

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: On-site Inspection

B870473582

FACILITY: Michigan Turkey Producers Co-Op Inc.		SRN / ID: B8704
LOCATION: 2140 CHICAGO DR, WYOMING		DISTRICT: Grand Rapids
CITY: WYOMING		COUNTY: KENT
CONTACT: MaryAnne McCaffrey, VP of Human Resources		ACTIVITY DATE: 08/27/2024
STAFF: April Lazzaro	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Unannounced, self-initiated inspection.		
RESOLVED COMPLAINTS: C-24-01577, C-24-01671		

Staff, April Lazzaro arrived at the facility to conduct an unannounced, self-initiated inspection and met with MaryAnne McCaffrey, VP of Human Resources. Upon arrival in the vicinity of the facility, no visible emissions, other than water vapor, or odors were identified.

FACILITY DESCRIPTION

This Michigan Turkey Producers facility is a turkey slaughter and piecing operation. The turkeys come in and are processed for sale in pieces. Much of the turkey processed here goes to the Michigan Turkey Producers facility located at 1100 Hall Street SW, Grand Rapids, MI. Previously, this facility had a Permit to Install No 89-14 for five emergency engines, as well as an Administrative Consent Order AQD 59-2014 (ACO). Following the disconnection of Engines 1-4, the permit was voided on June 10, 2019. Following the completion of the requirements of the ACO, it was terminated on January 12, 2023, at the company's request. The facility still operates Engine 5, which is subject to 40 CFR Part 63 Subpart ZZZZ and 40 CFR Part 60 Subpart JJJJ and is further discussed below. The space formerly used to house Engines 1-4 now houses a KEMKO water heating system, that will be further discussed below.

The reason for the unannounced, self-initiated inspection is due to the receipt of six odor complaints from three different nearby residents who have experienced what is described as nauseating slaughter operations odors. The AQD learned that the facility had installed a waste-water treatment system called a dissolved air flotation (DAF) which became operational in early 2024, to pre-treat their water prior to sending it to the Wyoming Clean Water plant. The residents who called regarding odors believe the waste-water treatment system to be the cause of the odors, as the problem began following the installation of the system. AQD did experience mild odors during one compliant investigation, however the intensity of the odors did not meet the criteria to be considered a violation at that time.

COMPLIANCE EVALUATION

Upon arriving at the facility, I met with Ms. McCaffery, and provided background on the purpose and reason for the inspection. We were joined by Warren C. Beseler, Plant Manager and Leroy Lozada, Refrigeration/Facilities Manager who were also provided background and the reason for the inspection. Mr. Beseler and Mr. Lozada provided a tour of the facility and the air quality related operations.

Engine 5 is a Cummins Model GGLB-3938917, 225 horsepower (1.98 MMBTU/hr 150 kW), natural gas fired reciprocating engine for emergency use only. The serial number is A120290106. We observed Engine 5, and the non-resettable hours meter read 340.7 hours. Records related to the operation and maintenance of the unit were

requested and reviewed. The information provided indicates that the usage of the engine has been for readiness/reliability or for emergency uses only.

The facility conducts most of the maintenance in house and provided those records. It is recommended that Michigan Turkey ensure that the maintenance being conducted is specific to the manufacturer's recommendations, however a review of the information does not appear as though changes to the settings have been made. The monthly preventative maintenance activities appear to meet the limited requirements of Subpart ZZZZ and Subpart JJJJ.

Michigan Turkey stated during the inspection that there have been no upgrades to the ammonia cooling system used at the facility.

Additional information was requested on the equipment associated with the KEMCO gas fired direct contact water heater(s). The facility operates two 15.0 MMBTU/hr, natural gas fired direct contact water heaters. The heated water is used for facility-wide service water heating, process water and sanitation water purposes. Each heater is equipped with a low NOx burner, with a nozzle-mix type burner fitted with a specially designed combustion chamber, guaranteed to produce less than 30 parts per million of NOx when operated properly. This use appears to be considered service water heating, and likely meets the Rule 282(2)(b) permit exemption, however it is recommended that the company conduct an exemption analysis pursuant to Rule 278a.

Additional information was requested for the DAF system. A DAF is a liquid/solid separation system designed to remove solids from wastewater. The DAF system at Michigan Turkey consists of a 655,000 equalization tank, a flocculator, sludge pump and 36,000 gallon sludge storage tank and multi-disc screw press. Both tanks are constructed from epoxy coated bolted steel. After the water is pressed out of the solids, a screw press moves the solids into an offal trailer that is contained in a structure, until it is full and a service comes to exchange the full offal trailer for an empty one. The offal trailers are emptied 2-3 times per day, during operation. The DAF system itself is equipped with panel filters that utilize activated carbon adsorbent to address odors generated from the separation tank. These filters are replaced in accordance with the maintenance schedule, which is believed to be on a monthly basis. The filter replacement is done at a higher frequency than recommended by the filter manufacturer so that no breakthrough of odors can occur from those areas.

While the inspection was ongoing, we observed the removal of an offal trailer. The odors experienced at that time were nauseating and nearly overpowering, causing staff to want to leave the area immediately. We did stay to watch as the trailer was pulled out and an employee shoveled up any excess offal from the floor to dispose of. The employee did not wear respiratory protection during that activity.

As we observed the offal trailer removal, Mr. Beseler expressed that Michigan Turkey will take additional voluntary measures to control odors from the process.

This statement was confirmed by Michigan Turkey as within a week, they had hired an odor consulting firm, and had an odor reduction survey completed. The odor reduction strategy includes installing a peroxide applicator system to the offal in the sludge holding tank, screw press and sludge bin area. Michigan Turkey provided an

approved purchase order for implementation of the treatment system, and confirmation that the order has been placed to install the pump and obtain the chemicals needed to start treating the odors.

The DAF system appears exempt from permitting pursuant to Rule 285(2)(m), however it is recommended that the company conduct an exemption analysis pursuant to Rule 278a.

During the inspection, AQD staff asked if they were cleaning out the inside of the turkey transport trailers in the parking lot. They indicated that they wash and sanitize the trailers, but that the water is captured and sent to the DAF system for treatment.

Michigan Turkey conducts container sanitization/washing, which had been evaluated during a previous inspection and determined that no air contaminants were generated during the process. A new cleaning solution is being used, and the Safety Data Sheet was requested and reviewed. The material being used is non-volatile and soluble in water and is not expected to become an air contaminant.

SUMMARY

Michigan Turkey Producers was in compliance at the time of the inspection.

NAME

April Lazzaro

DATE 09/17/2024

SUPERVISOR

