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# ENGINEERING EVALUATION / FACT SHEET

## BACKGROUND INFORMATION

| | |
|---|---|
| Application No.: | R13-3212 |
| Plant ID No.: | 051-00127 |
| Applicant: | Williams Ohio Valley Midstream LLC (Williams) |
| Facility Name: | Groves Dehydration Station |
| Location: | Cameron, Marshall County |
| SIC Code: | 1389 |
| NAICS Code: | 213112 |
| Application Type: | Modification |
| Received Date: | September 19, 2014 |
| Engineer Assigned: | Jerry Williams, P.E. |
| Fee Amount: | $3,500 |
| Date Received: | September 25, 2014 |
| Complete Date: | October 10, 2014 |
| Due Date: | January 8, 2015 |
| Applicant Ad Date: | September 17, 2014 |
| Newspaper: | *The Daily Echo* (Moundsville) |
| UTM's: | Easting: 535.00 km Northing: 4,414.35 km Zone: 17 |
| Description: | 'After the fact' permit and operation of a natural gas dehydration station. |

ID # 51-127
Reg R13-3212
Company Williams OVM
Facility GROVES Initials JW

DESCRIPTION OF PROCESS

The following process description was taken from Permit Application R13-3212:

*Dehydrator*
One (1) 5.0 million standard cubic feet per day (mmscfd) triethylene glyol (TEG) dehydrator (DH-01) will be utilized at the facility. The dehydrator is comprised of a contactor/absorber tower (no vented emissions), a flash tank, and a regenerator/still vent.

The dehydrator removes water vapor from the inlet wet gas stream to meet pipeline specifications. In the dehydration process, the wet inlet gas stream flows through a contactor tower (absorber) where the gas is contacted with lean glycol. The lean glycol absorbs the water in the gas stream and becomes rich glycol laden with water and trace amounts of hydrocarbons. The rich glycol is then routed to a flash tank where the glycol pressure is reduced to liberate the lighter end hydrocarbons. Whenever practical, the lighter end hydrocarbons are routed from the flash tank to the reboiler for use as fuel; otherwise these off-gases are vented to the atmosphere. The rich glycol is then sent to the regenerator/still vent where the glycol is heated to drive off the water vapor and any remaining hydrocarbons. Once boiled, the glycol is returned to a lean state and used again in the process.

*Reboiler*
One (1) 0.20 million British Thermal Units per hour (MMBTU/hr) glycol (TEG) reboiler (RBV-01) is utilized to supply heat for the TEG regenerator/still vent.

*Glycol and Methanol Storage Tanks*
There are small tanks with insignificant emissions for glycol and methanol storage.

*Fugitive Emissions*
During routine operation of the facility there will be occasional leaks from process piping components such as valves, flanges, connectors, etc. Leaks from the process piping components result in VOC and HAP emissions to the atmosphere.

SITE INSPECTION

Due to the nature of the modification, the writer did not conduct a site inspection. According to information in the DAQ database, the last on-site inspection occurred on September 17, 2013 by Mr. Steven Sobutka of the Compliance/Enforcement Section. The facility was given a status code of "30 - In Compliance" as a result of the inspection.

Latitude: 39.878481
Longitude: -80.590694

ESTIMATE OF EMISSIONS BY REVIEWING ENGINEER

Emissions associated with this permit application consist of one TEG dehydrator reboiler (BLR-01), one (1) TEG dehydrator still vent (DH-01) and process piping fugitive emissions (FUG). Fugitive emissions for the facility are based on calculation methodologies presented in AP-42 and 40 CFR Part 98 greenhouse gas (GHG) emission factors. The following table indicates which methodology was used in the emissions determination:

| Emission Unit ID# | Process Equipment | Calculation Methodology |
|---|---|---|
| BLR-01 | 0.20 MMBtu/hr TEG Dehydrator Reboiler | EPA AP-42 Emission Factors |
| DH-01 | 5.0 mmscfd TEG Dehydrator Still Vent (Partial Recycle Emissions to Reboiler) | GRI-GlyCalc 4.0 |
| FUG | Process Piping Fugitive Emissions | EPA AP-42, 40 CFR Part 98 Emission Factors |

The total facility PTE for the Groves Dehydration Station is shown in the following table:

| Pollutant | Facility Wide PTE (tons/year) |
|---|---|
| Nitrogen Oxides | 0.10 |
| Carbon Monoxide | 0.08 |
| Volatile Organic Compounds | 19.67 |
| Particulate Matter-10 | 0.01 |
| Sulfur Dioxide | <0.01 |
| Total HAPs | 6.28 |
| Carbon Dioxide Equivalent | 965 |

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

# Williams Ohio Valley Midstream, LLC – Groves Dehydration Station (R13-3212)

| Emission | Source | $NO_x$ | | CO | | VOC | | PM-10/2.5 | | $SO_2$ | | Formaldehyde | | Total HAPs | | $CO_2e$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Unit 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 |
| CE-01 | Cat G342NA Engine | 0.05 | 0.22 | 0.99 | 4.35 | 0.28 | 1.22 | 0.04 | 0.18 | <0.01 | <0.01 | 0.03 | 0.13 | 0.05 | 0.24 | 1191 |
| CE-02 | Cat G398TA Engine | 0.69 | 3.02 | 0.69 | 3.04 | 0.09 | 0.39 | 0.11 | 0.49 | <0.01 | 0.01 | 0.03 | 0.14 | 0.05 | 0.20 | 3117 |
| CE-03 | Cat G3612LE Engine | 3.91 | 17.14 | 2.15 | 9.43 | 2.85 | 12.48 | 0.26 | 1.14 | 0.02 | 0.07 | 0.31 | 1.34 | 0.56 | 2.44 | 19813 |
| CE-04 | Cat G3612LE Engine | 3.91 | 17.14 | 2.15 | 9.43 | 2.85 | 12.48 | 0.26 | 1.14 | 0.02 | 0.07 | 0.31 | 1.34 | 0.56 | 2.44 | 19813 |
| CE-05 | Cat G3612LE Engine | 3.91 | 17.14 | 2.15 | 9.43 | 2.85 | 12.48 | 0.26 | 1.14 | 0.02 | 0.07 | 0.31 | 1.34 | 0.56 | 2.44 | 19813 |
| SSM | Startup, Shutdown, Main | - | - | - | - | NA | 11.00 | - | - | - | - | - | - | NA | 1.16 | 4112 |
| RPC | Rod Packing/Crankcase | - | - | - | - | 2.97 | 13.00 | - | - | - | - | 0.05 | 0.22 | 0.34 | 1.50 | 4717 |
| GE-01 | Emergency Generator | 0.93 | 0.23 | 29.10 | 7.28 | 0.38 | 0.10 | 0.03 | <0.01 | <0.01 | <0.01 | 0.03 | 0.01 | 0.05 | 0.01 | 42 |
| H-01 | TXP1 Hot Oil Heater | 1.09 | 4.76 | 0.91 | 4.00 | 0.06 | 0.26 | 0.08 | 0.36 | <0.01 | 0.03 | <0.01 | <0.01 | 0.02 | 0.09 | 5686 |
| H-02 | TXP1 Regen Gas Heater | 0.52 | 2.26 | 0.43 | 1.90 | 0.03 | 0.12 | 0.04 | 0.17 | <0.01 | 0.01 | <0.01 | <0.01 | <0.01 | 0.04 | 2695 |
| H-03 | TXP2 Regen Gas Heater | 0.72 | 3.14 | 0.60 | 2.64 | 0.04 | 0.17 | 0.05 | 0.24 | <0.01 | 0.02 | <0.01 | <0.01 | 0.01 | 0.06 | 3753 |
| H-04 | TXP2 Regen Gas Heater | 0.72 | 3.14 | 0.60 | 2.64 | 0.04 | 0.17 | 0.05 | 0.24 | <0.01 | 0.02 | <0.01 | <0.01 | 0.01 | 0.06 | 3753 |
| H-05 | TXP2 Medium Heater | 2.31 | 10.10 | 1.94 | 8.49 | 0.13 | 0.56 | 0.18 | 0.77 | 0.02 | 0.06 | <0.01 | <0.01 | 0.04 | 0.19 | 12067 |
| H-06 | TXP2 Medium Heater | 2.31 | 10.10 | 1.94 | 8.49 | 0.13 | 0.56 | 0.18 | 0.77 | 0.02 | 0.06 | <0.01 | <0.01 | 0.04 | 0.19 | 12067 |
| FL-01 | Old Process Flare | 16.32 | 0.19 | 88.80 | 1.04 | 7.47 | 0.09 | 1.79 | 0.02 | 0.14 | <0.01 | - | - | 1.07 | 0.01 | 392 |
| FL-02 | New Process Flare | 36.85 | 2.56 | 200.51 | 13.94 | 127.79 | 8.88 | 4.04 | 0.28 | 0.32 | 0.02 | - | - | 21.30 | 1.48 | 5158 |
| TLO | Truck Loadout | - | - | - | - | NA | 1.96 | - | - | - | - | - | - | NA | 0.49 | - |
| T-03 | Produced Water Tank | - | - | - | - | 0.23 | 1.01 | - | - | - | - | - | - | 0.06 | 0.25 | - |
| T-04 | Produced Water Tank | - | - | - | - | 0.23 | 1.01 | - | - | - | - | - | - | 0.06 | 0.25 | - |
| **Total Point Source** | **Fort Beeler** | **74.23** | **91.15** | **332.98** | **86.06** | **148.40** | **77.93** | **7.37** | **6.96** | **0.56** | **0.45** | **1.07** | **4.54** | **24.79** | **13.57** | **118189** |
| Fugitive | Process Piping Fugitives | - | - | - | - | 13.39 | 58.67 | - | - | - | - | - | - | 0.45 | 1.99 | 1689 |
| **Total Fugitive** | **Fort Beeler** | **0.00** | **0.00** | **0.00** | **0.00** | **13.39** | **58.67** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.45** | **1.99** | **1689** |
| **Total Sitewide** | **Fort Beeler** | **74.23** | **91.15** | **332.98** | **86.06** | **161.79** | **136.60** | **7.37** | **6.96** | **0.56** | **0.45** | **1.07** | **4.54** | **25.24** | **15.56** | **119878** |
| **Groves Facility** | | | | | | | | | | | | | | | | |
| DH-01 | TEG Dehydrator Still Ve | - | - | - | - | 3.88 | 17.00 | - | - | - | - | - | - | 1.42 | 6.22 | 562 |
| BLR-01 | Dehydrator Reboiler | 0.02 | 0.10 | 0.02 | 0.08 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 114 |
| **Total Aggregated Source** | | **74.25** | **91.25** | **333.00** | **86.14** | **165.67** | **153.61** | **7.37** | **6.96** | **0.56** | **0.45** | **1.07** | **4.54** | **26.66** | **21.78** | **120553** |

REGULATORY APPLICABILITY

*Please reference the Engineering Evaluation/Fact Sheet for the co-located Fort Beeler Facility (R13-2826H) for all other applicable regulations.*

The following rules apply to the facility:

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

The purpose of 45CSR2 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 reboiler (BLR-01) is below 10 MMBTU/hr. Therefore, this unit is exempt from the aforementioned sections of 45CSR2.

Williams would also 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)

The purpose of 45CSR10 is to establish emission limitations for sulfur dioxide which are discharged from fuel burning units. 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 reboiler (BLR-01) is below 10 MMBTU/hr. Therefore, this unit is 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 Williams exceeds the regulatory emission threshold for criteria pollutants of 6 lb/hr and 10 ton/year on an uncontrolled basis.

Williams paid the appropriate application fee and published the required legal advertisement for a construction permit application.

**45CSR30** (Requirements for Operating Permits)

45CSR30 provides for the establishment of a comprehensive air quality permitting system consistent with the requirements of Title V of the Clean Air Act. The Groves Dehydration Station is considered the same 'source' as the Fort Beeler Facility. The Fort Beeler Facility meets the definition of a "major source under § 112 of the Clean Air Act" as outlined under §45-30-2.26 and clarified (fugitive policy) under 45CSR30b. Additionally, the facility has process heaters subject to a New Source Performance Standard (NSPS) - 40 CFR 60, Subpart Dc and cryogenic plants subject to 40 CFR 60, Subpart KKK- the facility is subject to Title V.

**40CFR63 Subpart HH** (National Emission Standards for Hazardous Air Pollutants for Oil and Natural Gas Production Facilities)

Subpart HH establishes national emission limitations and operating limitations for HAPs emitted from oil and natural gas production facilities located at major and area sources of HAP emissions. The glycol dehydration unit at the Groves Dehydration Station is subject to the area source requirements for glycol dehydration units. However, because the facility is an area source of HAP emissions and the actual average benzene emissions from the glycol dehydration unit is below 0.90 megagram per year (1.0 tons/year) it is exempt from all requirements of Subpart HH except to maintain records of actual average flowrate of natural gas to demonstrate a continuous exemption status.

The following rules do not apply to the facility:

**40CFR60 Subpart Dc** (Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units)

This rule applies to steam generating units with a heat input capacity of 100 MMBTU/hr or less, but greater than or equal to 10 MMBTU/hr for which construction commenced after June 9, 1989. Williams does not have an applicable unit, therefore, Williams would not be subject to this rule.

**40CFR60 Subpart Kb** (Standards of Performance for Volatile Organic Liquid Storage Vessels)

40CFR60 Subpart Kb does not apply to storage vessels with a capacity less than 75 cubic meters. The largest tank that Williams has proposed to install is 33.39 cubic meters each. Therefore, Williams would not be subject to this rule.

**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 ($SO_2$) 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:
Each gas well affected facility, which is a single natural gas well.

*There are no gas wells at this facility. Therefore, all requirements regarding gas well affected facilities under 40 CFR 60 Subpart OOOO would not apply.*

a. 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 Groves Dehydration Station. Therefore, all requirements regarding centrifugal compressors under 40 CFR 60 Subpart OOOO would not apply.*

b. 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 no reciprocating compressors at the Groves Dehydration Station. Therefore, all requirements regarding centrifugal compressors under 40 CFR 60 Subpart OOOO would not apply.*

c. 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.

*All pneumatic controllers at the facility are required to meet these standards.*

d. 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 non-earthen 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 Groves Dehydration Station have a potential to emit to less than 6 tpy of VOC. Therefore, Williams is not required by this section to further reduce VOC emissions by 95%.*

e. 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 Groves Dehydration Station is not a natural gas processing plant, however, the Fort Beeler Station is a natural gas processing plant. Therefore, Leak Detection and Repair (LDAR) requirements for onshore natural gas processing plants would apply. Due to the applicability dates, the Inlet and TXP3 processing train are subject to the LDAR requirements of this section. Processing trains TXP1 and TXP2 are subject to the LDAR requirements of 40CFR60 Subpart KKK.*

*Williams must meet the Leak Detection and Repair (LDAR) requirements of Subpart OOOO for the Inlet and processing train TXP3, which includes the provisions referenced in 40 CFR 60, Subpart VVa. Substantively, Subpart VVa defines a leak (and triggers repair procedures) when pollutant concentrations are detected in excess of 500 ppmv.*

f. 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 ($H_2S$) 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 Groves Dehydration Station. Therefore, all requirements regarding sweetening units under 40 CFR 60 Subpart OOOO would not apply.*

**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)

On September 30, 2013, EPA approved a redesignation request and State Implementation Plan (SIP) revision submitted by the State of West Virginia. The West Virginia Department of Environmental Protection (WVDEP) requested that the West Virginia portion of the Wheeling, WV–OH fine particulate matter ($PM_{2.5}$) nonattainment area (''Wheeling Area'' or ''Area'') be redesignated as attainment for the 1997 annual $PM_{2.5}$ national ambient air quality standard (NAAQS).

The Groves Dehydration Station is located in Marshall County, which is located in this metropolitan statistical area and is an attainment county for all pollutants. Therefore the Fort Beeler Facility is not subject to 45CSR19.

As shown in the following table, Williams 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.

| **Pollutant** | **PSD (45CSR14) Threshold (tpy)** | **NANSR (45CSR19) Threshold (tpy)** | **Groves + Fort Beeler PTE (tpy)** | **45CSR14 or 45CSR19 Review Required?** |
|---|---|---|---|---|
| Carbon Monoxide | 250 | NA | 86.14 | No |
| Nitrogen Oxides | 250 | 100 | 91.25 | No |
| Sulfur Dioxide | 250 | 100 | 0.45 | No |
| Particulate Matter 10 | 250 | NA | 6.96 | No |
| Ozone (VOC) | 250 | NA | 94.93 | No |

## 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. The following table lists each HAP's carcinogenic risk (as based on analysis provided in the Integrated Risk Information System (IRIS)):

| HAPs | Type | Known/Suspected Carcinogen | Classification |
|---|---|---|---|
| Formaldehyde | VOC | Yes | Category B1 - Probable Human Carcinogen |
| Benzene | VOC | Yes | Category A - Known Human Carcinogen |
| Ethylbenzene | VOC | No | Inadequate Data |
| Toluene | VOC | No | Inadequate Data |
| Xylenes | VOC | No | Inadequate Data |

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) or 45CSR19 (Permits for Construction and Major Modification of Major Stationary Sources of Air Pollution which Cause or Contribute to Nonattainment) as seen in the table listed in the Regulatory Discussion section under 45CSR14/45CSR19.

SOURCE AGGREGATION DETERMINATION

"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 Groves Dehydration Station will operate under SIC code 1321 (Natural Gas Liquid Extraction), while upstream Williams' facilities also operate under SIC Code 1321. Therefore, the facilities do belong to the same industrial grouping.

- Williams operates under their parent company, The Williams Companies, Inc. and is the sole operator of the Groves Dehydration Station. The production wells, including the TransEnergy Wellpad, that send natural gas to Fort Beeler are owned and operated by other companies. Williams has no ownership stake in any well that may send gas to Fort Beeler. Williams has no operational control over any equipment owned or operated by any natural gas producer upstream of Fort Beeler. All employees at Fort Beeler are under the exclusive direction of Williams and have no reporting authority to any other entity. In addition, no work forces are shared between the different companies. Contracts are in place for Fort Beeler to handle gas from the aforementioned wells. However, Fort Beeler will potentially receive gas from other producers in the future. Futuristically, Williams will not have ownership or control of future wellhead activities. The producers are and will be responsible for any decisions to produce or shut-in wellhead facilities and no control over the equipment installed, owned, and operated by Williams. Therefore, these facilities are not under common control.

- "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 Fort Beeler facility processes gas produced from multiple upstream production wells located in northern West Virginia and eastern Ohio. Fort Beeler is located on a parcel that is directly adjacent to a single upstream wellpad owned by TransEnergy and is located less than 0.5 mile from that wellpad. Other upstream production wells are located further from the facility. Operations separated by these distances do not meet the common sense notion of a plant. Therefore, the properties in question are not considered to be on contiguous or adjacent property. However, Williams' Groves Facility is co-located with the Fort Beeler facility and meets all three (3) prongs to be considered the same "Building, structure, facility, or installation". Therefore, the emissions from this facility have been aggregated with Fort Beeler in determining major source or PSD status.

MONITORING OF OPERATIONS

Williams will be required to perform the following monitoring and recordkeeping:

- Complete an extended gas analysis of the inlet gas once every twelve (12) months.
- 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 engine and ancillary equipment.
- Maintain records of all applicable requirements of 40CFR63 Subpart HH.
- The records shall be maintained on site or in a readily available off-site location maintained by Williams for a period of five (5) years.

RECOMMENDATION TO DIRECTOR

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

Jerry Williams, P.E.
Engineer

NOV 6, 2014
Date