West Virginia Department of Environmental Protection
Division of Air Quality

Fact Sheet

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

This Fact Sheet serves to address the changes specific to this Significant Modification, and shall be considered a supplement to the Fact Sheet corresponding with the Title V operating permit issued on September 15, 2011.

Permit Number: **R30-03300013-2011 (SM02)**
Application Received: **June 10, 2013**
Plant Identification Number: **033-00013**
Permittee: **Dominion Transmission, Inc.**
Facility Name: **Sardis Station**
Mailing Address: **445 West Main Street, Clarksburg, WV 26301**

Permit Action Number: *SM02* Revised: *December 10, 2013*

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 Dominion Transmission, Inc. (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 48612. The Sardis Station currently operates three (3) natural gas fired reciprocating compressor engines. These engines are rated at 1000hp, 800hp, and 750hp. Additionally, the station utilizes two (2) 192.5hp emergency generators, one (1) 22 MMscf/d field gas dehydration column, one (1) 1.437 MMBtu/hr glycol dehydration unit reboiler, one (1) 4.0 MMBtu/hr dehydration unit still flare, two (2) 2,730-gallon aboveground engine oil storage tanks, one (1) 2,500-gallon aboveground ethylene glycol storage tank, one (1) 230-gallon aboveground wastewater storage tank, one (1) 5,000-gallon aboveground natural gas produced fluids storage tank, one (1) 500-gallon aboveground wastewater storage tank, and one (1) 520-gallon aboveground triethylene glycol (TEG) storage tank. The station has the potential to operate seven (7) days per week, twenty-four (24) hours per day. The Sardis Station compresses production gas to Hastings Extraction Plant.

This significant modification involves the installation of an oxidation catalyst on emission unit (EN01), the 1000 hp RICE. The emission unit is a 4SLB Ingersoll Rand 36KVS-ET compressor engine, which was installed in 1961. The installation of control is necessary to comply with the equipment standard defined by 40 C.F.R. 63, subpart ZZZZ as amended on January 30, 2013.

Emissions Summary

The following table summarizes the change in emissions resulting from the installation of an oxidation catalyst on the 1000 hp Ingersoll Rand Compressor Engine.

Regulated Pollutants	SM01 PTE	SM02 PTE	Change PTE
	TPY	TPY	TPY
Carbon Monoxide (CO)	48.28	3.38	-44.9
Nitrogen Oxides (NO_X)	260.7	260.7	0
Particulate Matter ($PM_{2.5}$)	0.31	0.31	0
Particulate Matter (PM_{10})	0.31	0.31	0
Total Particulate Matter (TSP)	0.31	0.31	0
Sulfur Dioxide (SO_2)	0.02	0.02	0
Volatile Organic Compounds (VOC)	48.27	48.27	0
PM_{10} is a component of TSP.			

Title V Program Applicability Basis

With the proposed changes associated with this modification, this facility maintains the potential to emit over 100 tons per year of Nitrogen Oxides (NO_X) and Volatile Organic Compounds (VOC). Due to this facility's potential to emit over 100 tons per year of criteria pollutant, Dominion Transmission, Inc. 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.

The modification to this facility has been found to be subject to the following applicable rules:

Federal and State:	40 C.F.R. Part 63 Subpart ZZZZ	National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
	45CFR34	Emission Standards for Hazardous Air Pollutants.
State Only:	45CSR4	To Prevent and Control the Discharge of Air Pollutants into the Open Air which Causes or Contributes to an Objectionable Odor or Odors.

Each State and Federally-enforceable condition of the draft Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the draft Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the draft 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)*
R13-2915	April 30, 2012	
G60-C026	January 4, 2011	

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 B," which may be downloaded from DAQ's website.

Determinations and Justifications

40 C.F.R. Part 63 Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

It was determined that EN01 is subject to the equipment standards defined for area sources in non-remote areas in accordance with the January 30, 2013 amendments to the regulation. These requirements specify that an oxidation catalyst has to be installed by October 19, 2013. Initial compliance requirements specify that the catalyst should reduce CO emissions by at least 93% or reduce the exit concentration of CO to 47 ppm or below at 15% O_2.

The standard states that a continuous parameter monitoring system (CPMS) shall be installed to monitor catalyst inlet temperature and maintain it between 450°F and 1350°F. As an alternative to the CPMS, the source can also have equipment installed to automatically shut down the engine if the catalyst inlet temperature exceeds 1350°F. The requirements of this standard specify that an annual catalyst activity test be conducted to verify through testing that the catalyst is maintaining the appropriate CO reduction.

Specific changes incorporated by this significant modification include the following:

1. Section 1.1 Emission Units was updated to include a control device, CC02, listing for emission unit EN01. Additionally, within the description of this unit, 4SLB was added to clarify the type of engine as a four stroke lean burn. Also at the bottom of the table under control devices a listing for CC02 was added.

2. Permit condition 7.1.2 was updated to reflect the changes to table 2d within 40 C.F.R. 63, subpart ZZZZ. Specifically, the new equipment standard was incorporated for the 4SLB RICE > 500 hp located as an area source of HAPs in a non-remote area that operates more than 24 hours per calendar year. The equipment standard requires the installation and operation of an oxidation catalyst to reduce HAP emissions from the stationary RICE.

3. Also within condition 7.1.2 the reference to table 2b was deleted as a result of the changes incorporated within the January 30, 2013 amendments. These changes removed the applicability of this table to existing 4SLB stationary RICE > 500 hp located at an area source of HAPs. This was a result of EPA incorporating an equipment standard for this type of RICE rather than an emission standard. Lastly, some additional text was added to the EN02 requirements stemming from table 2d in accordance with the amended regulation.

4. Permit condition 7.1.4 was revised to incorporate the changes to 40C.F.R.§63.6630(a) and Table 5. Additionally, the (b) requirement of this section was removed since there are no longer any Table 1b or 2b applicability associated with EN01, which is a 4SLB RICE > 500 hp located at an area source of HAPs in a non-remote area.

5. Previous permit condition 7.1.5 was relocated to 7.2.2 along with new amended language in accordance with 40C.F.R.§63.6635(b).

6. Previous permit condition 7.1.6 was relocated to 7.1.8 and updated with the new amended language in accordance with 40C.F.R.§63.6640. Additionally, 40C.F.R.§63.6640(e) which was originally included under 7.1.6(c) was relocated to 7.5.10.

7. A new condition 7.1.5 was inserted to encompass previous permit condition 7.2.1.c since this condition was an operating requirement rather than monitoring. The nomenclature of (c) and (1.1) were also changed to (e) and (5) to match 40C.F.R.§63.6625(e).

8. A new condition 7.1.6 was inserted to encompass previous permit condition 7.2.1.e for the same reasons as #7 above, but with respect to 40C.F.R.§63.6625(j).

9. A new condition 7.1.7 was inserted to encompass previous permit condition 7.2.1.d for the same reasons as #7 above, but with respect to 40C.F.R.§63.6625(h).

10. Previous permit condition 7.1.7 was renumbered as 7.1.9.

11. Similarly, the previous 7.1.8 requirement was moved up two places to 7.1.10. From this point on all section 7.1 conditions were renumbered and increased by two digits. This was due to the reorganization associated with moving the existing condition 7.1.5 to 7.2.2 and then adding three new conditions under 7.1.5, 7.1.6, and 7.1.7. After 7.1.6 was relocated to 7.1.8 it caused all other conditions to also be increased by two. Likewise, the reference to 7.1.13 was changed to 7.1.15 at the end of new condition 7.1.10.

12. Condition 7.2.1(a) was removed because it addressed continuous emission monitoring (CEM) requirements which are not plausible for EN01 to use as a compliance alternative. This is based on the source using an oxidation catalyst to comply with the equipment standard and its associated monitoring being based on catalyst inlet temperature. Since the temperature operating limit range is quite large, between 450 and 1350°F, and temperature is much easier to monitor continuously than direct emissions, CEM monitoring would not be justified.

13. Condition 7.2.1.b was revised to reflect some minor typo corrections in accordance with the January 30, 2013 amendments. Additionally, the last sentence of text was removed from the first paragraph since it related to compliance dates that were not applicable to EN01. EN01's in the source category corresponding with the October 19, 2013 compliance date rather than the March 9, 2011 date referenced here.

14. Conditions 7.2.1.c, d, and e were removed and relocated as permit conditions 7.1.5, 7.1.6, and 7.1.7 as specified in items 7, 8, and 9 referenced above.

15. Existing condition 7.1.5 was relocated and updated within a new condition 7.2.2 as referenced in item 5 above.

16. Previous condition 7.2.2 was moved up to 7.2.3. for emission source EN03. This was in an effort to allow the EN01 monitoring conditions to coincide with each other.

17. As a result of applicability changes stemming from the January 30, 2013 amendments to 40CFR63, subpart ZZZZ, the testing requirements of 7.3.1 and thus 40C.F.R.§63.6615 with respect to subsequent performance testing are no longer applicable to the EN01 engine. Therefore the previous 7.3.1 requirement was removed.

18. Also for the reasons noted in item 17, previous permit condition 7.3.2 was also removed due to 40C.F.R.§63.6620 no longer being applicable under the equipment standard requirements defined for EN01 as an area source RICE. Although, these sources do still have to conduct compliance testing it is termed a demonstration rather than a performance test. See new conditions 7.3.2 and 7.3.3 discussed below for additional details.

19. Permit condition 7.3.3 was relocated to 7.3.1 since the first two conditions of this section were no longer applicable.

20. A new 7.3.2 condition was added to incorporate the initial compliance demonstration requirements defined within 40C.F.R.§63.6630(e).

21. New condition 7.3.3 was added to specify annual compliance demonstration requirements in accordance with 40C.F.R.§63.6640(c).

22. Within conditions 7.4.1 and 7.4.2, the citation was revised to eliminate the reference to EN02. Since this 2SLB motor is subject only to the work practice standards, it does not have to comply with the recordkeeping specific to sources subject to the emission and operating limitations or the CEM or CPMS requirements respectively.

23. Condition 7.4.5 was revised to correct the cross reference to section 7.1 as a result of restructuring. Condition 7.1.7 was revised to 7.1.9 and 7.1.8 was changed to 7.1.10.

24. A new condition 7.5.10 was added to incorporate the reporting conditions associated with the general provisions and table 8 of the applicable subpart. The conditions mirrors that of 40C.F.R.§63.6640(e) which was originally included within original permit condition 7.1.6.c.

Non-Applicability Determinations

None

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:	October 25, 2013
Ending Date:	November 25, 2013

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

Carrie McCumbers
Title V Permitting Supervisor
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

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.

Point of Contact

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Response to Comments (Statement of Basis)

No comments were received.