

Fact Sheet



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

Permit Number: **R30-03900051-2012**

Application Received: **July 27, 2011**

Plant Identification Number: **039-00051**

Permittee: **Dominion Transmission, Inc.**

Facility Name: **Cornwell Station**

Mailing Address: **445 West Main Street, Clarksburg, WV 26301**

Revised: N/A

Physical Location: Clendenin, Kanawha County, West Virginia
UTM Coordinates: 476.19 km Easting • 4,259.58 km Northing • Zone 17
Directions: From I-79, take exit 10 to WV State Route 4, then take Route 4 north to Clendenin, cross Elk River on Queen Shoals Road (Route 1). Turn left onto River Haven Road (Route 1/6) and proceed 2.5 mile to station.

Facility Description

Cornwell Station is a natural gas transmission and production station covered by SIC Code 4922. The natural gas is compressed to a higher pressure by the 13 integral compressors powered by the natural gas-fired reciprocating engines. The station also has one (1) 23 mmscf/day glycol dehydration unit with flare and a 0.62 mmBtu/hr boiler. The dehydration system and engines EN07, EN08, and EN09 are on a production line.

Plantwide Emissions Summary [Tons per Year]

Regulated Pollutants	Potential Emissions	2010 Actual Emissions
Carbon Monoxide (CO)	517.53	313.85
Nitrogen Oxides (NO _x)	3299.46	530.88
Particulate Matter (PM ₁₀) <i>PM₁₀ is a component of TSP.</i>	6.91	4.04
Total Particulate Matter (TSP)	6.91	4.04
Sulfur Dioxide (SO ₂)	0.79	0.64
Volatile Organic Compounds (VOC)	419.85	264.35

Hazardous Air Pollutants	Potential Emissions	2010 Actual Emissions
Formaldehyde	32.57	14.83
Acrolein	4.29	2.84
Acetaldehyde	3.16	2.98
Benzene	2.10	0.80
Ethylbenzene	0.14	0.14
Toluene	0.83	0.73
Xylene	0.76	0.76
Hexanes	0.50	0.22

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

Title V Program Applicability Basis

This facility has the potential to emit 518 tons per year of CO, 3299 tons per year of NOx, 420 tons per year of VOCs, and 33 tons per year of Formaldehyde. Due to this facility's potential to emit over 100 tons per year of criteria pollutants, over 10 tons per year of a single HAP, and over 25 tons per year of aggregate HAPs, Dominion Transmission, Inc.'s Cornwell 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	PM emissions.
	45CSR6	Open burning prohibited.
	45CSR10	SO ₂ emissions.
	45CSR11	Standby plans for emergency episodes.
	45CSR13	Construction Permits.
	45CSR16	Performance Standards 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.
	40CFR Part 60, subpart JJJJ	NSPS for Internal Combustion Engines.
	40 CFR Part 61	Asbestos inspection and removal.
	40 CFR Part 82, subpart F	Ozone depleting substances.
	40 CFR Part 63, subpart HH	Natural Gas Production MACT.
	40 CFR Part 63, subpart ZZZZ	Reciprocating Internal Combustion Engines MACT
State Only:	45CSR4	No objectionable odors.
	45CSR17	Particulate fugitive.

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>)
R13-2175D	April 30, 2012	
R13-2346B	May 30, 2003	

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.

Determinations and Justifications

This is a permit renewal for this facility. The following changes have occurred since the original permit was issued:

Title V Boilerplate changes:

A new Section 1.2 Table was added which lists all the active R13, R14, and/or R19 permits and their date(s) of issuance. The underlying authority for any conditions from R13, R14, and/or R19 permits cite the original permit number in the Title V permit. These changes will eliminate the need to go through the entire Title V permit to change the R13, R14, and/or R19 permit numbers each time an R13, R14, and/or R19 permit is modified. The only required change will be to the Section 1.2 Table.

Conditions 3.1.1. and 3.1.2. were revised because the language in 45CSR§§6-3.1. and 3.2. changed.

Condition 3.1.3. citation was changed because 45CSR15 was repealed and 40 CFR 61 is now incorporated into 45CSR34.

Condition 3.3.1.d. was added.

Conditions 3.5.3.and 3.5.5. were revised to address electronic submittal of the annual certification to the USEPA. The certification shall now only be submitted to the USEPA by e-mail.

Other changes:

Condition 5.2.1. was revised. EPA has commented on previous permits that allowing the permittee to have any days before a Method 9 test must be conducted and to take corrective action allows the permittee to be out of compliance for that length of time. The permit now states that a Method 9 test must be conducted immediately, unless corrective action is taken as expeditiously as possible and the cause and corrective measures taken are recorded.

Condition 6.1.2. in the original permit (now Condition 6.1.4.) was revised to make it easier to read and to remove the phrase, "and shall use the specified control devices" since no control device was specified.

R13-2175C and NSPS Subpart JJJJ - The permittee applied for an amendment to R13-2175C and for a significant modification to the Title V permit on February 8, 2012 to replace the existing Cooper 660 hp compressor engine (001-03) with a new Ajax 750 hp compressor engine (001-10) equipped with a catalytic

converter to reduce CO and VOC emissions.

The significant modification has been combined with this Title V renewal and the plantwide emissions table has been amended to reflect the following changes:

Pollutant	Emissions Change (tpy)
Carbon Monoxide (CO)	-13.74
Nitrogen Oxides (NO _x)	-122.19
Particulate Matter (PM ₁₀)	0.77
Sulfur Dioxide (SO ₂)	0.0
Volatile Organic Compounds (VOC)	-12.25
Formaldehyde	0.12

The new Ajax engine is subject to 40 CFR part 60, subpart JJJJ, which sets forth emission limits, fuel requirements, installation requirements, and monitoring requirements based on the year of installation of the internal combustion engine. The new engine is subject to this rule because the engine will commence construction after June 12, 2006, and is manufactured on or after January 1, 2008 and is a lean burn engine with maximum engine power equal to or greater than 500 hp and less than 1,350 hp. The emission limits for this engine are: NO_x – 1.0 g/hp-hr (1.66 lb/hr); CO – 2.0 g/hp-hr (3.31 lb/hr); and VOC – 0.7 g/hp-hr (1.16 lb/hr). Based on the manufacturer’s specifications for these engines: NO_x – 1.65 lb/hr; CO – 1.23 lb/hr; and VOC – 0.50 lb/hr, the emission standards will be met.

Because the new engine will not be certified by the manufacturer, Dominion will be required to perform an initial performance test within 1 year of engine startup, and subsequent testing every 8,760 hours or 3 years, whichever comes first. In addition, Dominion will be required to maintain and operate the engine in a manner consistent with good air pollution control practices for minimizing emissions, and keep a maintenance plan.

The 40 CFR part 60, subpart JJJJ requirements have been incorporated into Section 7.0 of the Title V permit. The conditions not carried over into the Title V permit from the NSR permit include:

- 6.1.2. because the source is already required to obtain a Title V permit
- 6.1.3. because it is a possible exemption, not an applicable requirement
- 6.3.2. because the engine is not modified, reconstructed, or relocated

40 CFR Part 63, Subpart ZZZZ is an applicable requirement for engines EN07 and EN08, which are production side engines. The production side is not a major source of HAPs in accordance with the definition of a major source in 40 CFR § 63.6675. EN07 is an existing 4-stroke lean burn unit larger than 500 hp and EN08 is an existing 2-stroke lean burn unit less than 500 hp. Both engines are subject to the requirements in Table 2d and EN07 is subject to the operating limits in Table 2b. Additional Subpart ZZZZ monitoring, testing, recordkeeping and reporting requirements are incorporated in Section 6.0 of the Title V permit.

Engine EN09 is also a production side engine, however as a new stationary RICE subject to 40 CFR part 60, subpart JJJJ, it meets the requirements of 40 CFR part 63, subpart ZZZZ in accordance with 40 CFR §§63.6590(c) and (c)(1). No further subpart ZZZZ requirements apply for such engines.

Engines EN10 through EN19 are transmission side engines and are major for HAPs because of aggregated formaldehyde emissions. They have no Subpart ZZZZ requirements in accordance with 40 CFR § 63.6590(b)(3) because they are existing, are either 2SLB or 4SLB, and have a site rating of more than 500 hp.

Non-Applicability Determinations

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

40 CFR 64 - Compliance Assurance Monitoring. The dehydration system and the new Ajax engine (EN09) have control devices, but neither source has potential pre-control device emissions of any pollutant that would classify it as a major source, therefore in accordance with 40 CFR §64.2(a)(3), the dehydration system and EN09 are not PSEUs for CAM. The rest of the facility was found not to be subject to CAM at the time of the first renewal.

There are no applicable requirements for tanks because there is no tank equal to or greater than 75 m³.

Greenhouse Gas Permitting - This is a renewal Title V permit. The significant modification increases CO₂ equivalent by 2,958 tons/year and does not trigger a PSD permit. Therefore, there are no applicable GHG requirements.

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: May 25, 2012

Ending Date: June 25, 2012

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

Bobbie Scroggie
Title V Permit Writer
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

Bobbie Scroggie
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
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Response to Comments

None.