

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

M191328037

FACILITY: Lapeer Grain East		SRN / ID: M1913
LOCATION: 155 S SAGINAW, LAPEER		DISTRICT: Lansing
CITY: LAPEER		COUNTY: LAPEER
CONTACT: Steve Jarvis , Fertilizer Plant Manager		ACTIVITY DATE: 12/15/2014
STAFF: Daniel McGeen	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Unannounced, scheduled inspection of grain elevator and fertilizer plant.		
RESOLVED COMPLAINTS:		

On 12/15/2014, the Department of Environmental Quality (DEQ), Air Quality Division (AQD) conducted an unannounced, scheduled inspection of Lapeer Grain East.

Facility contact:

Steve Jarvis, Fertilizer Plant Manager; 810-664-2907; fax: 810-664-1419

Facility description:

Grain elevator and fertilizer plant

Emission units:

Quantity	Emission unit description	Permit to install, or relevant exemption rule	Applicable federal regulations	Operating status, at time of inspection
2	Tower grain dryers, with hole size less than 0.094"	285(p)	NA	Not operating
1	Grain receiving pit	285(p)	NA	Not operating
1	Railroad car loading	285(p)	NA	Not operating
1	Truck loading	285(p)	NA	Compliance
Various	Grain storage bins	285(p)	NA	Compliance
1	Furnace, natural gas-fired	282(b)	NA	Compliance
1	Anhydrous ammonia storage tank, 18,000 gallons	Permit to Install No. 333-80	NA	Compliance

Regulatory overview:

This facility is classified as a minor source for criteria air pollutants in general, although no specific criteria pollutant was identified in the Regulatory Summary screen in the Michigan Air Compliance Enforcement System (MACES) database. Given the size of this grain elevator (see discussion on Subpart DD, below), it does not likely have the Potential to Emit (PTE) to be a major source for particulate matter smaller than 10 microns in diameter (PM-10), or particulate matter smaller than 2.5 microns in diameter (PM2.5). I therefore flagged it as a true minor for particulate matter (PM) in MACES. It is also classified as an area source, rather than a major source, for Hazardous Air Pollutants.

This facility is not considered subject to 40 CFR Part 60, Subpart DD, the Standards for Performance for Grain Elevators. As indicated in a 1/13/2010 inspection activity report by AQD's Kenneth Terry, total permanent storage capacity is approximately 400,000 bushels. A grain elevator with a total permanent storage capacity of 2.5 million bushels would be classified as a *grain terminal elevator*, subject to DD. The U.S. EPA Jim Seitz memo of 11/14/1995 uses a 14 million bushel throughput facility as an example for calculating PTE, and estimates a PTE of 50 TPY for PM-10. It is therefore very unlikely that a 400,000 bushel facility would have a large enough PTE for PM-10 to be a major source.

There is no feed mill at this site. Therefore, this facility is not considered subject to 40 CFR Part 63, Subpart DDDDDDD, the National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Area Sources: Prepared Feeds Manufacturing, which applies to feed mills adding chromium and manganese to feed mixtures.

The facility has one existing air permit, Permit to Install (PTI) No. 333-80, for an anhydrous ammonia storage tank.

The grain drying and handling operations appear to be exempt from the requirement of Rule 201 to obtain a permit to install. Rule 285(p) exempts:

(p) Commercial equipment used for grain unloading, handling, cleaning, storing, loading, or drying in a column dryer that has a column plate perforation of not more than 0.094 inch or a rack dryer in which exhaust gases pass through a screen filter no coarser than 50 mesh.

Rule 310 of the Michigan Air Pollution Control Rules limits visible emissions from air emissions sources to 20% opacity, averaged over a 6-minute average, except for one 6-minute average per hour not to exceed 27% opacity. The 20% opacity limit is applicable to the Rule 285(p) exempt processes at the site.

Fee Status:

This facility is not considered fee-subject, for the following reasons. Because it is not a major source for criteria pollutants, it is not classified as Category I. Additionally, because it is not a major source for Hazardous Air Pollutants (HAPs), and is not subject to federal New Source Performance Standards, it is not classified as Category II. Finally, because it is not subject to federal Maximum Achievable Control Technology standards, it is not classified as Category III. The facility is not required to submit an annual air emissions report via the Michigan Air Emissions Reporting System (MAERS).

Location:

The facility is located within the city of Lapeer, and is adjacent to commercial or light industrial facilities. Residences appear to be located about 300 feet to the southwest, and 400 feet to the southeast.

Recent history:

The most recent previous inspection by AQD, conducted 1/13/2010, found no compliance issues. The only complaint for this facility found in AQD files was a reference to a 9/19/1993 Pollution Emergency Alert System (PEAS) call, on an ammonia release.

Arrival:

I detected a very faint grain odor just north of the facility. I arrived at the site, at 11:35 AM. Wind was out of the south southwest at the time. I met with Mr. Steve Jarvis, Fertilizer Plant Manager. I provided him with a copy of the DEQ brochure *Environmental Inspections: Rights and Responsibilities*, per AQD procedure. He indicated that he would have more time available to meet with me in the afternoon, so I agreed to come back around 1 or 2 PM.

After other field work, I returned at 1:48 PM, and met with Mr. Jarvis. He explained that the Michigan Department of Agriculture and Rural Development (MDARD) has prohibited them from receiving any grain, since the end of this October. I inquired as to why, and he explained that this action was related to the company's financial matters. He felt it highly likely that the facility will shut down completely, and that Lapeer Grain East will cease to exist, as an entity.

Inspection:

I was informed that no new equipment has been installed, since the AQD 1/13/2010 inspection. We walked out onto the site. Mr. Jarvis indicated the grain that was stored onsite had already been dried. They will load it out, but they are not receiving any additional grain, per our conversation earlier on MDARD.

Mr. Jarvis gave a rough estimate of their grain throughput for the 2014 season as:

- Wheat: 100,000 bushels, 10% or less dried in the grain dryers
- Beans: 300,000 bushels, approx. 25% dried
- Corn: 600,000, approx. 75% dried

I did not see any grain handling activity at the site, today. There were no visible emissions of any dust, and no signs that I could see of any grain dust on the ground.

The fertilizer portion of this facility is still operating, Mr. Jarvis informed me.

Anhydrous ammonia tank, 18,000 gallon capacity; PTI No. 333-80:

The 18,000 gallon anhydrous ammonia storage tank was located near a number of nurse and applicator tanks. Their customers use the ammonia in spring and early summer, I was informed.

I went through each special condition of the ammonia tank permit, and Mr. Jarvis indicated that they were taking the required steps. Selected highlights are discussed below:

Special Condition (SC) no. 15 requires a remotely actuated, mechanically operated, positive shut-off valve to be installed on the main storage tank liquid lines to regulate the flow of liquid release. Mr. Jarvis indicated these are installed at each end of the tank.

SC no. 16 requires all containers (the ammonia storage tank) to have excess flow valves and back pressure check valves. Mr. Jarvis indicated that this tank is equipped with these.

Mr. Jarvis indicated piping is at least Schedule 80, that brass, copper, galvanized steel pipe or tubing is not used, cast iron fittings are not used, and that piping has provisions for expansion and contraction. These are ANSI requirements, which are incorporated as SC no. 22. a. through d.

SC no. 23. e. requires hoses are to be replaced 5 years after date of manufacture, or sooner, if needed. Mr. Jarvis indicated hoses are replaced as required, according to the date of manufacture.

SC no. 29 prohibits the addition of any nitrogen stabilizers to any permanent storage tank or to rail or truck transport tanks. Mr. Jarvis indicated they do not add nitrogen stabilizers to these kinds of tanks.

Mr. Jarvis showed me the water they keep for safety purposes (in the event personnel need to rinse off ammonia, following an exposure). As required by SC no. 30 of the permit, this is a separate supply of water from the safety water.

The main storage tank, nurse and applicator tanks are illuminated by a yard light at night, as required by SC No. 34, Mr. Jarvis indicated.

SC no. 36 requires prior to each season, the permittee to review with the local fire department the procedures to be followed in the event of an emergency. I was informed that they do this each year.

SC no. 38 requires signs to be conspicuously placed providing emergency contact phone numbers. I did not check for this during the inspection, but called the facility afterwards, to inquire. Mr. Jarvis indicated that they have a sign(s) in place.

SC no. 39 requires minimum emergency rescue equipment shall be maintained in good condition at the site and personnel are trained in its use. Mr. Jarvis indicated that they have a basic level of safety equipment, and their employees are trained in its use.

Conclusion:

I left the site at 2:15 PM. The facility appeared to be in compliance with the anhydrous ammonia tank permit, and with the Air Pollution Control Rules. Mr. Jarvis was very helpful and professional. The future operating status of this facility and the company are very uncertain, as Mr. Jarvis explained to me, today.

NAME [Signature]

DATE 1/5/2015

SUPERVISOR [Signature]