

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Scheduled Inspection

B870447273

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|---|-----------------------------------|---------------------------|
| FACILITY: Michigan Turkey Producers Co-Op Inc. | | SRN / ID: B8704 |
| LOCATION: 2140 CHICAGO DR, WYOMING | | DISTRICT: Grand Rapids |
| CITY: WYOMING | | COUNTY: KENT |
| CONTACT: Christi Fox, Security Facility Manager | | ACTIVITY DATE: 12/14/2018 |
| STAFF: Adam Shaffer | COMPLIANCE STATUS: Non Compliance | SOURCE CLASS: SM OPT OUT |
| SUBJECT: Scheduled unannounced inspection. | | |
| RESOLVED COMPLAINTS: | | |

Air Quality Division (AQD) staff Adam Shaffer (AS) arrived at the Michigan Turkey Producers CO-OP, Inc. (MT) facility located in Wyoming, MI at 9:34am on December 14, 2018 to complete a scheduled unannounced inspection. The weather conditions at the time of the inspection were cloudy, mid 30's °F and winds from the northeast at 0-5mph. Prior to entering the facility offsite odors and visible emission readings were completed. A slight manure odor was identified to the southwest of the site. The odor was brief in nature with no recent complaints received from surrounding areas. All emissions observed appeared to be steam.

Facility Description

MT is a turkey slaughter and piecing operation. The turkeys are shipped onsite to be processed before being sold in pieces offsite. The site is a synthetic minor of hazardous air pollutants (HAPs), nitrogen oxides (NO_x), and carbon monoxide (CO). MT is in operation with one Opt Out Permit to Install (PTI) No. 89-14. Additionally, MT is currently under Consent Order No. 59-2014.

Offsite Compliance Review

- The facility is in operation with five emergency generators that are subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Reciprocating Internal Combustion Engines. One engine is also subject to New Source Performance Standards (NSPS) for Stationary Spark Ignition Internal Combustion Engines. Additional information regarding these standards will be discussed further below. Based on the status of the site, MT must report to Michigan Air Emissions Reporting System (MAERS). Due to the timing of the inspection, the 2018 MAERS Report has not been submitted at this time. As part of the FCE, the 2017 MAERS Report was reviewed. Upon review, it appears that the incorrect number of emergency hours was used in calculating emissions, however, the emissions difference was minor. Moving forward, MT shall make sure to utilize the correct hours of engine operation when calculating emissions for future MAERS Reports. The 2017 MAERS Report was concluded to be acceptable.

Compliance Evaluation

Upon entering the site, AQD staff AS initially met with Mr. Mike Hart, Vice President of Engineering and Maintenance. Throughout the course of the inspection, AQD staff also met Ms. Christi Fox, Security Manager, and Mr. Steve Young, Facilities/Maintenance Manager.

Opt Out PTI No. 8914

EUENGINE5

This emission unit is for an EPA certified Cummins natural gas fired reciprocating internal combustion engine driving a generator for producing electricity in the event of an emergency. Additionally, this emission unit is subject to NSPS Subpart JJJJ and NESHAP Subpart ZZZZ.

This emission unit is subject to several emission limits which are listed below.

| Pollutant | Limit | Time Period / Operating Scenario |
|-----------------|-----------|----------------------------------|
| NO _x | 2 g/hp-hr | Test Protocol* |
| CO | 4 g/hp-hr | Test Protocol* |
| VOC | 1 g/hp-hr | Test Protocol* |

*Test Protocol shall determine the averaging time.

A certificate of conformity was requested for ENENGINE5 and provided by MT staff. MT staff stated that no changes have occurred to the engine on site. The emission limits are met as long as satisfactory operation and maintenance of the engine is completed. Maintenance records for EUENGINE5 were requested and provided since October 2017. Overall, the maintenance records appear to be acceptable. It appears that EUENGINE5 is operating in a satisfactory manner and per the manufacturer's instructions.

EUENGINE5 was observed during the course of the site inspection. MT staff stated that the engine only burns natural gas. The nameplate capacity observed was 150 kW (60 Hz). A non-resettable hour's meter was observed on the engine at the time of the inspection that read 174.1 hours. Monthly and 12-month rolling total hours of operation for EUENGINE5 were requested and reviewed since January 2016. Per Special Condition (SC) III.2, MT shall not operate EUENGINE5 for more than 10 hours per day and no more than 500 hours per year based on a 12-month rolling total as determined at the end of each calendar month. Reviewing the records provided, MT operated EUENGINE5 for more than 10 hours per day on 04/20/17, 04/21/17, and 07/07/17. This is a violation of PTI No. 89-14, EUENGINE5, SC.III.2 and Consent Order No. 59-2014, Paragraph 9.A. Errors were identified between recorded hours and hours stated by MT staff, however, after review, it appears that there are no additional dates where engine hour limits were exceeded. MT provided dates and total hours for when EUENGINE5 was operating under emergency situations with the remaining hours of operation appearing to be for preventative maintenance and auto-run as programmed. After further review, this was concluded to be acceptable.

Based on the records reviewed and observations made, it appears that EUENGINE5 is in compliance with NSPS Subpart JJJJ and the NESHAP Subpart ZZZZ applicable requirements.

FGFACILITY

This is for all process equipment source-wide including equipment covered by other permits, grand-fathered equipment and exempt equipment.

FGFACILITY is subject to several emission limits listed below:

| Pollutant | Limit | Time Period |
|-----------------|--------------------|------------------------------|
| NO _x | Less than 90.tpy | 12-month rolling time period |
| CO | Less than 90 tpy | 12-month rolling time period |
| Individual HAP | Less than 9 tpy | 12-month rolling time period |
| Aggregate HAPs | Less than 22.5 tpy | 12-month rolling time period |

Monthly and 12-month rolling total emission records for NO_x, CO, individual and aggregate HAPs were requested at the time of the inspection. Initially, it appeared after speaking with MT staff that emission records received from the companies consulting firm were not calculating emissions since approximately April/May 2016. Following the inspection, MT staff stated that they had been looking for the incorrect information and the requested records were provided. Upon review, it was determined that the records were incomplete from at least January 2018 through October 2018 due to MT waiting for additional information from their electrical company. This is a violation of PTI No. 89-14, FGFACILITY, SC.VI.4-5 and Consent Order No. 59-2014, Paragraphs 9.A-B.

- The most recent complete records appear to be December 2017. For the month of December 2017, approximately 0.46 tons of carbon monoxide (CO) emissions was emitted and the 12-month rolling total of CO for December 2017 was approximately 4.62 tons per year (tpy), which is well within the permitted limit. Previous 12-month rolling totals were reviewed and also well within the permitted limit.
- For December 2017, approximately 0.55 tons of NO_x was emitted, and the 12-month rolling total of NO_x as of December 2017 was approximately 5.42 tpy, which is well within the permitted limit. Previous 12-month rolling totals were reviewed and also well within the permitted limit.
- The highest individual HAP emitted is hexane. For the month of December 2017, approximately 0.01 tons of HAPs were emitted and the 12-month rolling total of hexane as of December 2017 was approximately 0.1 tpy, which is well within the permitted limit. Previous 12-month rolling totals were also well within the permitted limits.
- In the previous inspection it was recommended that MT add a column to their spreadsheet that automatically totals the aggregate HAPs. This has not been completed. Adding up the aggregate HAPs by hand, in December 2017, approximately 0.01 tons of aggregate HAPs were emitted and the 12-month

rolling total as of December 2017 was approximately 0.103 tpy, which is well within the permitted limit. Previous 12-month rolling totals were also well within permitted limits. Moving forward MT shall have aggregate HAP records in a more acceptable format.

During the inspection, MT staff stated that no changes have occurred to the engines on site. Per SC.III.1, each engine for FGFACILITY shall not operate more than 10 hours per day or more than 500 hours per 12-month rolling total calculated at the end of each month. Monthly and 12-month rolling total engine hours were requested and provided. Reviewing the records provided, MT operated EUENGINE5 for more than 10 hours per day on 04/20/17, 04/21/17, and 07/07/17. This is a violation of PTI No. 89-14, FGFACILITY, SC.III.1 and Consent Order No. 59-2014, Paragraph 9.A. Errors were identified in the reported hours and stated hours by MT staff, however, it appears that no additional events occurred where the engines operated more than 10 hours per day and all engines were within the 500 hours per year limit.

During the course of the inspection, non-resettable hour meters were observed for all five engines onsite. Hours read at the time of the inspection are as follows:

| Engine | Hours |
|-----------|-------|
| EUENGINE1 | 4.2 |
| EUENGINE2 | 13.1 |
| EUENGINE3 | 4.2 |
| EUENGINE4 | 8.2 |
| EUENGINE5 | 174.1 |

MT provided dates and total hours for when all engines were operating under emergency situations, with the remaining hours recorded being used for preventative maintenance and/or auto run as programmed. It was concluded that MT overall appears to be keeping track of monthly/12-month rolling total hours when each engine was in operation during emergency and non-emergency situations, the times of operation and reason for the engine to be in operation.

The five stacks associated with FGFACILITY were observed during the course of the inspection. Though the dimensions were not measured, they appeared to be consistent with what is stated in PTI No. 89-14.

Per SC.IX.1, the permittee shall comply with all provisions of the NESHAP Subpart ZZZZ. After review, MT appears to be in compliance with the NESHAP Subpart ZZZZ.

Additional Observations

- During the course of the inspection step by step processing of turkeys received was observed.
- One wash area was observed where used containers are washed. Copies of safety data sheets (SDS) for the three materials used were requested and provided. MT staff stated that the only materials used in this part of the process are the SDS provided materials and hot water. The room is vented externally. Upon review of the SDS provided, one material (WC-340 Cleaner) contains 2-Butoxyethanol, which is a VOC. A potentially applicable exemption was requested, but not provided by MT.
- The maintenance area was observed during the inspection with various items such as a drill press and saw being noted. The equipment observed appears to be exempt per Rule 285(2)(l)(vi)(B).
- One natural gas fired hot water boiler was observed during the course of the inspection that was constructed in 1994, installed in 2012 and is 0.89 MMBtu/hr in size. Based on the size of the boiler, it appears to be exempt per Rule 282(2)(b)(i). Additionally, based on the size, the boiler is not subject to NSPS Subpart Dc.
- The smaller structure located in the southeast portions of the site is used for storage of items such as spare parts.

Conclusion

Based on the facility walkthrough, observations made, and records reviewed, MT is not in compliance with PTI No. 89-14 and Consent Order No. 59-2014. A Violation Notice (VN) will be issued for the following violations:

- Records reviewed show that on 04/20/17, 04/21/17 and 07/07/17, MT operated EUENGINE5 more than 10 hours per day. This is a violation of PTI No. 89-14, EUENGINE5, SC.III.2, FGFACILITY, SC.III.1 and Consent Order No. 59-2014, Paragraph 9.A.

- Monthly and 12-month rolling emission total records for NO_x, CO and individual/aggregate HAPs were incomplete from at least January - October 2018. This is a violation of PTI No. 89-14, FGFACILITY, SC.VI.4-5 and Consent Order No. 59-2014, Paragraphs 9.A-B.

NAME adam J. Shaff

DATE 01/11/19

SUPERVISOR 