

State Registration Number

B2816

## RENEWABLE OPERATING PERMIT

**AUGUST 29, 2019 - STAFF REPORT ADDENDUM**

ROP Number

MI-ROP-B2816-  
20XX

### Purpose

A Staff Report dated May 13, 2019, was developed to set forth the applicable requirements and factual basis for the draft Renewable Operating Permit (ROP) terms and conditions as required by Rule 214(1) of the administrative rules promulgated under Act 451. 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 Rule 214(3). In addition, this addendum describes any changes to the draft ROP resulting from these pertinent comments.

### General Information

|                                 |  |
|---------------------------------|--|
| Responsible Official Section 1: | Michael Twomley, Plant Manager<br>734-384-2207                 |
| Responsible Official Section 2: | Margaret Guillaumin, Plant Manager<br>313-701-3383             |
| Responsible Official Section 3: | Katherine Panczak, Vice President<br>734-302-8235              |
| AQD Contact:                    | Brian Carley, Environmental Quality Specialist<br>517-416-4631 |

### Summary of Pertinent Comments

The U.S. Environmental Protection Agency (EPA) had the following comments:

1. Staff Report, Compliance Assurance Monitoring (CAM) applicability for EU-UNIT1, EU-UNIT2, EU-UNIT3, and EU-UNIT4. The Staff Report describes several exemptions from CAM on the basis that the units are subject to the National Emission Standard for Hazardous Air Pollutants for Coal- and Oil-Fired Electric Utility Steam Generating Units (40 CFR Part 63 Subpart UUUUU) and the Title IV Acid Rain Program. In accordance with 40 CFR §64.2(b), please address the CAM non-applicability analysis for the emission limits in EU-UNIT1, EU-UNIT2, EU-UNIT3, and EU-UNIT4 (i.e., those limits not required by Subpart UUUUU and Title IV). For example, it appears that the relevant exemption may be 40 CFR §64.2(b)(1)(VI)- emission limitations for which the title V permit specifies a continuous compliance determination method.
  - AQD Response: For the SO<sub>2</sub> and NO<sub>x</sub> emission limits, they would be exempt per 40 CFR 64.2(b)(1)(iii), 40 CFR 64.2(b)(1)(iv), and 40 CFR 64.2(b)(1)(vi). DTE Monroe is required to submit all their SO<sub>2</sub> and NO<sub>x</sub> CEMS data to EPA Clean Air Markets Division (CAMD) as required by the Acid Rain (Title IV) and the emissions trading program Cross State Air Pollution Rule (CSAPR). This data is the same data that would be used to show compliance with the SO<sub>2</sub> and NO<sub>x</sub> emission limits. On the CAMD Air Market Program Data website (<https://ampd.epa.gov/ampd/>), the data is posted on-line and lists the SO<sub>2</sub> in pounds or tons, NO<sub>x</sub> in pounds, tons, and pounds per mmBtu (lb/mmBtu), operating hours, and heat input for each unit and can be shown for annual, quarterly, monthly, daily, and hourly emissions. You can see the SO<sub>2</sub> emissions in pounds per hour or dividing the SO<sub>2</sub> pounds emitted per hour by the heat input for that hour you can get the lb/mmBtu. For PM, SO<sub>2</sub>, and HCl, they would be exempt as 40 CFR Part 63 Subpart UUUUU (a.k.a. MATS) has continuous monitoring required for these pollutants in the form of CEMS. Because DTE Monroe has a wet FGD installed on each boiler, they are allowed to monitor SO<sub>2</sub> as a surrogate of HCl. According to MATS, if a facility can comply with the SO<sub>2</sub> emission limit in MATS,

then they are complying with the HCl emission limit in MATS, which is more stringent than the HCl emission limit in SC I.16 in tables EU-UNIT1, EU-UNIT2, EU-UNIT3, and EU-UNIT4.

2. FG-COALBLRCAM. The Staff Report indicates that EU-UNIT1, EU-UNIT2, EU-UNIT3, and EU-UNIT4 are subject to CAM for PM-10, lead, and hydrogen fluoride. However, FG-COALBLRCAM only includes excursion levels for PM-10 and hydrogen fluoride. Please revise FG-COALBLRCAM as necessary to include the excursion level for lead, in accordance with 40 CFR §64.6(c)(2).
  - AQD Response: Special Condition (SC) VI.3 was modified to include lead along with PM10.
3. EU-UNIT1, EU-UNIT2, EU-UNIT3, EU-UNIT4, and FG-COALBLRCAM. Although the Staff Report indicates that the PM-10, lead, and hydrogen fluoride limits in EU-UNIT1, EU-UNIT2, EU-UNIT3, and EU-UNIT4 are subject to CAM, these respective Emission Unit and Flexible Group sections of the permit do not associate these emissions limits with the CAM requirements. Please revise the permit as necessary to identify which pollutant specific emission units (i.e., PM-10, lead, and hydrogen fluoride limits for EU-UNIT1, EU-UNIT2, EU-UNIT3, and EU-UNIT4) are subject to CAM, in accordance with 40 CFR §64.2(b). For example, the Monitoring/Testing Method column in the EU emissions tables could reference the applicable CAM requirements in FG-COALBLRCAM, and/or the applicable emission limits could be directly identified in FG-COALBLRCAM.
  - AQD Response: References to specific special conditions in FG-COALBLRCAM have been inserted into the appropriate Monitoring/Testing Method column in Section 1 of EU-UNIT1, EU-UNIT2, EU-UNIT3, and EU-UNIT4.
4. EU-UNIT1, EU-UNIT2, EU-UNIT3, and EU-UNIT4. As drafted, many of the emission limitations in the table reference only performance testing provisions in the Monitoring/Testing Method column and do not identify monitoring requirements necessary to assure compliance on an ongoing basis, as required by 40 CFR 40 CFR §§70.6(a)(3) and (c)(1). Please review the Monitoring/Testing Method column in the emissions tables and update the permit as necessary to assure that the permit includes and identifies all associated monitoring requirements.
  - AQD Response: Added references to MAP have been inserted into the Monitoring/Testing Method column in Section 1 for VOC and H2SO4 in Tables EU-UNIT1, EU-UNIT2, EU-UNIT3, and EU-UNIT4. Also were added in the Monitoring/Testing Method column for lead (lb/mmBtu emission limit) and arsenic (lb/mmBtu emission limit) reference to the continuous emission monitoring requirements for PM in FGMATS. For HCl, in the Monitoring/Testing Method column, reference to the continuous emission monitoring requirements for SO2 was added. For lead, arsenic and HCl, MATS has more stringent emission limits than those in Tables EU-UNIT1, EU-UNIT2, EU-UNIT3, and EU-UNIT4 and has continuous monitoring methods for those pollutants. For lead and arsenic, PM is a surrogate and the facility uses a PM CEMS to show compliance with the MATS PM emission limit. For HCl, SO2 is a surrogate and the facility uses a SO2 CEMS to show compliance with the MATS SO2 emission limit.
5. EU-UNIT1, EU-UNIT2, EU-UNIT3, and EU-UNIT4, sections I.2. The particulate matter Monitoring/Testing Method in each of these sections incorrectly refers to SC VI.3. Please revise the citation to refer to SC VI.2., the particulate matter continuous emission monitoring provisions.
  - AQD Response: The requested change was done.
6. EU-CRUSHERHS. The unit description in the draft permit states: "The dust collectors (DC05) in this area have been decommissioned." Additionally, this section of the permit includes some limits which apply after a dust collector has been recommissioned, and other limits which apply until a dust collector has been recommissioned. In the Staff Report, please clarify the status of the dust collectors, relative to the applicable emission limit requirements in the permit.
  - AQD Response: In PTI No. 93-09 and carried over into PTI Nos. 93-09A, 93-09-B, 63-11, 27-13, 27-13A, 27-13B, and 27-13C (the most current PTI that is being incorporated into this ROP) the dust collectors for this unit were permitted with PM limits once the new dust controls were installed. Since then, DTE has

decommissioned the existing dust collectors and are now controlling PM emissions by using enclosures, wet sprays, and/or dust suppressants in lieu of the dust collectors. So, they are still required to comply with the PM emission limit that they were subject to per their ROP prior to PTI No. 93-09. If they ever recommission their current dust collectors or install new dust collectors, these devices would be subject to the PM emission limit in PTI No. 27-13C as they would, either way, be considered new dust collectors.

## Section 2 DTE Electric Company – Monroe Peakers

7. FG-PEAKERS –What ongoing monitoring method to determine compliance was being used or if there none what is the justification.
  - AQD response: These engines are classified as limited use stationary RICE (i.e. they operate less than 100 hours/year) with SC III.1 limiting the operations to 99.9 hours. DTE's NOx limit of 90.2 pph was based on the PTE for each diesel generator (or maximum, which technically can't be exceeded). The emission limit was calculated using design fuel burning rate, a default fuel heat content and EPA's AP-42 NOx emission factor for large diesel internal combustion engines (uncontrolled). This emission limit is the worst case scenario and limiting each generator to 99.9 hours/year also allows it to meet the NOx NAAQS. Will add SC III.1 and SC VI.2 to Monitoring/Testing Method to ensure that they meet that requirement.

## Section 3 Monroe Fuels Company, LLC

8. EU-REFHS&BL – EPA asked why there was no performance testing required and if there was a way based on the configuration of the activities and why the emission limits included test protocol language in the PTI.
  - AQD response: Since the control devices are not large enough to be stack tested without considerable difficulty, DTE has requested the Time Period/Operating Scenario in Section I be changed from "Test protocol will specify averaging time" to "Daily". Since the Monitoring/Testing Method is based on following the MAP and daily non-certified opacity observations, AQD has agreed with this request.

DTE Energy Company had the following comments:

1. Appendix 9-1 Acid Rain Permit – The NOx averaging plan is outdated and the newest plan, effective January 1, 2019, needs to be incorporated.
  - AQD response – the new NOx Averaging Plan has been incorporated into the Acid Rain Permit in Appendix 9-1 and in the Acid Rain Permit No. MI-AR-1733-20XX that is going through the public comment period at the same time as ROP No. MI-ROP-B2816-20XX.
2. AQD 5 year Test Language – DTE has not agreed with AQD Jackson District Office regarding this time frame of when stack tests should occur and are meeting with Chris Ethridge, AQD, Field Operations Supervisor through MMA on this language.
  - AQD response – Until we hear otherwise from Chris Ethridge, the language currently in the permit will stay.
3. CAM Monitoring Condition Language: The CAM section indicates a PM CAM, but there is only the need for a lead and hydrogen fluoride CAM plans. DTE submitted and AQD accepted CAM plans in October 2018. The plan defined DTE's CAM excursion indicator, including the use of 30-boiler operating day averaging (which is accordance to CAM rules). DTE has already configured the CEMS DAHS to monitor the CAM pollutants using that averaging period.
  - AQD response: The source description for FG-COALBLRCAM did not properly reflect what the table covered and has been updated. For a pollutant that a facility is using a presumptively acceptable monitoring (PAM), in this case PM10, lead, and HF, CAM still applies, and the CAM template language and conditions still need be added to the ROP table. Having a limit that defines an excursion with an emission limit from one table and a less stringent timeframe from another table is not acceptable and the emission limit that defines the excursion will remain unchanged. The requested change has been denied.
4. DTE requested that the CAM language in SC VI.1 and VI.3 be combined into one SC and in SC VI.2 and VI.4 be combined into one SC.

- AQD response: The request to combine the CAM language into one condition for the PM10 and lead and into one condition for the HF was approved.
5. DTE noted that in the source description in the staff report it was stated that they had sulfur trioxide (SO<sub>3</sub>) and ammonia flue gas conditioning systems as two of the controls that were installed on each of the four boilers. These two controls had been removed as they became obsolete once the SCR and FGD were installed on each of the four boilers.
- AQD response: AQD agrees that it should not have been included in the source description. The description has been revised to reflect the current pollution control equipment at the Monroe Power Plant.

## **Changes to the May 13, 2019 Draft ROP**

### Changes per EPA comments

#### Section 1

- In FG-COALBLRCAM, SC VI.3 was modified to include lead along with PM10.
- References to specific special conditions in FG-COALBLRCAM have been inserted into the appropriate Monitoring/Testing Method column in Section 1 of EU-UNIT1, EU-UNIT2, EU-UNIT3, and EU-UNIT4.
- In EU-UNIT1, EU-UNIT2, EU-UNIT3, and EU-UNIT4, SC I.2 - Monitoring/Testing Method, the citation was changed from SC VI.3 to SC VI.2.
- In EU-UNIT1, EU-UNIT2, EU-UNIT3, and EU-UNIT4, SC I.11 and I.12 - Monitoring/Testing Method, SC III.1 was added.
- In EU-UNIT1, EU-UNIT2, EU-UNIT3, and EU-UNIT4, SC I.13 and I.20 - Monitoring/Testing Method, references to FGMATS SC VI.3 was added.
- In EU-UNIT1, EU-UNIT2, EU-UNIT3, and EU-UNIT4, SC I.16 - Monitoring/Testing Method, references to FGMATS SC VI.5 was added.

#### Section 2

- FG-PEAKERS - Added SC III.1 to Monitoring/Testing Method in Section 1 for NOx emission limit.

#### Section 3

- EU- REFHS&BL – Changed the Time Period/Operating Scenario in Section I for the PM, PM10, and PM2.5 emission limits be changed from “Test protocol will specify averaging time” to “Daily”

### Changes per DTE comments

#### Section 1

- Changing the 40 CFR 60.4205(b) to 40 CFR 60.4205(c) as a UAR to SC III.2 in FG-WFGD-QP1&2 and FG-WFGD-QP1&2
- Adding 40 CFR 63.6590(c)(7) as a UAR to SC IX.2 in FG-WFGD-QP1&2 and FG-WFGD-QP1&2
- Updated the source description in FG-COALBLRCAM to specify the pollutants subject to CAM per PAM
- In FG-COALBLRCAM, combined SC VI.1 and VI.3 combined into SC VI.1 and in SC VI.2 and VI.4 combined into SC VI.2
- Changed the Acid Rain Permit by replacing the NOx Averaging Plan in the permit with the updated NOx Averaging Plan
- Changed the NOx alternative emission limit and the year this limit went into effect in the NOx limit portion of the tables for each unit in the Acid Rain Permit

### Staff Report

- The Responsible Official for Section 2 has been changed to Margaret Guillaumin
- The list of pollution control equipment of the four boilers in the source description was modified to remove obsolete pollution control equipment (SO<sub>3</sub> and ammonia flue gas conditioning system)