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MEMORANDUM

To: Beverly McKeone, P.E. – New Source Review Program Manager
From: Ed Andrews, Engineer 
Date: May 2, 2016
Subject: Class II Administrative Update Request of Permit R13-2555B (R13-2555C) for Dominion Transmission, Inc. – Mockingbird Hill Compressor Station (103-00006)

On January 13, 2016, Dominion Transmission, Inc. filed Class II Administrative Update of Permit R13-2555B (R13-2555C) and Class I Administrative Update Request of Permit R13-3249 (R13-3249) to move the applicable requirements of the AUX06 (Generac QT080 emergency generator), which is physically located closer to the Hastings Compressor Station than Mockingbird Hill.

The following conditions from Permit R13-2555B will be omitted and inserted into R13-3249B.

Table #1 – Condition Changes		
Removed from Permit R13-2555B	Inserted into R13-3249B as Condition	Notes
4.1.6.	4.1.5.	Limitation on the engine
4.2.1.	4.2.6.	Tracking hours of operating
4.2.2.	4.2.7.	Certified compliance model engine as allowed per Subpart JJJJ
4.2.3.	4.2.8.	Condition requires monitoring per Subpart JJJJ
4.4.5.	4.2.8.	Streamline recordkeeping into the monitoring requirements Condition 4.2.8.

Condition 4.3.5 of Permit R13-2555C requires Dominion to conduct performance testing of AUX06 to demonstration compliance with Subpart JJJJ, which is one of the compliance options under Subpart JJJJ. Dominion had elected to purchase a generator set equip with a certified compliance model engine to the subpart, which is preferred means of complying with Subpart JJJJ. EPA’s Engine Certification Number for the engine used in the emergency

generator was included with Permit Application R13-2555B. Thus, this condition is not necessary and was omitted.

Included in this request, Dominion has elect to include changes made to Aux Gen 02 and Aux Gen 03. These are natural gas fired microturbines, which are used to generate electric power to the facility on an as needed basis. In 2011 and 2015, Aux Gen 03 and 02, respectively, experienced failures of the powerhead of these microturbines. The repairs to these microturbines called for replacement of the powerhead unit, which increased the power output by 7 hp for each unit up to 87 hp. Thus, these repairs increase the potential to emit above the current permitted limits. The following table is a summary of the actual increase in potential to emit.

Pollutant	Hourly Change (lb/hr)	Daily Change (lb/day)	Annual Change (tpy)
PM/PM ₁₀ /PM _{2.5}	-0.06	-1.44	-0.01
SO ₂	+0.01	+0.24	+0.03
CO	0.00	0.00	0.00
NO _x	0.00	0.00	0.00
VOC	-0.01	-0.24	+0.04
Total HAPs	-0.02	-0.48	-0.03

This writer believes the changes are due to a rounding error from permitted limits to the new potential and that the original permit did not have limits from SO₂ emissions. Table 4.1.1. was updated for Aux Gen 02 & 03 to reflect the changes in VOC, PM₁₀, SO₂, and HAPs limits. Also, these upgraded generators can consume more natural gas, therefore the fuel limit in Condition 4.1.3. was increased by 900,000 cubic feet to 21.9 MMSCF per year.

During this review, this writer noticed that 45 CSR §§10-5.1. and 10-5.4. were inserted in the permit as Conditions 4.1.8. & 4.1.9. These provisions only apply to combustion units burning refinery or process gas streams. The Mockingbird Hill Compressor Station does not generate any process gas stream. It only burns and compresses pipeline quality natural gas. Therefore, these provisions of Rule 10 do not apply at the Mockingbird Hill Compressor Station. The writer recommends omitting these two conditions from the finalized permit.

This request meets the criteria of a Class II Administrative Update under Section 4.2.b. of 45 CSR 13. Thus, this writer recommends to the Director as a response to Dominion's request to issue Permits R13-3249B and R13-2555C to Dominion Transmission Inc., for their Mockingbird Hill Compressor Station located near Pine Grove, WV.