	4.33	18.96
			Total HAPs	0.06	0.26
Truck Loading	Truck Loading	Condensate Truck Loading	Volatile Organic Compounds	6.76	7.68
			Total HAPs	0.09	0.40
FUG	FUG	Fugitive Emissions	Volatile Organic Compounds	0.32	1.47
			Total HAPs	<0.01	<0.01

The following table represents the total facility emissions:

Pollutant	Maximum Annual Facility Wide Emissions (tons/year)
Nitrogen Oxides	14.46
Carbon Monoxide	39.74
Volatile Organic Compounds	43.44
Total Particulate Matter	0.99
Sulfur Dioxide	0.06
Formaldehyde	6.63
Total HAPs	8.84
Carbon Dioxide Equivalent	13,349

REGULATORY APPLICABILITY

Unless otherwise stated WVDEP DAQ did not determine whether the permittee is subject to an area source air toxics standard requiring Generally Achievable Control Technology (GACT) promulgated after January 1, 2007 pursuant to 40 CFR 63, including the area source air toxics provisions of 40 CFR 63, Subpart ZZZZ.

The following rules apply to the facility:

45CSR2 (Particulate Air Pollution from Combustion of Fuel in Indirect Heat Exchangers)

The purpose of 45CSR2 (Particulate Air Pollution from Combustion of Fuel in Indirect Heat Exchangers) is to establish emission limitations for smoke and particulate matter which are discharged from fuel burning units.

45CSR2 states that any fuel burning unit that has a heat input under ten (10) million B.T.U.'s per hour is exempt from sections 4 (weight emission standard), 5 (control of fugitive particulate matter), 6 (registration), 8 (testing, monitoring, recordkeeping, reporting) and 9 (startups, shutdowns, malfunctions). However, failure to attain acceptable air quality in parts of some urban areas may require the mandatory control of these sources at a later date.

The individual heat input of the proposed fuel burning units (5S) are below 10 MMBTU/hr. Therefore, these units are exempt from the aforementioned sections of 45CSR2. However, Triad would be subject to the opacity requirements in 45CSR2, which is 10% opacity based on a six minute block average.

45CSR10 (To Prevent and Control Air Pollution from the Emissions of Sulfur Oxides)

45CSR10 states that any fuel burning unit that has a heat input under ten (10) million B.T.U.'s per hour is exempt from sections 3 (weight emission standard), 6 (registration), 7 (permits), and 8 (testing, monitoring, recordkeeping, reporting). However, failure to attain acceptable air quality in parts of some urban areas may require the mandatory control of these sources at a later date.

The individual heat input of the proposed fuel burning units (5S) are below 10 MMBTU/hr. Therefore, these units are exempt from the aforementioned sections of 45CSR10.

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)

45CSR13 applies to this source due to the fact that Triad is defined as a “stationary source” under 45CSR13 Section 2.24.b, which states that an owner or operator discharges or has the potential to discharge more than six (6) pounds per hour and ten (10) tons per year, or has the potential to discharge more than 144 pounds per calendar day of any regulated air pollutant. Triad has published the required Class I legal advertisement notifying the public of their permit application, and paid the appropriate application fee (construction).

45CSR22 (Air Quality Management Fee Program)

This facility is a minor source and not subject to 45CSR30. Triad is required to keep their Certificate to Operate current.

40CFR60 Subpart JJJJ (Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (SI ICE))

The three (3) proposed engines that Triad plans to install are subject to this rule.

The two (2) proposed 1,380 hp compressor engines will be subject to the following emission standards:

NO_x: 1.0 g/HP-hr (3.04 lb/hr)
CO: 2.0 g/HP-hr (6.08 lb/hr)
VOC: 0.7 g/HP-hr (2.13 lb/hr)

The proposed 95 hp compressor engine will be subject to the following emission standards:

NO_x: 1.0 g/HP-hr (0.21 lb/hr)

CO: 2.0 g/HP-hr (0.42 lb/hr)

VOC: 0.7 g/HP-hr (0.15 lb/hr)

The proposed engine meets these standards.

40CFR60 Subpart OOOO (Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution)

EPA published in the Federal Register new source performance standards (NSPS) and air toxics rules for the oil and gas sector on August 16, 2012. 40CFR60 Subpart OOOO establishes emission standards and compliance schedules for the control of volatile organic compounds (VOC) and sulfur dioxide (SO₂) emissions from affected facilities that commence construction, modification or reconstruction after August 23, 2011. The following affected sources which commence construction, modification or reconstruction after August 23, 2011 are subject to the applicable provisions of this subpart:

- a. Each gas well affected facility, which is a single natural gas well.

The gas wells that currently exist at the Spencer Well Pad Station were drilled principally for the production of natural gas and were done so after August 23, 2011. Therefore, these wells would be considered affected facilities under this subpart. The compliance date for these hydraulically fractured wells is October 15, 2012. Triad is required under §60.5410 to submit an initial notification, initial annual report, maintain a log of records for each well completion, and maintain records of location and method of compliance. §60.5420 requires Triad demonstrate continuous compliance by submitting reports and maintaining records for each completion operation.

- b. Each centrifugal compressor affected facility, which is a single centrifugal compressor using wet seals that is located between the wellhead and the point of custody transfer to the natural gas transmission and storage segment. For the purposes of this subpart, your centrifugal compressor is considered to have commenced construction on the date the compressor is installed (excluding relocation) at the facility. A centrifugal compressor located at a well site, or an adjacent well site and servicing more than one well site, is not an affected facility under this subpart.

There are no centrifugal compressors at the Spencer Well Pad Station. Therefore, all requirements regarding centrifugal compressors under 40 CFR 60 Subpart OOOO would not apply.

- c. Each reciprocating compressor affected facility, which is a single reciprocating

compressor located between the wellhead and the point of custody transfer to the natural gas transmission and storage segment. For the purposes of this subpart, your reciprocating compressor is considered to have commenced construction on the date the compressor is installed (excluding relocation) at the facility. A reciprocating compressor located at a well site, or an adjacent well site and servicing more than one well site, is not an affected facility under this subpart.

There are three (3) reciprocating internal combustion engines located at the Spencer Well Pad Station. These engines will be delivered after the effective date of this rule. However, §60.5365(c) states that a reciprocating compressor located at a well site, or an adjacent well site and servicing more than one well site, is not an affected facility under this subpart. Therefore, all requirements regarding reciprocating compressors under 40 CFR 60 Subpart OOOO would not apply.

d. Pneumatic Controllers

- Each pneumatic controller affected facility, which is a single continuous bleed natural gas-driven pneumatic controller operating at a natural gas bleed rate greater than 6 scfh which commenced construction after August 23, 2011, and is located between the wellhead and the point of custody transfer to the natural gas transmission and storage segment and not located at a natural gas processing plant.
- Each pneumatic controller affected facility, which is a single continuous bleed natural gas-driven pneumatic controller which commenced construction after August 23, 2011, and is located at a natural gas processing plant.

There are no natural gas driven pneumatic controllers at the Spencer Well Pad Station. Therefore, all requirements regarding pneumatic controllers under 40 CFR 60 Subpart OOOO would not apply.

e. Each storage vessel affected facility, which is a single storage vessel, located in the oil and natural gas production segment, natural gas processing segment or natural gas transmission and storage segment.

40CFR60 Subpart OOOO defines a storage vessel as a unit that is constructed primarily of nonearthen materials (such as wood, concrete, steel, fiberglass, or plastic) which provides structural support and is designed to contain an accumulation of liquids or other materials. The following are not considered storage vessels:

- Vessels that are skid-mounted or permanently attached to something that is mobile (such as trucks, railcars, barges or ships), and are intended to be located at a site for less than 180 consecutive days. If the source does not keep or are not able to produce records, as required by §60.5420(c)(5)(iv), showing that the vessel has been located at a site for less than 180 consecutive days, the vessel described herein is considered to be a storage vessel since the original vessel was first located at the site.
- Process vessels such as surge control vessels, bottoms receivers or knockout vessels.
- Pressure vessels designed to operate in excess of 204.9 kilopascals and without emissions to the atmosphere.

This rule requires that the permittee determine the VOC emission rate for each storage vessel affected facility utilizing a generally accepted model or calculation methodology within 30 days of startup, and minimize emissions to the extent practicable during the 30 day period using good engineering practices. For each storage vessel affected facility that emits more than 6 tpy of VOC, the permittee must reduce VOC emissions by 95% or greater within 60 days of startup. The compliance date for applicable storage vessels is October 15, 2013.

The storage vessels located at the Spencer Well Pad Station are controlled by a vapor combustor and emit less than 6 tpy of VOC. Therefore, Triad is not required by this section to reduce VOC emissions by 95%.

- f. The group of all equipment, except compressors, within a process unit is an affected facility.
- Addition or replacement of equipment for the purpose of process improvement that is accomplished without a capital expenditure shall not by itself be considered a modification under this subpart.
 - Equipment associated with a compressor station, dehydration unit, sweetening unit, underground storage vessel, field gas gathering system, or liquefied natural gas unit is covered by §§60.5400, 60.5401, 60.5402, 60.5421 and 60.5422 of this subpart if it is located at an onshore natural gas processing plant. Equipment not located at the onshore natural gas processing plant site is exempt from the provisions of §§60.5400, 60.5401, 60.5402, 60.5421 and 60.5422 of this subpart.
 - The equipment within a process unit of an affected facility located at onshore natural gas processing plants and described in paragraph (f) of

this section are exempt from this subpart if they are subject to and controlled according to subparts VVa, GGG or GGGa of this part.

The Spencer Well Pad Station is not a natural gas processing plant. Therefore, Leak Detection and Repair (LDAR) requirements for onshore natural gas processing plants would not apply.

- g. Sweetening units located at onshore natural gas processing plants that process natural gas produced from either onshore or offshore wells.
- Each sweetening unit that processes natural gas is an affected facility; and
 - Each sweetening unit that processes natural gas followed by a sulfur recovery unit is an affected facility.
 - Facilities that have a design capacity less than 2 long tons per day (LT/D) of hydrogen sulfide (H₂S) in the acid gas (expressed as sulfur) are required to comply with recordkeeping and reporting requirements specified in §60.5423(c) but are not required to comply with §§60.5405 through 60.5407 and paragraphs 60.5410(g) and 60.5415(g) of this subpart.
 - Sweetening facilities producing acid gas that is completely reinjected into oil-or-gas-bearing geologic strata or that is otherwise not released to the atmosphere are not subject to §§60.5405 through 60.5407, 60.5410(g), 60.5415(g), and 60.5423 of this subpart.

There are no sweetening units at the Spencer Well Pad Station. Therefore, all requirements regarding sweetening units under 40 CFR 60 Subpart OOOO would not apply.

40CFR63 Subpart ZZZZ (National Emission Standards for Reciprocating Ignition Internal Combustion Engines)

40CFR63 Subpart HH (National Emission Standards for Hazardous Air Pollutants: Oil and Natural Gas Production and National Emission Standards for Hazardous Air Pollutants: Natural Gas Transmission and Storage)

WVDEP DAQ did not determine whether the permittee is subject to an area source air toxics standard requiring Generally Achievable Control Technology (GACT) promulgated after January 1, 2007 pursuant to 40 CFR 63, including the area source air toxics provisions of 40 CFR 63, Subpart HH and 40 CFR 63, Subpart ZZZZ.

These promulgated national emission standards for hazardous air pollutants (NESHAP) limit emissions of hazardous air pollutants (HAP) from oil and natural gas production and natural gas transmission and storage facilities. These final rules implement section 112 of the Clean Air Act (Act) and are based on the Administrator's determination that oil and natural gas production and natural gas transmission and storage facilities emit HAP identified on the EPA's list of 188 HAPs.

The following rules do not apply to the facility:

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

40CFR60 Subpart Kb does not apply to storage vessels with a capacity less than 75 cubic meters. The largest tanks that Triad has proposed to install are 63.60 cubic meters each. Therefore, Triad would not be subject to this rule.

40CFR60 Subpart KKK (Standards of Performance for Equipment Leaks of VOC from Onshore Natural Gas Processing Plants)

40CFR60 Subpart KKK applies to onshore natural gas processing plants that commenced construction after January 20, 1984, and on or Before August 23, 2011. The Spencer Well Pad Station was constructed after August 23, 2011 and is not a natural gas processing plant, therefore, Triad would not be subject to this rule.

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 Spencer Well Pad Station is located in Tyler County, which is an attainment county for all pollutants, therefore the Spencer Well Pad Station is not applicable to 45CSR19.

As shown in the table below, Triad is not subject to 45CSR14 or 45CSR19 review.

Pollutant	PSD (45CSR14) Threshold (tpy)	NANSR (45CSR19) Threshold (tpy)	Triad PTE (tpy)	45CSR14 or 45CSR19 Review Required?
Carbon Monoxide	250	NA	39.74	No
Nitrogen Oxides	250	NA	14.46	No
Sulfur Dioxide	250	NA	0.06	No
Particulate Matter 2.5	250	NA	0.99	No
Ozone (VOC)	250	NA	43.44	No
Greenhouse Gas (CO ₂ e)	100,000	NA	13,349	No

TOXICITY OF NON-CRITERIA REGULATED POLLUTANTS

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

AIR QUALITY IMPACT ANALYSIS

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

SOURCE AGGREGATION

This application was originally submitted by Eureka Hunter Pipeline for a G35-A General Permit for a natural gas production facility and was received by this Division on December 3, 2012. Upon initial review of said application, it was determined that the application is ineligible for registration under General Permit G35-A.

This permit application was submitted in a different ownership format from the original submittal of September 11, 2012. This submittal indicates that the purpose of this facility will be to receive raw gas and entrained produced liquids from local production wells from both the contiguous well pad and more remote well pads. The application also states that the separation of the liquids from the gas stream, storage and disposal of liquids will be the responsibility of the well pad owner. This is in contrast with the original permit application.

In addition, this application states that Eureka will receive natural gas from the adjacent Triad well pad along with natural gas from other Triad well pads in the area, establishing dependency between the two facilities.

Under USEPA and WVDEP-DAQ policy, "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 Spencer Well Pad Station is located in Tyler County and will be operated by Eureka, who is owner and operator.

"Contiguous or Adjacent" determinations are made on a case by case basis. These determinations are proximity based, and it is important to focus on this and whether or not it meets the common sense notion of a plant. The terms "contiguous" or "adjacent" are not defined by USEPA. Contiguous has a dictionary definition of being in actual contact; touching along a boundary or at a point. Adjacent has a dictionary definition of not distant; nearby; having a common endpoint or border. **The Spencer Compressor Station is located on contiguous property with one of the well sites it will be servicing.**

The Spencer Compressor Station will operate under SIC code 1311 (Crude Petroleum and Natural Gas Extraction). Both contiguous facilities share the same two-digit major SIC code of 13 for oil and gas exploration and production. **Therefore, the Spencer Compressor Station does share the same SIC code as the wells and surrounding compressor stations.**

According to Eureka, Triad Hunter currently owns and operates natural gas wells, separators and storage tanks at its Spencer well pad and other well pads in the area. However, Eureka has arranged with Triad Hunter to utilize space available on the well pad site to install natural gas compression and dehydration equipment. Triad is responsible for removing liquids

from the gas stream prior to compression. The compression equipment is necessary to deliver the natural gas from Triad into the Eureka pipeline. Triad's natural gas will be transported by the Eureka pipeline to one of several area processing plants. Installation of the Spencer Compressor Station is necessary for Triad to market and deliver their produced natural gas. Triad will continue to be the owner of the natural gas with Eureka charging a fee for the gas gathering services. The application further states that Eureka and Triad are separate entities with different owners.

In review of these statements, the following conclusion has been made. The proposed facility that Eureka has planned to locate on Triad's property establishes a possible control relationship. Once this occurs, a list of questions exist that must be answered that have been developed through USEPA guidance and prior determinations. The answers to these questions assist in making a common control and support facility determination.

A. Common control that is established through ownership.

- I. Do the facilities share common workforces, plant managers, security forces, corporate executive officers, or board of executives?

According to the permit application, Eureka has stated that the facilities do not share these services.

- II. Will managers or other workers be shared or involved actively at both facilities?

According to the permit application, Eureka will not share a common work force.

- III. Do the facilities share common payroll activities, employee benefits, health plans, retirement funds, insurance coverage, or other administrative functions?

These issues were not addressed in the permit application.

B. Common control that is established through decision making authority.

- I. What are the contractual arrangements for providing goods and services?

The permit application states Triad Hunter currently owns and operates natural gas wells, separators and storage tanks at its Spencer well pad and other well pads in the area. However, Eureka has arranged with Triad Hunter to utilize space available on the well pad site to install natural gas compression and dehydration equipment. Triad is responsible for removing liquids from the gas stream prior to compression. The compression equipment is necessary to deliver the natural gas from Triad into the Eureka pipeline. Triad's natural gas will be transported by the

Eureka pipeline to one of several area processing plants. Installation of the Spencer Compressor Station is necessary for Triad to market and deliver their produced natural gas. Triad will continue to be the owner of the natural gas with Eureka charging a fee for the gas gathering services.

- II. Do the facilities share equipment, other property, or pollution control equipment? Can the managing entity of one facility make decisions that affect pollution control at the other facility?

According to the permit application, Eureka and Triad will not share equipment operating responsibilities. Each is responsible for the purchase, installation, operation and maintenance of its equipment.

- C. Does a support and/or dependency relationship exist between the two companies such that a common control relationship exists?

- I. A determination of common control may be made on the basis of indirect control, such as when the goods or services provided by a collocated, contract-for-service entity are integral to or contribute to the output provided by a separately 'owned or operated' activity with which it operates or supports.

These facilities are collocated and Eureka is a contract-for-service entity for Triad Hunter.

- II. Where more than 50% of the output or services provided by one facility is dedicated to another facility that it supports, then a support facility relationship is presumed to exist. When a support facility is established, such as in this case, a common control relationship does exist.

According to the permit application, Eureka exists in its entirety to support Triad Hunter.

Because the facilities 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 (support facility), the emissions from both facilities must be aggregated in determining major source or PSD status.

Therefore, Triad has submitted this current application to reflect this aggregation determination.

MONITORING OF OPERATIONS

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

1. Monitor and record quantity of natural gas consumed for the engine, and combustion sources.
2. Monitor opacity from all fuel burning units.
3. Monitor and record quantity of condensate produced by the BTEX Eliminator.
4. Monitor and report any malfunctions associated with the BTEX Eliminator.
5. Maintain records of the natural gas throughput to the glycol dehydration unit.
6. Monitor the tanks to ensure that all vapors are sent to vapor combustor.
7. Monitor the condensate truck loading to ensure that vapor return/combustion is used.
8. 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
9. Maintain the corresponding records specified by the on-going monitoring requirements of and testing requirements of the permit.
10. Maintain records of the visible emission opacity tests conducted per the permit.
11. 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.
12. The records shall be maintained on site or in a readily available off-site location maintained by Triad for a period of five (5) years.

RECOMMENDATION TO DIRECTOR

The information provided in the permit application indicates Triad's Spencer Well Pad Station meets all the requirements of applicable regulations. Therefore, impact on the surrounding area should be minimized and it is recommended that the Tyler County location should be granted a 45CSR13 construction permit for their facility.

Jerry Williams, P.E.
Engineer

Date