

Fact Sheet



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

Permit Number: **R30-03300013-2017**
Application Received: **February 18, 2016**
Plant Identification Number: **03-054-033-00013**
Permittee: **Dominion Transmission, Inc.**
Facility Name: **Sardis Compressor Station**
Mailing Address: **925 White Oaks Blvd., Bridgeport, WV 26330**

Revised: N/A

Physical Location:	Sardis, Harrison County, West Virginia
UTM Coordinates:	552.89 km Easting • 4355.61 km Northing • Zone 17
Directions:	Interstate 79 North to the Clarksburg exit. Turn left off the exit ramp, then go thru Clarksburg on Route 50. Off of Route 50, turn onto Route 9 (Gregory Run Road). Travel for 5 miles, and then turn right at DTI sign. Go approximately 0.5 miles to station.

Facility Description

Sardis Compressor Station is a natural gas facility covered by Standard Industrial Classification (SIC) Code 4922 and North American Industry Classification System (NAICS) Code 486210. The Sardis Station consists of one (1) 1000 HP natural gas fired reciprocating engine (EN01), one (1) 800 HP natural gas fired reciprocating engine (EN02), one (1) 750 HP natural gas fired reciprocating engine (EN03), two (2) 192.5 HP emergency generators (EG01 and EG02), one (1) glycol dehydrator system (DEHY02), one (1) dehydration unit reboiler (RBR02), one (1) 4 MMBtu/hr dehydration unit still flare (FL03), two (2) 2,730-gallon aboveground storage tanks (TK01 and TK02), one (1) 2,500-gallon aboveground storage tank (TK03), one (1) 230-gallon aboveground storage tank (TK04), one (1) 5,000-gallon aboveground storage tank (TK05), one (1) 500-gallon aboveground storage tank (TK06), one (1) 500-gallon aboveground storage tank (TK07), and one (1) 1,000-gallon aboveground storage tank (TK08). The station has the potential to operate seven (7) days per week, twenty-four (24) hours per day.

The Sardis Compressor Station is a production facility that compresses production gas to Hastings Extraction Plant.

Emissions Summary

Plantwide Emissions Summary [Tons per Year]		
Regulated Pollutants	Potential Emissions	2015 Actual Emissions ⁽¹⁾
Carbon Monoxide (CO)	33.69	27.18
Nitrogen Oxides (NO _x)	435.39	199.8
Particulate Matter (PM _{2.5})	3.39	0.17256
Particulate Matter (PM ₁₀)	3.39	0.456438
Total Particulate Matter (TSP)	4.27	0.891 ⁽²⁾
Sulfur Dioxide (SO ₂)	0.05	0.0286
Volatile Organic Compounds (VOC)	173.88	100.086
Hazardous Air Pollutants	Potential Emissions	2015 Actual Emissions ⁽¹⁾
Acetaldehyde	0.68	0.2974
Acrolein	0.58	0.2982
Benzene	0.64	0.2736
Ethylbenzene	0.31	0.1165
Formaldehyde	4.62	2.116
Hexane	0.69	0.4184
Toluene	0.96	0.3909
Xylenes (mixed isomers)	2.28	0.0839
Aggregate HAPs	10.76	3.995

⁽¹⁾ With the exception of Carbon Monoxide (CO), the 2015 Actual Emissions are from the 2015 SLEIS Emissions Report. The SLEIS CO value is 34.6 tons. However, according to technical correspondence received from the permittee on October 21, 2016, the PTE is correct and it appears that the catalyst control efficiency was not included in the actual emissions. The actual emissions for EN01 for 2015 are 0.56 tpy (not 7.98 tpy). Therefore, the difference of 7.42 tpy has been subtracted from the SLEIS value of 34.6 tpy to arrive at the actual emissions given above for CO.

⁽²⁾ The TSP actual emissions value is the sum of the condensable and filterable particulate values in the 2015 SLEIS Emissions Report.

Title V Program Applicability Basis

This facility has the potential to emit 435.39 tpy of Nitrogen Oxides and 173.88 tpy of Volatile Organic Compounds. Due to this facility's potential to emit over 100 tons per year of criteria pollutant, Dominion Transmission Incorporated's Sardis 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 45CSR6 45CSR10 45CSR11 45CSR13 45CSR16 WV Code § 22-5-4 (a) (14) 45CSR30 45CSR34 40 C.F.R. 60 Subpart JJJJ 40 C.F.R. 60 Subpart OOOO 40 C.F.R. Part 61 40 C.F.R. 63 Subpart HH 40 C.F.R. 63 Subpart ZZZZ 40 C.F.R. Part 82, Subpart F	Control of Emissions of PM from Fuel Burning Units Open burning prohibited. Control of Emissions of Sulfur Oxides Standby plans for emergency episodes. Permits for construction/modification New Source Performance Standards The Secretary can request any pertinent information such as annual emission inventory reporting. Operating permit requirement. Emission Standards for HAPs NSPS for Spark-ignition RICE NSPS for Crude Oil and Natural Gas Production, Transmission and Distribution after August 23, 2011 and before September 18, 2015 Asbestos inspection and removal NESHAPs-MACT for Oil and Natural Gas Production Facilities NESHAPs-MACT for RICE Ozone depleting substances
State Only:	45CSR4 45CSR17	No objectionable odors. Control 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 (<i>if any</i>)
G60-C026	January 4, 2011	
R13-2915A	May 8, 2015	

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

The following sections discuss changes relevant to this operating permit renewal, and are not a complete list of applicable regulations and rules; these are listed above in the Legal and Factual Basis. Unless otherwise noted, the terminology *current permit* means Title V Operating Permit R30-03300013-2011 (MM01), issued by the Director on October 5, 2015.

1. **Class II General Permit Registration No. G60-C026 and General Permit G60-C.** This general permit registration and general permit were included in the current Title V permit when the 2011 renewal was issued. However, the permittee requested in the renewal application that the applicable requirements in the general permit be clearly specified instead of just attaching the general permit to the operating permit. The permittee noted that this will improve clarity and compliance. This writer agrees and an applicability analysis is provided in the tables below to demonstrate which G60-C requirements are applicable to the emergency generators EG01 and EG02. Requirements that are applicable are noted in bold font.

G60-C Section 5 Applicability Analysis

G60-C Condition	Discussion
5.1.1.	This requirement to operate EG01 and EG02 in accordance with the manufacturer’s recommendations and specifications and in a manner consistent with good operating practices is applicable; therefore, it is listed in condition 6.1.2.
5.1.2.	This requirement for EG01 and EG02 to meet the specific emission limitations in the registration is applicable; therefore, it is cited in condition 6.1.1. and listed in condition 6.1.2.
5.1.3.	<p>This G60-C condition states, “The maximum fuel consumption for any registered reciprocating internal combustion engine listed in the General Permit Registration application shall not exceed the fuel consumption recorded with registrant’s Class II General Permit Registration Application without effecting a modification or administrative update.”</p> <p>The Emergency Generator Data Sheet in the application for G60-C026 records a fuel consumption for each engine of 0.834 MMft³/yr. The G60-C condition specifies that the fuel consumption recorded in the “application” cannot be exceeded without effecting a modification of administrative update. Therefore, the fuel consumption of 0.834 MMscf/yr has been provided in the maximum fuel consumption limitation in permit condition 6.1.3.</p>
5.1.4.	<p>This condition is for catalytic reduction devices. 5.1.4.a. and 5.1.4.b. are not applicable because engines EG01 and EG02 are not natural gas compressor engines.</p> <p>5.1.4.c. is applicable because EG01 and EG02 are equipped with electronic air/fuel ratio control as specified in the application¹ for G60-C026.</p> <p>5.1.4.d. is applicable. However, the permit mistakenly refers to general permit G35-A. This reference should be to G60-C.</p>
5.2.1.	This requirement is applicable since a catalytic control device is utilized for EG01 and EG02.

¹ Refer to the Engine Information section in the Cummins Power Generation Exhaust Emission Data Sheet, 125GGLA, 60 Hz Spark Ignited Generator Set, EPA Emissions.

G60-C Condition	Discussion
5.3.1.	This G60-C condition refers to Section 3.4 of G60-C which is applicable; therefore, 5.3.1. is applicable. Condition 5.3.1. of G60-C refers to its section 3.4., which is essentially Title V condition 3.3.1. Therefore, Title V condition 6.3.1. refers to condition 3.3.1.
5.4.1.	This G60-C requirement is utilized to demonstrate compliance with emission limits and operating limits. Conditions 6.4.1. and 6.4.2. are written to (i) specify the records necessary to demonstrate compliance with the requirements of condition 6.1.1.; and (ii) to specify that annual emission limits and annual operating hours are demonstrated on a 12-month rolling total, which is why 45CSR§30-5.1.c. is cited.
5.5.1.	This G60-C condition refers to Section 3.6 of G60-C which is applicable; therefore, 5.5.1. is applicable.

G60-C Section 8 Applicability Analysis

G60-C Condition	Discussion
8.1.1.	EG01 and EG02 are characterized by the criteria in 8.1.1.a.4.; therefore, this G60-C condition is applicable.
8.1.2.	EG01 and EG02 are not stationary SI ICE being tested at an engine test cell/stand; therefore, this G60-C condition is not applicable.
8.1.3.	The source is an area source of HAP. However, it is required to obtain a Title V permit since it is a major source of NO _x and VOC; therefore, this G60-C condition is not applicable.
8.1.4.	EG01 and EG02 are not combusting alcohol-based fuel; therefore, this G60-C condition is not applicable.
8.1.5.	EG01 and EG02 are not eligible for exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C (or the exemptions described in 40 CFR parts 90 and 1048, for engines that would need to be certified to standards in those parts); therefore, this G60-C condition is not applicable.
8.1.6.	EG01 and EG02 are not acting as temporary replacement units and will be located at a stationary source for greater than 1 year; therefore, this G60-C condition is not applicable.
8.2.1.	EG01 and EG02 have a maximum engine power greater than 19 kW (25 hp); therefore, this G60-C condition is not applicable.
8.2.2.	EG01 and EG02 do not combust gasoline; therefore, this G60-C condition is not applicable.
8.2.3.	EG01 and EG02 do not combust LPG; therefore, this G60-C condition is not applicable.
8.2.4.	EG01 and EG02 are rated greater than 100-hp; therefore, this G60-C condition is not applicable.
8.2.5.	EG01 and EG02 are rated greater than 100-hp and do not combust gasoline and are not rich burn engines that combust LPG; therefore, this requirement is applicable. The requirement is to comply with Table 1 to 40 C.F.R. 60 Subpart JJJJ. The Table 1 requirements are streamlined by the more stringent limitations in the G60-C026 general permit registration set forth in permit condition 6.1.1. Therefore, a streamlining note regarding this has been added to the condition and this G60-C requirement added to the citation of authority.
8.2.6.	EG01 and EG02 are not modified or reconstructed SI ICE; therefore, this G60-C condition is not applicable.
8.2.7.	EG01 and EG02 are not stationary SI wellhead gas ICE; therefore, this G60-C condition is not applicable.

G60-C Condition	Discussion
8.2.8.	This requirement is not applicable because the engine is Subpart JJJJ certified and thus field testing according to the standards in this condition is not applicable.
8.2.9.	EG01 and EG02 are subject to an emission standard in §60.4233; therefore, this applicable G60-C condition is listed in Title V permit condition 6.1.2.
8.3.1.	EG01 and EG02 do not combust gasoline; therefore, this G60-C condition is not applicable.
8.3.2.	EG01 and EG02 are certified to meet the requirements in §60.4233; therefore, this G60-C condition is not directly applicable to them. However, it still remains applicable to the permittee if an affected engine is installed in the future. Yet, at this time, the condition does not require the permittee to do anything. Therefore, this applicable G60-C condition is not listed in Title V permit condition 6.1.2.
8.3.3.	This condition is applicable to the permittee if an affected engine is installed in the future. Yet, at this time, the condition does not require the permittee to do anything. Therefore, this applicable G60-C condition is not listed in Title V permit condition 6.1.2.
8.3.4.	EG01 and EG02 meet the criteria of this G60-C condition, and the permittee must meet this requirement. Therefore, this applicable G60-C condition is listed in Title V permit condition 6.1.2.
8.3.5.	This condition is applicable to the permittee if an affected engine is installed in the future. Yet, at this time, the condition does not require the permittee to do anything. Therefore, this applicable G60-C condition is not listed in Title V permit condition 6.1.2.
8.3.6.	EG01 and EG02 have not been modified or reconstructed; therefore, the exemption in this G60-C condition is not applicable.
8.3.7.	EG01 and EG02 are rated less than 500 hp; therefore, this G60-C condition is not applicable.
8.3.8.	EG01 and EG02 are each rated at 192.5-bhp; were installed in 2011; and do not meet the standards applicable to non-emergency engines. Therefore, this applicable G60-C condition is listed in Title V permit condition 6.1.2.
8.3.9.	EG01 and EG02 are each greater than 130-hp; therefore, this requirement is not applicable.
8.4.1.	EG01 and EG02 are not required to meet the emission standards specified in §§60.4233(a) through (c); therefore, this requirement is not applicable.
8.4.2.	EG01 and EG02 are required to meet the emission standards specified in §60.4233(e); therefore, this requirement is applicable.
8.4.3.	EG01 and EG02 are not required to meet standards in §60.4233(f); therefore, this G60-C condition is not applicable.
8.4.4.	EG01 and EG02 are emergency engines meeting the criteria of this G60-C condition; therefore, this applicable G60-C condition is listed in Title V permit condition 6.1.2.
8.4.5.	Since EG01 and EG02 are natural gas-fired, then this alternative to combust propane under the requirements of the condition is applicable; therefore, this applicable G60-C condition is listed in Title V permit condition 6.1.2.
8.4.6.	EG01 and EG02 are certified engines. This performance testing requirement is applicable if the permittee does not operate and maintain its certified stationary SI internal combustion engine and control device according to the manufacturer's written emission-related instructions. Therefore, this G60-C condition is applicable.

G60-C Condition	Discussion
8.4.7.	According to the application ² for G60-C026, engines EG01 and EG02 are equipped with electronic air/fuel ratio control, 3-way catalyst, and closed-loop breather system; therefore, this applicable G60-C condition is listed in Title V permit condition 6.1.2.
8.4.8.	EG01 and EG02 are rated less than 500 hp; therefore, this G60-C condition is not applicable.
8.5.1.	If the permittee is required to conduct performance testing for the reason discussed above concerning requirement 8.4.6., then this requirement pertaining to performance testing is applicable to EG01 and EG02. For this reason, the requirement 8.5.1. is applicable.
8.6.1.	Portions of this condition are applicable to EG01 and EG02. <ul style="list-style-type: none"> • Condition 8.6.1.a. is applicable in its entirety. • The second and the last statements in condition 8.6.1.b. are applicable. • Condition 8.6.1.c. is not applicable since the engines are less than 500 hp. • Condition 8.6.1.d. is applicable since the engines are subject to Subpart JJJJ performance testing for the reason discussed above concerning requirement 8.4.6.

Since condition 6.1.2. sets forth the requirement to comply with NSPS Subpart JJJJ, and it is the means of complying with MACT Subpart ZZZZ, 40 C.F.R. §§63.6590(c) and (c)(1) are cited in condition 6.1.2. and an italicized streamlining note is added for clarity in the permit condition.

General Permit G60-C is retained in the operating permit as an Appendix since it contains the applicable requirements for the underlying general permit registration that have been more thoroughly incorporated into Section 6 of the Title V permit.

The engines EG01 and EG02 are not subject to 40 C.F.R. Part 64 since pre-control device emissions are less than the major source threshold for each controlled pollutant (§64.2(a)(3)).

Summary of Changes

The following changes have been made in permit section 6.0 with regards to the general permit:

- a. The following changes have been made in permit condition 6.1.1.:
 - i. The current permit condition indicates that the emission standards in Table 1 of Subpart JJJJ are in §60.4248. However, Table 1 only follows §60.4248 in the regulation. Table 1 is not part of §60.4248. Table 1 is referenced by applicable requirements in §60.4233(e). These facts have been clarified in the streamlining note and citation of authority.
 - ii. The citation of authority for condition 6.1.1. has been revised to include the NSPS requirement currently in the streamlining note. It has also been revised to clarify that the specific limits are from the registration, while the general permit requirement is 5.1.2. The table footnote language regarding the 500 hr/yr operating limit has been added and the requirement 2.3.1.c. of G60-C added to the citation of authority.

² Refer to the Engine Information section in the Cummins Power Generation Exhaust Emission Data Sheet, 125GGLA, 60 Hz Spark Ignited Generator Set, EPA Emissions.

- iii. Requirement 8.2.5. of G60-C has been added to the citation of authority because it requires compliance with Table 1 to 40 C.F.R. 60 Subpart JJJJ.
 - b. Condition 6.1.2. has been added to the permit to reflect the content of the registration and to specify which requirements in the general permit are applicable. In addition, this requirement contains a note to clarify that compliance with NSPS Subpart JJJJ is the means of compliance with the applicable regulation 40 C.F.R. 63 Subpart ZZZZ as provided in 40 C.F.R. §§63.6590(c) and (c)(1). This determination was made in the 2011 renewal Fact Sheet discussion of Subpart ZZZZ, but the applicable Subpart ZZZZ requirement in §63.6590(c) was not cited in the operating permit renewed in 2011.
 - c. Condition 6.1.3. has been added to the permit to specify the maximum fuel consumption limit for each engine.
 - d. Conditions 6.4.1. and 6.4.2. have been written to replace the less specific current permit condition 6.4.1. that only referred to condition 5.4.1. of G60-C.
2. **40 C.F.R. 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.** This regulation applies to the reciprocating compressor associated with engine EN03 according to section 19 of the renewal application general forms. With the November 1, 2016 technical correspondence the permittee provided an updated Attachment E for EN03 in order to specify the requirements in Subpart OOOO that are applicable to the compressor. Table OOOO lists the regulation requirements that are applicable to the compressor associated with EN03 and describes where and how the requirements have been incorporated into the renewal operating permit.

Table OOOO

Subpart OOOO	Title V	Discussion
§60.5385(a)	7.1.22.	This section specifies the applicable standard to replace the reciprocating compressor rod packing (1) before the compressor has operated for 26,000 hours; or (2) prior to 36 months from the date of startup or the most recent rod packing replacement. §60.5385(a)(3) has been excluded from the permit condition since the permittee did not include it in the Attachment E for the source, thereby implying that it has elected to comply with §§60.5385(a)(1) and (2).
§60.5385(b)	None	This section requires demonstration of <i>initial</i> compliance with the applicable standard as required by §60.5410. Since the initial compliance demonstration has been completed, no permit condition is warranted for initial compliance requirements.
§60.5385(c)	7.1.23.	This section requires demonstration of continuous compliance with the applicable standard as required by §60.5415. Therefore, all applicable requirements from §60.5415 incorporated into the renewal operating permit will also include §60.5385(c) in the citation of authority.
§60.5385(d)	7.4.7. 7.5.10.	This section requires the permittee to perform the required notification, recordkeeping, and reporting as required by §60.5420. Therefore, all applicable requirements from §60.5420 incorporated into the renewal operating permit will also include §60.5385(d) in the citation of authority.

Subpart OOOO	Title V	Discussion
§60.5410(c)	None	This section specifies requirements for demonstrating <i>initial</i> compliance with the applicable standard. Since the initial compliance demonstration has been completed, no permit condition is warranted for initial compliance requirements.
§60.5415(c)	7.1.23.	This section specifies requirements for demonstrating <i>continuous</i> compliance with the applicable standard. <ul style="list-style-type: none"> • §60.5415(c)(1) requires the permittee to monitor the number of hours of operation or track the number of months since the last rod packing replacement. • §60.5415(c)(2) requires the permittee to submit the annual report as required in §60.5420(b) and maintain records as required in §60.5420(c)(3). Parenthetical references to the respective condition numbers for the reporting and recordkeeping have been added to permit condition 7.1.23.(2). • §60.5415(c)(3) requires the permittee to replace the reciprocating compressor rod packing before the total number of hours of operation reaches 26,000 hours or the number of months since the most recent rod packing replacement reaches 36 months.
§60.5420(b)	7.5.10.	In this reporting requirements section, only §§60.5420(b)(1) and (4) are applicable. The regulation language regarding owning or operating more than one affected facility has been excluded since the permittee operates only one affected facility. Other regulation language has been edited to tailor the permit condition to the affected facility.
§60.5420(c)	7.4.7.	In this recordkeeping requirements section, only §§60.5420(c) and (c)(3) are applicable.

Other Subpart OOOO requirements are not applicable for one or more of the following reasons:

- The requirement applies to an affected facility type not owned or operated at the site.
- The requirement applies to a control device or system not utilized at the site.
- The affected facility is not subject to pollutant emission limits pursuant to 40 C.F.R. 60 Subpart OOOO.

3. **40 C.F.R. 63 Subpart HH – National Emissions Standards for Hazardous Air Pollutants from Oil and Natural Gas Production Facilities.** The applicable requirements of this regulation have already been incorporated into the operating permit. However, several additions have been made to permit pertaining to Subpart HH requirements, which are discussed below:

- a. 45CSR34 was added to the citation of authority in permit condition 5.1.5.
- b. The exemption in §63.764(e)(1)(ii) has been added to permit condition 5.1.8. 45CSR34 also has been added to the citation of authority.
- c. The requirements of §63.772(b)(2)(i) have been added to the permit as condition 5.3.5.
- d. The requirements of §63.774(d)(1)(ii) have been added to the permit as condition 5.4.10.

4. **40 C.F.R. 63 Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.** The applicable requirements of this regulation have already been incorporated into the operating permit. However, several changes have been made to permit conditions that contain Subpart ZZZZ requirements, which are discussed below:
- a. The requirements in NSR permit R13-2915 and 40 C.F.R. 60 Subpart JJJJ for compressor engine EN03 were incorporated into the current operating permit in significant modification SM01, issued on November 14, 2012. The Fact Sheet for that modification stated that this new stationary source must meet the requirements of 40 C.F.R. Part 63 Subpart ZZZZ by meeting the requirements of 40 C.F.R. Part 60 Subpart JJJJ, per 40 C.F.R. §63.6590(c)(1), and no further requirements apply to EN03 under 40 C.F.R. Part 63 Subpart ZZZZ. Since Subpart JJJJ is the prescribed means of complying with Subpart ZZZZ, then the appropriate MACT citation of authority must be included with each NSPS JJJJ permit condition that applies to EN03. Therefore, italicized streamlining language and citation of authority language “40 C.F.R. §§ 63.6590(c) and (c)(1), 45CSR34” has been added to the following permit conditions: 7.1.11. through 7.1.21., 7.3.4., and 7.4.6.
 - b. In renewal permit condition 7.1.1., the center column has been added to reflect the table in the regulation. Also in this condition the footnote reference to §63.6625(i) has been corrected to be §63.6625(j) since engines EN01 and EN02 are spark ignition engines rather than compression ignition. The applicable items #6 for EN02 and #9 for EN01 have been added to the citation of authority.
 - c. In condition 7.1.2.a., the language has been updated to reflect the regulation.
 - d. In condition 7.1.3. the requirement in sub-condition 7.1.3.(c) from §63.6630(c) to submit the NOCS has been deleted and the citation of authority revised accordingly because (according to technical correspondence³) the permittee has already submitted the NOCS and there is no ongoing NOCS submittal requirement. Additionally, the citation of Table 5 has been made more specific by stating that it is from 40 C.F.R. 63 Subpart ZZZZ.
 - e. In condition 7.1.7. the citation of Table 6 has been made more specific by stating that it is from 40 C.F.R. 63 Subpart ZZZZ. Also, the item number has been changed from 11 to 14 for the first row requirements.
 - f. In condition 7.1.14. the citation of Table 1 has been made more specific by stating that it is from 40 C.F.R. 60 Subpart JJJJ.
 - g. Current permit condition 7.4.3. states that the permittee must keep records required in Table 6 to Subpart ZZZZ without specifying the records that are applicable. However, all applicable Table 6 requirements are already contained in permit condition 7.1.7.a. Therefore, an italicized note has been added to condition 7.4.3. that points to condition 7.1.7.a.
 - h. Current permit condition 7.5.1. states that the permittee must submit each report in Table 7 to Subpart ZZZZ that is applicable. This condition has been improved by specifying the content of item #3 in Table 7 to Subpart ZZZZ which applies to EN01. Since EN02 is a non-emergency, non-black start, 2SLB stationary RICE rated at 800-hp, it meets none of the criteria in Table 7 and therefore no requirements in Table 7 are applicable to it.

³ E-mail dated November 1, 2016, from Rebekah J. Remick of Dominion Resources, Inc.

- i. Current permit condition 7.5.2. includes requirements for annual compliance reports, which in this case are not applicable. As discussed above, the applicable item #3 in Table 7 to Subpart ZZZZ specifies semi-annual reports for EN01; therefore, requirements from §§63.6650(b)(6) through (9) have been deleted for the renewal permit condition. In keeping with this change, the condition's introductory paragraph and citation of authority have been revised to indicate that the applicable requirements are §§63.6650(b)(1) through (b)(5).
 - j. Current permit condition 7.5.9. has been deleted in its entirety because the permittee has already submitted the NOCS and there is no ongoing NOCS submittal requirement. The subsequent current permit condition number 7.5.10. containing requirements from §63.6640(e) has been renumbered as renewal permit condition 7.5.9.
5. **Removal of 40 C.F.R. Part 64 Compliance Assurance Monitoring (CAM) Language.**

The previous permit for this facility included CAM language for the Dehydration Unit (DEHY02) and the associated Flare Control Device (FL03) in conditions 5.2.5., 5.2.7. though 5.2.12, 5.4.2, 5.4.3., and 5.5.2.

The dehydration unit (DEHY02) is a potential PSEU for VOC and HAP emissions because it meets the applicability criteria in 40 C.F.R. §64.2(a):

- (1) DEHY02 has emission limits for VOCs (condition 5.1.10);
- (2) DEHY02 uses a control device (Flare FL03) to achieve compliance with these limits; and
- (3) DEHY02 pre-control device emissions of VOC are higher than the major source threshold.

However, the DEHY02 meets the exemption in 40 C.F.R. §64.2(b)(1)(i) for HAP emissions, since the facility is subject to 40 C.F.R. 63 Subpart HH; therefore, CAM is not applicable to DEHY02 for HAPs.

For the VOC emissions of the DEHY02, it was determined during the review of the significant modification SM01 of R30-03300013-2011 that the DEHY02 did not meet any exemption in 40 C.F.R. §64.2(b), and met the applicability criteria in 40 C.F.R. §64.2(a), and therefore it was subject to CAM. The CAM plan was included with the significant permit modification at that time (issued on November 14, 2012).

Per the company's request, the CAM applicability for the DEHY02 for VOC emissions was reconsidered during this permit renewal process. On April 30, 2012, underlying permit R13-2915 was issued to the permittee for (among other things) the replacement of the NATCO glycol dehydration unit (DEHY01) with a new Cameron glycol dehydration unit (DEHY02), the emissions from which were to be routed to a 4 MMBtu/hr flare (FL02) for volatile organic compound, hazardous air pollutant, and odor control. This underlying permit was incorporated into the Title V permit R30-03300013-2011 as part of significant modification SM01 issued on November 14, 2012. The Fact Sheet for permitting action SM01 states that DEHY02 is a pollutant-specific emissions unit (PSEU) for the pollutant VOC. A CAM plan was submitted by the permittee and was summarized in a table in the significant modification Fact Sheet and the applicable requirements in 40 C.F.R. Part 64 were incorporated into the Title V permit as part of SM01.

However, it was found that per 40 C.F.R. §64.5(b), the CAM applicability determination should have been conducted during this permit renewal process in 2017, and not during the significant modification process (SM01) in 2012 since, per 40 C.F.R. §64.5(a), the DEHY02 was not considered a large PSEU for VOC (VOC emissions after control device were limited to 30.00 TPY in R13-2915, 7.1.2.). Furthermore, if the CAM applicability determination had been conducted during the permit renewal in 2017, it would have been determined that CAM was not applicable to the DEHY02 for VOC because it was exempted per 40 C.F.R. §64.2(b)(1)(vi) since

the Title V permit already specified “a continuous compliance determination method” (condition 5.2.5, underlying R13-2915, requirement 7.2.1) included in the permit during SM01 (issued on November 14, 2012).

Therefore, based on the information above, the DEHY02 was found not to be subject to CAM for VOC, and all the requirements of the CAM plan were removed from current permit conditions 5.2.5., 5.2.7. though 5.2.12, 5.4.2, 5.4.3., and 5.5.2.

6. Emission Units Table Changes

- a. The description of engine EN03 has been changed from “SI LB” to “2SLB”. The Engineering Evaluation for R13-2915 confirms this.
- b. More information regarding engines EG01 and EG02 have been added to the emission unit description. In particular, the manufacturer’s name and model number for the engine, and the cycle and combustion characteristics have been included.
- c. In the emission units table the design capacity of tank TK07 has been corrected by changing it from 520 gallons to 500 gallons as specified by the permittee in the renewal application.
- d. The new tank TK08 for storing used engine oil has been added to the emission units table in permit subsection 1.1. No permit determination was submitted for this tank since it meets the criteria in 45CSR13, Table 45-13B, Item 58. The permittee did not submit an Off-Permit Change under 45CSR§30-5.9 during the term stating that WVDEP has in the past instructed the permittee for small tanks such as this to just include them in the next Title V renewal.
- e. Two rows in the control device portion of the table in section 1.1. have been added for NSCR1 and NSCR2.

7. Changes based upon Permittee Comments. The permittee reviewed the pre-draft permit and submitted comments requesting changes in its letter dated December 8, 2016. The following changes have been made based upon the comments:

- a. On the first page of the permit, the permittee pointed out that the correct phone number for the facility is 681-842-3797. Therefore, the number has been changed from (304) 627-3225 to (681) 842-3797 on the cover (page 1).
- b. Regarding section 1.1., in the control device section, the permittee stated that the emission point ID CC01 should be changed to EN03. Therefore, the emission point ID has been changed to EN03.
- c. Regarding section 3.7.2., the permittee requested that 40 C.F.R. Part 64 be added to the permit shield list. The non-applicability determination has been added as permit section 3.7.2.f.
- d. Regarding condition 5.2.2., the permittee requested that the first sentence be revised to specify its applicability to FL03. The change is not necessary since the applicability is clear by the current permit language that specifies FL03 in parenthesis after the citation of authority.
- e. Regarding condition 5.3.1., the permittee requested that the frequency be changed from once per year to once per permit term as done in other facility’s permits. The permit for Oscar Nelson (109-00018) specifies the testing be conducted in the fourth year of the term. The permit for Loup Creek (109-00019) specifies the testing be within the third year of the permit term. The requested change has been made for testing to be conducted during the third year of the permit term.

- f. Regarding condition 5.5.1., the permittee requested to delete the requirement to include the report with the Title V renewal application since the report will be submitted close to when the application is due, and it would be a duplicate report that was previously submitted. This change has been made in the permit for Oscar Nelson (109-00018). The requested change has been made.
- g. Regarding conditions 7.1.1., 7.1.11., 7.1.12., 7.1.13., 7.1.17., 7.1.18., 7.3.1., and 7.3.2., the permittee requested deleting these conditions since the time has passed and these have already been addressed and/or completed.
 - i. Condition 7.1.1. specifies the Subpart ZZZZ 10/19/2013 applicability date for EN01 and EN02, which is passed. This condition has been deleted in the Title V renewal permit and subsequent conditions renumbered.
 - ii. Conditions 7.1.11., 7.1.12., 7.1.13., 7.1.17., and 7.1.18. are included in the underlying permit R13-2915A; therefore, these conditions will be retained in the Title V permit.
 - iii. Conditions 7.3.1. and 7.3.2. are for demonstrating initial compliance and are not included in the underlying permit R13-2915A; therefore, these conditions have been deleted and subsequent conditions renumbered.
- h. Regarding condition 7.1.5., the permittee requested to delete non-applicable items and Table 2c in the first sentence and specify only applicable item 6 of Table 2d. The requested change has been made.
- i. Regarding condition 7.1.6., the permittee requested to delete non-applicable tables. The requested change has been made.
- j. Regarding condition 7.2.1., the permittee requested adding the language “listed below” at the end of the introductory paragraph. The clarifying language has been added.
- k. Regarding condition 7.4.1., the permittee requested adding the language “of 40 C.F.R. Part 63 Subpart ZZZZ” within the first sentence. The clarifying language has been added.
- l. Regarding condition 7.5.9., the permittee requested only to keep the first sentence of the condition as the rest of the condition does not apply to EN01. The requested change has been made.
- m. Regarding condition 7.1.14., the permittee requested to correct the 40 C.F.R. Part 60 Subpart JJJJ emission standards to be those for engines manufactured after 7/1/2010 since engine EN03 was manufactured in 12/2010. The requirements from §60.4233(e) and Table 1 of Subpart JJJJ were incorporated into the current operating permit in permitting action SM01. The corresponding Fact Sheet only reads that the R13-2915 requirements for EN03 are incorporated without discussing the manufacture date and the applicable emission standards. The requested change has been made.
- n. Regarding condition 7.4.5., the permittee requested to correct the first statement to read as “...and the hours of operation of the ~~each~~ engine.” Even though the language is directly from the underlying permit, this grammatical error has been corrected.

Non-Applicability Determinations

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

1. **40 C.F.R. Part 60 Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.** The 1000 HP and 800 HP reciprocating engines with integral compressors (EN01 and EN02) were manufactured before July 11, 2005 and they are not compression ignition engines. Thus, these engines are not subject to 40 C.F.R. Part 60 Subpart IIII. The 750 HP reciprocating engine with integral compressor (EN03) and emergency generators (EG01 and EG02) are not compression ignition engines as defined in 40 C.F.R. §60.4219; therefore, these engines are not subject to 40 C.F.R. Part 60 Subpart IIII.
2. **40 C.F.R. Part 60 Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines.** The 1000 HP and 800 HP reciprocating engines with integral compressors (EN01 and EN02) were manufactured before July 12, 2006. Thus, these particular engines are not subject to 40 C.F.R. Part 60 Subpart JJJJ.
3. **40 C.F.R. Part 63 Subpart HHH – National Emission Standards for Hazardous Air Pollutants from Natural Gas Transmission and Storage Facilities.** The Sardis Station is not subject to Subpart HHH since the station transports production gas to Hastings Extraction Plant, and it is also not a storage station. Additionally, Sardis Station is a minor (area) source of HAPs.
4. **40 C.F.R. 63 Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters.** The reboiler (RBR02) is not subject to this subpart since it is exempt by §63.7491(h) as a boiler or process heater that is part of the affected source subject to another subpart of part 63 (i.e., Subpart HH). The definition of *Glycol dehydration unit* in §63.761 reads that the “[Rich] glycol is then regenerated in the glycol dehydration unit reboiler.” This implies that the reboiler is part of the glycol dehydration unit, and a TEG dehydration unit is the affected source specified in §63.760(b)(2) for area sources of HAP. Moreover, the facility is not a major source of HAPs. For these reasons, Subpart DDDDD does not apply to the reboiler RBR02.
5. **40 C.F.R. 63 Subpart JJJJJ – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources.** This subpart applies to an industrial, commercial, or institutional boiler as defined in §63.11237 that is located at, or is part of, an area source of hazardous air pollutants (HAP) according to §63.11193. The Sardis Station is an area source of HAPs and operates a reboiler RBR02. However, the reboiler RBR02 is not subject to this subpart since it is considered a *Process heater*, which is specifically excluded from the definition of *Boiler*, both of which are defined in 40 C.F.R. §63.11237.

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: January 4, 2017
Ending Date: February 3, 2017

Point of Contact

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

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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)

Public Comments

No comments were received from the public, including the permittee.

U.S. EPA Comments

The following comments were received on February 2, 2017, via e-mail from Mr. Paul Wentworth at EPA Region 3. Responses to the comments have been written below each comment.

Comment 1:

Reference: 4.1.1. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average.

[45CSR§2-3.1., 45CSR13, R13-2915, 6.1.1.]

EPA Comment: It appears that this limit is met by the use of natural gas. So It is not clear why the following applicable retirements are needed :

4.1.2. Compliance with the visible emission requirements of 45CSR§2-3.1 shall be determined in accordance with 40 C.F.R. Part 60 Appendix A, Method 9 or by using measurements from continuous opacity monitoring systems approved by the Director. The Director may require the installation, calibration, maintenance and operation of continuous opacity monitoring systems and may establish policies for the evaluation of continuous opacity monitoring results and the determination of compliance with the visible emission requirements of 45CSR§2-3.1 (Section 4.1.1.). Continuous opacity monitors shall not be required on fuel burning units which employ wet scrubbing systems for emission control.

[45CSR§2-3.2., 45CSR13, R13-2915, 6.1.2.]

4.2.1. At such reasonable times as the Secretary may designate, the permittee shall conduct Method 9 emission observations for the purpose of demonstrating compliance with Section 4.1.1. Method 9 shall be conducted in accordance with 40 C.F.R. Part 60 Appendix A.

[45CSR13, R13-2915, 6.2.1.]

The inclusion of these requirements seems to add confusion as to what kind of monitoring is required. Though the type of monitoring is spelled out in the first requirement, the frequency of monitoring is not clear because of the language in the second monitoring. In short, there seems no reason why sections 4.1.2 and 4.2.1 are needed if a statement was added indicated the use of natural gas demonstrates compliance with requirement 4.1.1.

DAQ Response to Comment 1:

The requirements in condition 4.1.2. were included for two reasons. First, 45CSR§2-3.2. is an applicable requirement from WV State Rule 2 that defines how compliance shall be determined, and only two means are prescribed: Method 9 or COMS. Second, the requirements in 4.1.2. were included because the underlying NSR permit has also made 45CSR§2-3.2. an applicable requirement within itself. And so the NSR permit requirement has been included in the operating permit because it is an applicable requirement. The requirement in condition 4.2.1. is derived from the NSR permit alone, and though it doesn't prescribe a set frequency, it makes provision to monitor the opacity at "such times as the Secretary may designate". So the requirement is designed to provide monitoring if necessary, considering the fact that the source combusts natural gas and is not expected to produce visible emissions.

Finally, it appears that you have suggested to add a statement that use of natural gas demonstrates compliance with the opacity. DAQ would prefer to work with the applicable requirements as they are because (1) they are from the rule; and (2) they provide for the Director, at his discretion, to verify the opacity. But to in some way streamline the opacity limit by combustion of natural gas may not always be true. The requirements as they are written in the proposed permit allow for monitoring at the Director's discretion and does not give the permittee a "free pass" on opacity, even though no VEs are expected because of natural gas combustion.

In summary, DAQ prefers to retain conditions 4.1.2. and 4.2.1. as they have been written in the draft permit.

Comment 2:

Reference: 7.1.1. The Permittee shall comply with all applicable requirements of 40 C.F.R. Part 63 Subpart ZZZZ, Stationary Reciprocating Internal Combustion Engines by October 19, 2013 for the 800 HP and 1000 HP reciprocating engines with integral compressors.
[45CSR34, 40 C.F.R. §63.6595(a)(1)] (EN01 and EN02)

EPA Comment: This applicable requirement is no longer required to be in the permit. It should be removed

DAQ Response to Comment 2:

I provided a rationale for keeping this requirement in Section 7.g.i. of the Fact Sheet. However, considering that the Subpart ZZZZ requirements' applicability is specified by citing the affected emission unit after each citation of authority, this requirement will be deleted. Subsequent condition numbers will be renumbered and the Fact Sheet modified to address the changes.

U.S. EPA Response:

We have no further comments on this permit, and do not object to its issuance prior to the end of EPA's 45 day period.