



west virginia department of environmental protection

Division of Air Quality
601 57th Street, SE
Charleston, WV 25304-2345
Phone: 304 926 0475 • Fax: 304 926 0479

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

MEMORANDUM

To: Beverly McKeone, NSR Program Manager
From: Ed Andrews, Engineer 
Date: April 9, 2015
Subject: Memo regarding PD15-031 for Dominion Transmission Inc. – Hastings Extraction Plant 103-00009

On April 3, 2015, Dominion Transmission Inc. filed a permit determination request for installing a replacement boiler at the Hastings Extraction Plant. This particular request proposes to replace an existing 16.75 MMBtu/hr, gas-fired boiler (BL02) with a new 25.2 MMBtu/hr, gas fired boiler, which will be identified as BL03.

The burner for the new boiler will be Power Flamer Model LNICM10C-G030. This burner is configured to minimize the formation of NO_x to 25 ppm while controlling carbon monoxide emissions to 50 ppm. The applicant used emission factors provide by the burner manufacturer to determine the potential to emit from BL03. Presented in the following table are the potential emissions for the new boiler.

Pollutant	Hourly Rate (lb/hr)	Annual Rate (TPY)
Particulate Matter (PM)	0.12	0.53
Particulate Matter Less Than 10 microns (PM ₁₀)	0.12	0.53
Particulate Matter less than 2.5 microns (PM _{2.5})	0.12	0.53
Sulfur Dioxide (SO ₂)	0.01	0.04
Oxides of Nitrogen (NO _x)	0.76	3.33
Carbon Monoxide (CO)	0.93	4.07
Volatile Organic Compounds (VOCs)	0.63	2.76
Total Hazardous Air Pollutants (HAPs)	0.05	0.22
Carbon Dioxide Equivalent (CO _{2e})	2,950.87	12,924.81

BL03 is subject to Subpart Dc of Part 60 since the unit will have a maximum design heat input of greater than 10 MMBtu/hr. The emission standards under Subpart Dc do not apply to BL03 since it will only burn natural gas.

Currently, the Hastings Compressor Station (103-00008) is classified as a major source for HAPs. Dominion has submitted Permit Application R13-2870B to make the existing control device (flare) on the existing glycol dehydration unit federally enforceable, which will change the status of the Hastings Compressor Station to a synthetic area source of HAPs.

The Hastings Compressor Station and Hastings Extraction Plant are contiguous with each other. However, the definition of "major source for oil and natural gas production facilities" (40 CFR §63.7575) in Subpart DDDDD (Boiler MACT) to Part 63 notes that only HAPs emissions oil and gas production facilities shall be aggregated for major source determination. Further in this same definition, emission from processes, operations, or equipment that are not part of the same facility, as defined in this subpart, shall not be aggregated. Applying this definition to the Hastings facility means that the HAP emissions from the Hastings Compressor Station cannot be aggregated with the HAP emissions from the Hastings Extraction Plant for major source applicability determination. The Extraction Plant, which includes the existing boiler, is classified as an area source for HAPs. This proposed new boiler will not affect the status of the extraction plant as an area source of HAPs and the unit would not be subject to Subpart DDDDD to Part 63.

The new boiler would be subject to two State Rules, which are 45 CSR 2 (Rule 2) and 45 CSR 10 (Rule 10). BL03 would be subject to the PM and visual emissions standards of Rule 2. Because the burner is configured for gaseous fuel only, the proposed unit would not have any issue achieving and maintaining compliance without the use on any add-on control device. 45 CSR §2-8.3.b. excludes natural gas burning sources from the testing and monitoring requirements of Section 8 of Rule 2. The applicant would only be required to maintain records of fuel usage under 45 CSR §2-8.3.

Rule 10 establishes allowable limits of sulfur dioxide from fuel burning units (i.e. boilers). The allowable for this proposed unit under this rule (45 CSR §10-3.3.f.) would be 80 pounds per hour of sulfur dioxide. The potential from burning natural gas would be 0.01 pounds per hour. 45 CSR §10-10.3. excludes natural gas burning units from Section 8 of this rule (Testing, Monitoring, Recordkeeping and Reporting).

The proposed boiler does not have a potential to emit that reaches or exceeds the modification trigger level under Rule 13 for a modification permit or significance level under Rule 14 for a Major Modification Permit. There are no federal regulations that the unit is subject which establishes a substantive requirement. The applicable state rules excludes natural gas burning units from conducting periodic testing and monitoring for the purpose of demonstration compliance to the applicable standards. Therefore, the writer recommends that a no permit needed letter be issued for this permit determination.