

Fact Sheet



For Final Permitting Action Under 45CSR30 and Title V of the Clean Air Act

Permit Number: **R30-05100145-2019**
Application Received: **February 7, 2018**
Plant Identification Number: **03-54-051-00145**
Permittee: **Appalachia Midstream Services, LLC**
Facility Name: **Sand Hill Compressor Station**
Mailing Address: **100 Teletech Drive, Suite 2, Moundsville, WV 26041-2352**

Physical Location: Dallas, Marshall County, West Virginia
UTM Coordinates: 537.897 km Easting • 4,426.495 km Northing • Zone (17 or 18)
Directions: From Dallas, WV: Head south on Number 2 Ridge Road ~2.3 miles, then turn right onto Golden Rd/ McCausland Hill Rd ~1.4 miles, destination is on right.

Facility Description

The Appalachia Midstream Services, LLC, Sand Hill Compressor Station is covered by Standard Industrial Classification (SIC) 1389. The station has the potential to operate seven (7) days per week, twenty-four (24) hours per day, fifty-two (52) weeks per year. The facility compresses and dehydrates up to 165 MMscf of locally produced natural gas per day. The primary equipment includes: thirteen (13) natural gas compressors, and three (3) natural gas dehydrators, each with flash tank, regenerator/still and reboiler. The auxiliary equipment includes: two (2) electricity generators, two (2) heater treaters, and ten (10) storage tanks.

Emissions Summary

| Plantwide Emissions Summary [Tons per Year] | | |
|--|----------------------------|------------------------------|
| Regulated Pollutants | Potential Emissions | 2017 Actual Emissions |
| Carbon Monoxide (CO) | 106.52 | 15.82 |
| Nitrogen Oxides (NO _x) | 105.56 | 54.97 |
| Particulate Matter (PM _{2.5}) | 7.88 | 5.33 |
| Particulate Matter (PM ₁₀) | 7.88 | 5.33 |
| Total Particulate Matter (TSP) | 7.88 | 5.33 |
| Sulfur Dioxide (SO ₂) | 0.56 | 0.32 |
| Volatile Organic Compounds (VOC) | 202.86 | 115.17 |

PM₁₀ is a component of TSP.

| Hazardous Air Pollutants | Potential Emissions | 2017 Actual Emissions |
|---------------------------------|----------------------------|------------------------------|
| Acetaldehyde | 1.53 | 0.85 |
| Acrolein | 0.94 | 0.52 |
| Benzene | 1.16 | 0.12 |
| Butadiene, 1,3- | 0.05 | 0.03 |
| Ethylbenzene | 0.32 | 0.05 |
| Formaldehyde (HCHO) | 8.18 | 3.47 |
| n-Hexane | 6.04 | 2.81 |
| Methanol (MeOH) | 0.46 | 0.25 |
| Polycyclic Organic Matter (POM) | 0.07 | 0.04 |
| Toluene | 1.65 | 0.15 |
| 2,2,4-Trimethylpentane (TMP) | 0.34 | 0.11 |
| Xylenes | 0.81 | 0.10 |
| Other/Trace HAP | 0.06 | 0.03 |

Some of the above HAPs may be counted as PM or VOCs.

Title V Program Applicability Basis

This facility has the potential to emit 106.52 tpy of CO, 105.56 tpy of NO_x, and 202.86 tpy of VOCs. Due to this facility's potential to emit over 100 tons per year of criteria pollutant Appalachia Midstream Services, LLC's Sand Hill Compressor Station is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

Legal and Factual Basis for Permit Conditions

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

This facility has been found to be subject to the following applicable rules:

Federal and State:

| | |
|----------------------------------|--|
| 45CSR2 | To Prevent And Control Particulate Air Pollution From Combustion Of Fuel In Indirect Heat Exchangers |
| 45CSR6 | Control Of Air Pollution From Combustion Of Refuse. |
| 45CSR11 | Standby Plans For Emergency Episodes. |
| 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 |
| 45CSR16 | Standards Of Performance For New Stationary Sources |
| WV Code § 22-5-4 (a) (14) | The Secretary can request any pertinent information such as annual emission inventory reporting. |
| 45CSR30 | Operating permit requirement. |
| 45CSR34 | Emission Standards for Hazardous Air Pollutants |
| 40 C.F.R. Part 60, Subpart JJJJ | Standards of Performance for Stationary Spark Ignition Internal Combustion Engines |
| 40 C.F.R. Part 60, Subpart OOOO | Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution for which Construction, Modification or Reconstruction Commenced after August 23, 2011, and on or before September 18, 2015 |
| 40 C.F.R. Part 60, Subpart OOOOa | Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruction Commenced After September 18, 2015. |
| 40 C.F.R. Part 61 | Asbestos inspection and removal |
| 40 C.F.R. Part 63, Subpart HH | National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities |
| 40 C.F.R. Part 63, Subpart ZZZZ | National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines |
| 40 C.F.R. Part 82, Subpart F | Ozone depleting substances |

State Only:

| | |
|---------|--|
| 45CSR4 | No objectionable odors. |
| 45CSR17 | To Prevent And Control Particulate Matter Air Pollution from Materials Handling, Preparation, Storage And Other Sources Of Fugitive Particulate Matter |

Each State and Federally-enforceable condition of the Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR34 and 45CSR30.

Active Permits/Consent Orders

| Permit or Consent Order Number | Date of Issuance | Permit Determinations or Amendments That Affect the Permit (if any) |
|--------------------------------|-------------------|---|
| R13-2913C | November 27, 2018 | |

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table," which may be downloaded from DAQ's website.

Determinations and Justifications

Permit R13-2913B was issued on May 18, 2018. The previous permit, R13-2913A did not, but should have included compressor rod packing VOC potential emissions, emergency shutdown testing VOC potential emissions and engine crankcase VOC potential emissions. Also, the application for R13-2913B contained more conservative parameters and assumptions than the original application for estimating VOC potential emissions for the dehydrators, compressor blowdowns and the piping and equipment leak emissions. With the net increase in VOC potential emissions, the Sand Hill Compressor Station is a major source for a criteria pollutant and is required to have a Title V operating permit. The Title V application included R13-2913B requirements, however, R13-2913C was issued on November 27, 2018 and these requirements have been included in the Title V Permit.

The following are the state rule and federal regulation determinations and justifications:

1. 45CSR2 - To Prevent and Control Particulate Air Pollution from Combustion of Fuel in Indirect Heat Exchangers.

45CSR2 applies to fuel burning units, defined as equipment burning fuel "for the primary purpose of producing heat or power by indirect heat transfer". The reboilers, and heater treaters are fuel burning units each with a design heat input under 10 million BTU/hr. Section 11.1 states that any fuel burning unit(s) having a heat input under ten (10) million B.T.U's per hour will be exempt from sections 4, 5, 6, 8 and 9. The reboilers, and heater treaters are subject to the 10 percent opacity limits required by section 3.1 of this rule. Compliance with the visible emission requirements shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9 at the request of the Director.

2. 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

The applicable requirements of Permit R13-2913C have been incorporated into the Title V permit. The requirements that pertained to initial notifications, reporting and or testing have been satisfied and therefore not included in the Title V permit. Also, some conditions of R13-2913C have been determined not to be applicable requirements and therefore not included in the Title V permit. The following conditions of R13-2913C have not been included in the Title V permit: 6.1.1., 6.1.2., 6.3.1., 6.3.2., 6.4.1.b.1., 6.6.1.c., 7.1.2., 7.2.1., 7.3.2., 7.4.2.5., 7.4.3.4. and 8.1.1.

R13-2913C contains requirements from 40 CFR 60 Subpart OOOO in Section 7 for pneumatic controllers. All of the pneumatic controllers at the Sand Hill station are air driven and therefore not subject to Subpart OOOO. Hence, said requirements of Section 7 in R13-2913C have not been included in the Title V permit. (see Item 6.d. below)

Section 11 of R13-2913C contains the specific requirements for the storage tanks. The emission point identifications are shown as EPTK-1 – EPTK8, EPWTK-1 – EPWTK-2. EPWTK-1 and EPWTK-2 are misidentified and should be EPWTK-9 and EPWTK-10. The Title V permit (Section 9) uses the correct identifications of EPWTK-9 and EPWTK-10.

Also, throughout Section 11 of R13-2913C, the tanks are referred to as TK-1 -TK-8 and WTK-1 - WTK-2. To matches the ID s in the “Emission Units” tables of both the Title V permit and permit R13-2913C, the emission unit IDs in the Title V permit have been labeled as EUTK-1 – EUTK-8 and EUWTK-9 and EUWTK-10.

Condition 11.1.3. shows the “Maximum Annual Throughput” for storage tanks TK-1 - TK-8 as 1,2500,000 gal/yr. This is a typographical error and should be 1,250,000 gal/yr. This error has been corrected in condition 9.1.2. of the Title V permit.

3. 45CSR16 - Standard of Performance for New Stationary Sources

This rule establishes and adopts standards of performance for new stationary sources promulgated by the U.S. EPA pursuant to section 111(b) of the federal Clean Air Act, as amended.

The facility is subject to 40 CFR 60 Subpart JJJJ, Subpart OOOO, and Subpart OOOOa. See below.

4. 45CSR34 - Emission Standards for Hazardous Air Pollutants

This rule establishes and adopts a program of national emission standards for hazardous air pollutants and other regulatory requirements promulgated by the U.S. EPA pursuant to 40 CFR Part 61, 63 and section 112 of the federal Clean Air Act, as amended.

The facility is subject to 40 CFR 63 Subpart ZZZZ and Subpart HH. See below.

5. 40CFR60 Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary spark ignition (SI) internal combustion engines (ICE) as specified in paragraphs (a)(1) through (6) of 40 CFR §60.4230. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.

Engines EUCE-1 through EUCE-12 are Caterpillar G3516B Compressor Engines that are 4-stroke, lean burn, spark ignition RICE, manufactured after July 1, 2007. They are non-emergency engines rated at 1380 HP each and are fueled by natural gas. Engines EPCE-1 – EPCE-12 are equipped with oxidation catalysts which have control efficiencies of 85% for CO emissions, 90% for formaldehyde emissions, and 78.8% for VOC emissions. Engine EUCE-13 is a Caterpillar G3616 Compressor Engine that is a 4-stroke, lean burn, spark ignition RICE, manufactured after July 1, 2007. It is a non-emergency engine rated at 5000 HP and is fueled by natural gas. Engine EPCE-13 is equipped with an oxidation catalyst which has control efficiencies of 89% for CO emissions, 75% for formaldehyde emissions, and 79.4% for VOC emissions. The engines must meet the emissions limits of 40 CFR §60.4233(e). Each engine will demonstrate compliance with the emission standards set forth in this Subpart JJJJ with the installed catalyst.

Sand Hill Compressor Station will demonstrate compliance with this subpart for the non-certified engines in accordance with §60.4243(b)(2)(ii), which requires the facility to keep a maintenance

plan and records of conducted maintenance and to maintain and operate the engines in a manner consistent with good air pollution control practices for minimizing emissions. Additionally, Sand Hill Compressor Station has conducted the initial performance tests and is required to conduct subsequent compliance testing every 8,760 hours or three years, whichever comes first to demonstrate compliance with the emissions standards. Testing will be conducted in accordance with §60.4244.

The 49.2 hp emergency generator engine EUGEN-2 is an EPA certified emergency engine. Therefore, as long as this unit is operated in a certified manner, performance testing is not required.

Records of all notifications submitted to comply with this subpart, maintenance conducted on the engines, and performance testing will be maintained in accordance with §60.4245(a). Initial notifications have been submitted. Performance testing results will be reported as required in §60.4245(d).

6. 40CFR60 Subpart OOOO - Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution

40 CFR 60 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 and on or before September 18, 2015. The following affected sources which commenced construction, modification or reconstruction after August 23, 2011 and on or before September 18, 2015 are subject to the applicable provisions of this subpart:

- a. 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 do not apply.

- b. Centrifugal compressors located between the wellhead and the point of custody transfer to the natural gas transmission and storage segment.

There are no centrifugal compressors at the Sand Hill Compressor Station. Therefore, all requirements regarding centrifugal compressors under 40 CFR 60 Subpart OOOO do not apply.

- c. Reciprocating compressors located between the wellhead and the point of custody transfer to the natural gas transmission and storage segment.

There are reciprocating compressors (EUCE-1 – EUCE-12) located at the Sand Hill Compressor Station that were constructed after August 23, 2011 and on or before September 18, 2015. Therefore, the requirements regarding reciprocating compressors under 40 CFR 60 Subpart OOOO do apply. There are no cover and closed vent systems for the reciprocating compressors. The facility will be required to perform the following:

- Replace the reciprocating compressor rod packing at least every 26,000 hours of operation or 36 months.
- Submit the appropriate start up notifications.

- Maintain records of hours of operation since last rod packing replacement, records of the date and time of each rod packing replacement, and records of deviations in cases where the reciprocating compressor was not operated in compliance.

d. Pneumatic Controllers

- *There are pneumatic controllers located at the Sand Hill Compressor Station. However, they are all air driven with control air supplied by an electric air compressor located at the site. Since they are not gas driven pneumatic controllers, they are not affected facilities subject to the requirements regarding pneumatic controllers under 40 CFR 60 Subpart OOOO.*

- 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.

The storage vessels at the site are not subject to the requirements of this rule because they have the potential to emit less than 6 tpy of VOC from each tank. The storage vessels are controlled by a vapor recovery unit to reduce the VOC potential emissions below 6 tpy.

- 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 Sand Hill Compressor Station is not a natural gas processing plant. Therefore, Leak Detection and Repair (LDAR) requirements for onshore natural gas processing plants do not apply.

- g. Sweetening units located at onshore natural gas processing plants that process natural gas produced from either onshore or offshore wells.

The Sand Hill Compressor Station is not a natural gas processing plant nor are there any sweetening units at the Sand Hill Compressor Station. Therefore, all requirements regarding sweetening units under 40 CFR 60 Subpart OOOO do not apply.

7. 40CFR63 Subpart HH - National Emissions Standards for Hazardous Air Pollutants from Oil and Natural Gas Production Facilities

This subpart applies to the owners and operators of the emission points, specified in paragraph (b) of 40 CFR §63.760 that are located at oil and natural gas production facilities that meet the specified criteria in paragraphs 40 CFR §§63.760(a)(1) and either (a)(2) or (a)(3) of §63.760. The Sand Hill Compressor Station is subject to this subpart. However, because the facility is an area source of HAP emissions and the actual average emissions of benzene from each glycol dehydration unit process vent to the atmosphere is < 0.90 megagram per year (1.0 tpy), the dehydration units (EUDHY-1 – EUDHY-3) are exempt. The only requirement is to maintain records of the actual average benzene emissions per year as specified in 40 CFR §63.774(d)(1).

Since the facility is an area source of HAP emissions, pursuant to 40 CFR §63.760(b)(2), the affected source for this subpart includes each triethylene glycol (TEG) dehydration unit. Therefore, this rule does not apply to storage vessels (tanks), compressors, or ancillary equipment.

8. 40CFR60 Subpart OOOOa – *Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruction Commenced after September 18, 2015*

The following affected sources which commenced construction, modification or reconstruction after September 18, 2015 are subject to the applicable provisions of this Subpart OOOOa:

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

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

- b. Each centrifugal compressor affected facility, which is a single centrifugal compressor using wet seals 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 Sand Hill Compressor Station. Therefore, all requirements regarding centrifugal compressors under 40 CFR 60 Subpart OOOOa would not apply.

- c. Each reciprocating compressor affected facility, which is a single reciprocating compressor. 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 is one (1) reciprocating compressor located at the Sand Hill Compressor Station that was constructed after September 18, 2015. Therefore, the requirements regarding reciprocating compressors under 40 CFR 60 Subpart OOOOa will apply to EPCE-13. The facility will be required to perform the following:

- Replace the reciprocating compressor rod packing at least every 26,000 hours of operation or 36 months or installation of a rod packing emissions collection system.
- Demonstrate initial compliance by continuously monitoring the number of hours of operation or track the number of months since the last rod packing replacement.
- Submit the appropriate start up notifications.
- Submit the initial annual report for the reciprocating compressors.

- Maintain records of hours of operation since last rod packing replacement, records of the date and time of each rod packing replacement, and records of deviations in cases where the reciprocating compressor was not operated in compliance.

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 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 and is located at a natural gas processing plant.

All pneumatic controllers at the facility will be air driven. Therefore, there are no applicable pneumatic controllers which commenced construction after September 18, 2015. Therefore, all requirements regarding pneumatic controllers under 40 CFR 60 Subpart OOOOa would not apply.

- e. Each storage vessel affected facility, which is a single storage vessel, with the potential for VOC emissions equal to or greater than 6 tpy as determined according to §60.5364a(e).

40CFR60 Subpart OOOOa 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 §60.5420a(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 from the date 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.

The potential for VOC emissions must be calculated using a generally accepted model or calculation methodology, based on the maximum average daily throughput for a 30-day period of production prior to the applicable emission determination deadline specified in this subsection. The determination may take into account requirements under a legally and practically enforceable limit in an operating permit or other requirement established under a federal or state authority. 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 storage vessels located at the Sand Hill Compressor Station are controlled by a VRU which will reduce the potential to emit to less than 6 tpy of VOC. Therefore, the facility is not required by this section to further 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 §§60.5400a, 60.5401a, 60.5402a, 60.5421a and 60.5422a 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 §§60.5400a, 60.5401a, 60.5402a, 60.5421a and 60.5422a 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 Sand Hill Compressor 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 §60.5423a(c) but are not required to comply with §§60.5405a through 60.5407a and paragraphs 60.5410a(g) and 60.5415a(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 §§60.5405a through 60.5407a, 60.5410a(g), 60.5415a(g), and 60.5423a of this subpart.

There are no sweetening units at the Sand Hill Compressor Station. Therefore, all requirements regarding sweetening units under 40 CFR 60 Subpart OOOOa would not apply.

h. Pneumatic Pumps

The pneumatic pump requirements apply only to natural gas processing facilities and well sites. Therefore, all requirements regarding pneumatic pumps under 40 CFR 60 Subpart OOOOa would not apply to the Sand Hill Compressor Station.

i. Collection of fugitive emission components.

The collection of fugitive emissions components at a compressor station, as defined in §60.5430a, is an affected facility. For purposes of §60.5397a, a “modification” to a compressor station occurs when an additional compressor is installed at a compressor station. Therefore, the Sand Hill Compressor Station is subject to a modification under this subpart.

The rule requires quarterly leak monitoring at natural gas compressor stations. In addition to optical gas imaging (OGI), the rule allows owners/operators to use Method 21 with a repair threshold of 500 ppm as an alternative for finding and repairing leaks. Method 21 is an EPA method for determining VOC emissions from process equipment. The method utilizes a portable VOC monitoring instrument.

9. 40CFR63 Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

Subpart ZZZZ establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emitted from stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and operating limitations.

The twelve CAT G3516B compressor engines (EUCE-1 through EUCE-12), the G3616 LE A4 compressor engine (EUCE-13) and the Kohler emergency generator (EUGEN-2) at the Sand Hill Compressor Station are classified as new spark ignition engines located at an area source of HAP emissions. Pursuant to 40 CFR§63.6590(c)(1), the engines must meet the requirements of Subpart ZZZZ by meeting the requirements of 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for these engines under this Subpart.

Non-Applicability Determinations

The following requirements have been determined not to be applicable to the subject facility due to the following:

1. 45 CSR 10 - To Prevent and Control Air Pollution from the Emission of Sulfur Oxides.

This rule potentially applies to fuel burning units, including glycol dehydration unit reboilers and fuel gas heaters. Per 45CSR§10-10.1, units rated less than 10 MMBtu/hr are exempt from the SO₂ emission limitations and testing, monitoring, recordkeeping, and reporting requirements of this rule. The reboilers and heater treaters at the station are each rated less than 10 MMBtu/hr and as such are exempt from this rule.

2. 40 CFR 60 Subparts D, Da, Db, and Dc - Standards of Performance for Fossil-Fuel-Fired Steam Generators, Electric Utility Steam Generating Units; for Industrial-Commercial-Institutional Steam Generating Units; and for Small Industrial-Commercial-Institutional Steam Generating Units.

These subparts apply to steam generating units of various sizes, all greater than 10 MMBtu/hr. The station does not include any steam generating units with a heat input greater than 10 MMBtu/hr, therefore the requirements of these subparts do not apply.

3. 40 CFR 60 Subparts K, Ka, and Kb - Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978; for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984; and for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984.

These subparts apply to storage tanks of certain sizes constructed, reconstructed, or modified during various time periods. Subpart K applies to storage tanks constructed, reconstructed, or modified prior to 1978 with a storage capacity greater than 151,412 liters (40,000 gallons), Subpart Ka applies to those constructed, reconstructed, or modified prior to 1984 with a storage capacity greater than 151,412 liters (40,000 gallons), and Subpart Kb applies to volatile organic liquid (VOL) storage tanks constructed, reconstructed, or modified after July 23, 1984 with a capacity equal to or greater than 75m³ (19,813 gallons). There are no tanks at the station with a capacity equal to or greater than 75m³ (19,813 gallons). Therefore, Subparts K, Ka, and Kb do not apply to the storage tanks at the station.

4. 40 CFR 60 Subpart GG - *Standards of Performance for Stationary Gas Turbines.*

Pursuant to 40 CFR §60.330, this subpart is applicable to stationary gas turbines with a heat input at peak load equal to or greater than 10 MMBtu/hr, based on the lower heating value of the fuel fired, which commenced construction, modification, or reconstruction after October 3, 1977. The microturbine at the station has a heat input rating less than 10 MMBtu/hr. Therefore, this subpart is not applicable to the microturbine.

5. 40 CFR 60 Subpart IIII - *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*

This subpart applies to manufacturers, owners, and operators of stationary compression ignition internal combustion engines (CI ICE) that have been constructed, reconstructed, or modified after various dates, the earliest of which is July 11, 2005. The compressor engines at the Sand Hill Compressor Station are spark-ignition internal combustion engines. Therefore, the requirements of this subpart do not apply.

6. 40 CFR 60 Subpart KKKK - *Standards of Performance for Stationary Combustion Turbines.*

Pursuant to 40 CFR §60.4305, this subpart is applicable to stationary combustion turbines with a heat input at peak load equal to or greater than 10 MMBtu/hr, based on the lower heating value of the fuel, which commenced construction, modification, or reconstruction after February 18, 2005. The microturbine at the station has a heat input rating less than 10 MMBtu/hr. Therefore, this subpart is not applicable to the microturbine.

7. 40 CFR 63 Subpart HHH - *National Emission Standards for Hazardous Air Pollutants From Natural Gas Transmission and Storage Facilities*

The Sand Hill Station is not a major source of HAP emissions as defined in 40 CFR §63.1271 nor is it a natural gas transmission or storage facility that transports or stores natural gas prior to entering the pipeline to a local distribution company or to a final end user. Therefore, the requirements of this subpart do not apply to the station.

8. 40 CFR 63 Subpart YYYY - *National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines*

The Sand Hill Station is not a major source of HAP emissions as defined in 40 CFR §63.6085(b). Therefore, the requirements of this subpart do not apply to the station.

9. 40 CFR 63 Subpart DDDDD - *National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters*

The Sand Hill Station is not a major source of HAP emissions as defined in 40 CFR §63.7575. Therefore, the requirements of this subpart do not apply to the station.

10. 40 CFR 63 Subpart JJJJJ - *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources*

Since the reboilers and heater treaters are gas fired, they are not subject to this subpart pursuant to 40 CFR §63.11195(e).

11. 40 CFR Part 64 – *Compliance Assurance Monitoring (CAM)*

There are no “*large pollutant-specific emissions units*” at the Sand Hill Compressor Station. Since this is the initial Title V permit for the facility, CAM is not required to be addressed. Pursuant to §64.5(b), for all “*other pollutant-specific emissions units*” (i.e., units with post-control potential emissions less than the major threshold), the owner or operator shall submit the information required under §64.4 as part of an application for a renewal of the Title V permit. Therefore, CAM for the Sand Hill Station will be addressed accordingly during the facility's first Title V Operating Permit Renewal.

Request for Variances or Alternatives

None.

Insignificant Activities

Insignificant emission unit(s) and activities are identified in the Title V application.

Comment Period

Beginning Date: Friday, December 14, 2018
Ending Date: Monday, January 14, 2019

Point of Contact

All written comments should be addressed to the following individual and office:

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Division of Air Quality
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Procedure for Requesting Public Hearing

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

Response to Comments (Statement of Basis)

Not applicable.