



west virginia department of environmental protection

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MEMORANDUM

To: Beverly D. McKeone
From: Steven R. Pursley, PE *SAP*
Date: January 20, 2015
Subject: R13-3041A

On October 17, 2014, the WV DAQ received a request from EQT Production Company for a Class I administrative update to permit R13-3041. The request involved replacing four 210 bbl produced fluids tanks (total of 840 bbls) with two 400 bbl tanks (total of 800 bbls). No other changes were requested.

Emissions from the four existing tanks were limited in permit R13-3041 to 5.03 pounds per hour and 22.01 tons per year of VOCs. These emissions were originally calculated using a two part process. Working and breathing losses were calculated using the EPA Tanks 4.0.9d program and flashing emissions were calculated (calculations were performed by the writer and agreed to by EQT) using a spreadsheet based on the Vasquez Beggs equation. With this application EQT submitted E&P TANK v2.0 calculations showing that VOC emissions from the two new tanks will be 2.56 pounds per hour and 11.22 tons per year. This represents an emission decrease of 2.47 pounds per hour and 10.79 tons per year of VOCs. R13-3041 limited throughput through the four tanks to 168,000 gallons per year (combined). The data input sheet for the E&P TANK program submitted with the application listed the throughput as 9 bbls per day, 365 days per year (137,970 gallons per year).

The existing permit has no HAP emission limits on the tanks. This is because the working and breathing losses were trivial and the Vasquez Beggs equation was only used to determine VOC flashing emissions not HAP flashing emissions. With this update a HAP emission limit of 0.08 pounds per hour and 0.37 tons per year was added (based on the afore mentioned E&P TANK v2.0 calculations).

The previous four tanks were exempt from 40 CFR 60 Subpart OOOO because they were constructed before August 23, 2011. The new tanks will be subject to the rule. However, since

emissions from the tanks are less than 6 tons per year per tank, they are not subject to the requirement to reduce emissions by 95%.

The following changes were made to permit R13-3041:

- * Table 1.0 was updated to include the new tanks and remove the old tanks.
- * Condition 4.1.1 was changed to update the new emission limits.
- * Condition 4.1.4 was changed to reference the new tanks and lower the permitted throughput limit to match what was used to calculate emissions.
- * Condition 4.3.5 was changed to reference the new tanks.