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west virginia department of environmental protection

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Earl Ray Tomblin, Governor  
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**MEMORANDUM**

**To:** Ms. Beverly McKeone, NSR Program Manager

**From:** Thornton E. Martin Jr., Permit Engineer

**Date:** July 11, 2016

**Subject:** Class II Administrative Update of R13-2679E for Pratt & Whitney Engine Services, Inc. (033-00005)

On June 08, 2016, Pratt & Whitney Engine Services, Inc. (PWES) requested to administratively update their permit to increase the current permit limit for annual sulfur dioxide (SO<sub>2</sub>) emissions of 0.2 tons per year (TPY) to an annual limit of 1.5 TPY.

PWES as described in its' Regulation 13 Permit (R13-2679E) has a variety of operations at the Bridgeport, WV facility. One of the operations involves Test Cells in which aircraft engines are tested in simulated normal operating conditions after an engine is serviced.

The current permit requires PWES to track the number of engines tested and has maximum annual emission limits for the pollutants associate with the test cells. Prior to accepting engines for testing, PWES reviews the engine potential emissions to verify that the engine is acceptable for testing at Bridgeport. In their review of potential new engine models, new emission data for engines to be tested and the varying sulfur content in fuel (Jet A), which could impact the sulfur dioxide emissions, PWES believes their current permit limit should be increased.

The proposed increase in annual emissions of SO<sub>2</sub> is to ensure permit compliance with respect to any future conditions (new engine models, engine emission factors and fuel sulfur content variations). PWES proposes to increase the SO<sub>2</sub> annual limit to 1.50 TPY. PWES requests that this limit not be split between the various test cells but considered a facility test cell aggregate emission limit. The previous and new potential emissions from these Test Cells as are presented in the following tables.

Previous:

<b>Table 4.1.5.b: Engine Test Cell Annual Emission Limits</b>					
<b>Source</b>	<b>Emission Limit (TPY)</b>				
	<b>PM</b>	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>SO<sub>2</sub></b>	<b>VOC</b>
Test Cell 1	N/A	3.07	4.88	N/A	1.04
Test Cell 3	N/A	3.07	4.88	N/A	1.04
Test Cell 5	0.09	34.02	22.18	0.10	13.19
Test Cell 6	0.19	34.02	22.18	0.10	7.89

New:

<b>Table 4.1.5.b: Engine Test Cell Annual Emission Limits</b>					
<b>Source</b>	<b>Emission Limit (TPY)</b>				
	<b>PM</b>	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>SO<sub>2</sub></b>	<b>VOC</b>
Test Cell 1	N/A	3.07	4.88	1.50	1.04
Test Cell 3	N/A	3.07	4.88		1.04
Test Cell 5	0.09	34.02	22.18		13.19
Test Cell 6	0.19	34.02	22.18		7.89

To verify compliance with the new SO<sub>2</sub> annual limit, the following condition was added to the permit:

- 4.2.7. For the purposes of determining compliance with the maximum sulfur content limits set forth in 4.1.5.b., the applicant shall, at a minimum, obtain from the fuel (Jet A) supplier, the specification sheet for each load of Jet A fuel received for documentation of the sulfur content of the fuel supplied. An alternative means of determining compliance with 4.1.5.b. shall be subject to prior approval from the Director.

This request qualifies as Class II Administrative Update in accordance with 45 CSR §13-4.2.a.6. The applicant filed a complete application, paid the filing fee, and published a legal to satisfy the requirements of a Class II Administrative Update under 45 CSR 13. Thus, the writer recommends issuing R13-2679F to Pratt & Whitney Engine Services, Inc. in accordance with 45 CSR13.