

RENEWABLE OPERATING PERMIT

N1794

December 5, 2016 - STAFF REPORT ADDENDUM

MI-ROP-N1794-2017

Purpose

A Staff Report dated October 3, 2016, was developed in order to set forth the applicable requirements and factual basis for the draft Renewable Operating Permit (ROP) terms and conditions as required by R 336.1214(1). The purpose of this Staff Report Addendum is to summarize any significant comments received on the draft ROP during the 30-day public comment period as described in R 336.1214(3). In addition, this addendum describes any changes to the draft ROP resulting from these pertinent comments.

General Information

Responsible Official:	Robert Butkus, General Manager 616-878-1568
AQD Contact:	Kaitlyn DeVries, Environmental Quality Analyst 616-356-0003

Summary of Pertinent Comments

Several Comments were received from EPA during the comment period. Comments were received on November 2, 2016.

EPA Comment 1: This comment addressed the Compliance Assurance Monitoring (CAM) table in the staff report.

AQD Response: Small updates were made to include additional underlying applicable requirements (UARs) and update the presumptively acceptable monitoring section. The table should read as indicated below.

Emission Unit ID	Pollutant/ Emission Limit	UAR(s)	Control Equipment	Monitoring	Presumptively Acceptable Monitoring?
FGEPS	Volatile Organic Compounds (VOCs)/ 272.4 lb./hr and 374.5 tpy	40 CFR 64.6 (c)(1)(i and ii), R 336.1220(a)(a)(i)(A) R 336.1702, R 336.2908	Regenerative Thermal Oxidizer (RTO)	Temperature	Not Applicable

The remaining comments are all for FGEPS. The comments are outlined below with the AQD response.

EPA Comment 2: FGEPS, Section II, VI.5, VI.7, and Appendix 3 require specifications for determining the VOC content of the pre-expanded beads and the subsequent compliance with the VOC and throughput limits. Please verify there are sufficient conditions to assure compliance with the VOC and EPS bead limits.

AQD Response: The VOC content of each bead was originally determined by testing the pre-expanded beads. The most recent test data obtained by the AQD indicated compliance with the limit. Subsequently,

the facility uses Certificate of Analysis data from the manufacturer. Per discussions with the facility, the Certificate of Analysis' received are per batch, and are updated in their records accordingly. Further clarification has been added to SC.V.4.

EPA Comment 3: FGEPS, SC V.4 requires the VOC content of the product as shipped, but doesn't specify how the VOC retention is calculated.

AQD Response: The VOC, or pentane, content retained in the product was verified through the most recent testing and was deemed compliant. Additionally, as outlined in FGEPS, SC II.1, the VOC retention can be calculated by dividing the VOC content of each product by the VOC content of the respective raw beads and weighting this ratio by the fraction, by weight, of the month's production. No changes were made to the draft ROP in response to this comment.

EPA Comment 4: FGEPS, SC VI.4 identifies the method for determining VOC content of the regrind. Please clarify the VOC calculation requirements for the regrind material.

AQD Response: The regrind was originally tested to establish the VOC content used in the calculations. Additional conditions were added to the ROP to test the VOC content of the regrind on an AQD approved testing schedule.

EPA Comment 5: FGEPS, Sections II, VI, and Appendix 3 require 95% destruction efficiency factor for the oxidizer be used when calculating compliance with the throughput and emission limitations. The comment asks if this default 95% is sufficient to ensure compliance.

AQD Response: The 95% destruction efficiency (DE) is the default, worst case percentage for the calculations, and the actual tested data may be used with approval of the AQD District Supervisor. Most recent stack test data from 2012 indicate that the destruction efficiency was 98%. Testing is required once per ROP cycle and will need to be conducted again within one year of ROP issuance to verify the destruction efficiency used for calculation emissions. 2008 testing indicates a DE of 96%. The testing data supports the use of the 95% as a minimum as long as test results continue to indicate compliance with the required DE. No changes were made to the draft ROP in response to this comment.

EPA Comment 6: FGEPS, SC III.5 references Appendix 3 for a corrective action plan, but the appendix does not include a corrective action plan.

AQD Response: The aforementioned Appendix 3 in this section was old template language and inadvertently not updated. This has since been updated and meets all requirements of 40 CFR 64.7(d).

EPA Comment 7: FGEPS and Appendix 3 aren't clear as to whether the compliance monitoring and calculation permit conditions associated with the VOC emission limitations take any uncaptured VOC into account.

AQD Response: Per the Best Available Control Technology (BACT) analysis for VOCs in the Permit to Install (PTI), BACT took into consideration that only the emission from the expanding machines are controlled and the emissions from the molding equipment and the emissions from the bagging process are uncontrolled. The emission calculations include the potential emission from all processes including the uncontrolled emissions. No changes were made to the draft ROP in response to this comment.

EPA Comment 8: FGEPS, SC IV.2 discusses a minimum oxidizer retention time but does not include any provisions to test compliance with the retention time.

AQD Response: Based on the manufacturer's information provided in the PTI, the retention time is set by the manufacturer; however, the retention time can be calculated ($t=V/Q$) and can be included in the testing requirements for the next stack test. No changes were made to the draft ROP in response to this comment.

Changes to the October 3, 2016 Draft ROP

As mentioned above, two additional conditions were added to FGEPS, Section V after discussions with EPA and the facility. These conditions require the regrind be tested to verify the VOC content and that the AQD be supplied an approvable sampling and/or analysis schedule and are listed below.

5. The permittee shall determine the VOC content of the regrind, or densified scrap from FGEPS. The permittee shall use sampling and analysis methods approved by the AQD District Supervisor. The results shall be submitted to the AQD District Supervisor in an acceptable format within 14 days following the receipt of analytical results. (R 336.1213(3))
6. The permittee shall conduct the required sampling outlined in SC V.4 and SC V.5 on an annual basis or on an alternate sampling schedule or analysis approved by the AQD District Supervisor. (R 336.1213(3))

In addition, a change was made to FGEPS, SC V.4 to include the requirement to determine VOC content of the pre-expanded beads as received.