

Mason Elevator Co. North
2 SRNs
wanite
Ingham

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Self Initiated Inspection

P066431855

FACILITY: Mason Elevator Company (MECO)-North		SRN / ID: P0664
LOCATION: 600 Curtis Street, MASON		DISTRICT: Lansing
CITY: MASON		COUNTY: INGHAM
CONTACT: Russell McCalla , Co-owner		ACTIVITY DATE: 10/19/2015
STAFF: Daniel McGeen	COMPLIANCE STATUS: Compliance	SOURCE CLASS: Minor
SUBJECT: Unannounced, self-initiated inspection.		
RESOLVED COMPLAINTS:		

On 10/19/2015, the Department of Environmental Quality (DEQ), Air Quality Division (AQD), conducted an unannounced, self-initiated inspection of the Mason Elevator Company (MECO) north site, which they sometimes refer to as their "jail" site, due to its proximity to the Ingham County Jail.

Facility environmental contact:

Russell McCalla, Co-Owner; 517-676-1016; erin_meco@asiserve.net

Facility description:

This facility is primarily engaged in the handling, drying, and storage of grain.

Emission units:

Emission units; at 600 Curtis St., unless noted	Permit to Operate (PTO) or exemption rule	Applicable federal rule	Operating status
Kan-Sun grain dryer	PTO No. 379-75	NA	Compliance
3 grain storage bins and associated loading and unloading equipment	PTO No. 205-82	NA	Compliance
At N. Lansing St. site: Behlen grain storage bin and associated loading and unloading equipment	PTO No. 769-81; is incorrectly identified in PTO as being at Curtis St. site	NA	Not operating, may be used in future
2 flat storage buildings and aeration equipment	Rule 285(p)	NA	Compliance

Regulatory overview:

The MECO north site is the northernmost of three grain elevator facilities within Mason. Additionally, there is a small tank farm in Mason, and a grain elevator in the nearby town of Leslie. For many years, the three Mason grain elevators shared the State Registration Number (SRN) B1644. However, from past AQD inspections, they appear to be separate stationary sources, and will be treated as such. Air Pollution Control Rule 119(r) defines a Stationary Source as those installations at contiguous or adjacent properties. The south and central facilities are two blocks away from each other, while the third/north site is several blocks to the north, at the intersection of Curtis Street and Zimmerman Boulevard. The north facility has recently been assigned its own SRN, P0664.

The three Mason and the Leslie MECO facilities are not considered a *grain terminal elevator(s)* subject to 40 CFR Part 60, Subpart DD, the Standards for Performance for Grain Elevators. In order to be subject, a facility would need to have 2.5 million bushels of permanent grain storage on site. As indicated on a previous occasion by MECO staff, their four sites combined have only 1.86 million bushels of storage. The facilities are considered *grain elevators* under the NSPS, but not *grain storage elevators*. By definition, a grain storage elevator is *any grain elevator located at any wheat flour mill, wet corn mill, dry corn mill (human consumption), rice mill, or soybean oil extraction plant which has a permanent grain storage capacity of 35,200 m³ (ca. 1 million bushels)*. The MECO facilities in Mason are not flour, corn, or rice mills, nor soybean oil extraction plants.

The Mason and Leslie MECO facilities are 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, because they do not add either chromium or manganese to their animal feed mixtures.

The north MECO facility is considered a true minor source. A major source has the potential to emit (PTE) of 100 tons per year (TPY) or more, of one of the criteria pollutants. Criteria pollutants are those for which a National Ambient Air Quality Standard exists, and include carbon monoxide, nitrogen oxides, sulfur dioxide, volatile organic compounds, lead, particulate matter smaller than 10 microns, and particulate matter smaller than 2.5 microns. It is considered a minor or "area source" for Hazardous Air Pollutants (HAPs), because it is not considered to have a PTE of 10 TPY or more for a single HAP, nor to have a PTE of 25 TPY or more for combined HAPs.

The north MECO facility has grain drying and handling equipment, some of which is covered by vintage permits to operate (PTOs), and some of which falls under the Rule 285(p) exemption from the requirement to obtain a permit to install. This exemption did not yet exist, at the time the PTOs were approved.

Rule 285(p) exempts the following:

(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.

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).

Recent history:

AQD has no record of any complaints having ever been received about the north MECO site. On 10/15/2015, AQD had visited the MECO north site, to talk with Mr. Russell McCalla, Co-Owner, about one of their other sites. I then saw a truck deliver a dusty load of corn to the north site's grain receiving pit, which is uncontrolled. Between the high dust content of the particular load of corn, and the windy conditions that day, substantial fugitive dust was generated. I had to return to the office at that time, and was unable to stay long enough to conduct visible emission readings on the fugitive dust. It is unknown if this particular truck delivery would have been able to comply with the 20% opacity limit of Michigan Air Pollution Control Rule 301. It was determined that an inspection of this facility would be necessary, to determine compliance status with the 20% visible emission limit.

Arrival:

Today, 10/19/2015, I stopped at the office for the main/south site, and was informed that Mr. McCalla was at the north site. I drove to the north site, and met with Mr. McCalla. I explained that I would like to conduct an inspection of the north site, and gave Mr. McCalla a copy of the DEQ brochure *Environmental Inspections: Rights and Responsibilities*, per AQD procedures. He indicated I was welcome to observe and photograph their activities, as much as I needed.

Inspection:

Kan-Sun grain dryer, PTO No. 379-75:

The correct spelling of the grain dryer is actually *Kan-Sun*, I observed, rather than the *Kan-San* which appears on the PTO. The grain dryer was running at this time, and I observed 0% opacity.

3 grain storage bins and associated loading and unloading equipment; PTO No. 205-82:

This permit is associated with two 60' wide by 70' tall grain bins, a 48' wide by 70' tall grain bin, and loading, unloading, and aeration equipment. All three bins are vertical in design. The unloading equipment includes a grain receiving pit. The receiving pit is located out of doors, with no enclosure. It is located in between the southernmost flat storage building at the site, and the three large vertical grain bins. It is my understanding that the receiving pit has no air handling system to collect dust or beeswings.

I observed two very clean loads of corn being delivered to the grain receiving pit by truck. Mr. McCalla explained that with high quality corn, there is very little dust. He informed me that the quality of the corn has been exceptional, this year.

Photo 1 shows unloading of the first truck load of corn, from gates at the rear of the truck bed. Opacity was estimated by me at 0 to 5%. The second photo shows an alternate view of the same truck unloading. Scattered beeswings are visible against the cab of the truck, in the background. However, the dust and beeswings from this delivery would be well below the 20% opacity limit, over a 6-minute average.

The third photo shows a second truck delivering corn. This truck unloaded from the underside of the trailer. This method appears to have a lower potential to generate dust, compared with unloading from the back of a truck or trailer. Opacity was generally close to 0%, and would not have exceeded 5%, over a 6-minute average.

Weather conditions were sunny and 63 degrees F, with winds out of the southwest, gusting up to 25-30 miles per hour (mph). Attached weather data for the day, recorded at Mason's Jewett field Airport, indicates wind gusts of 25-29 mph this afternoon. Because of the low dust content of the corn, there were no problems with fugitive dust that I could see, at this time. However, loads of grain with a high dust content would have the potential to generate fugitive dust.

I did not see any visible emissions from the elevator legs or the vertical grain storage bins.

Behlen grain storage bin and associated loading and unloading equipment, PTO No. 769-81:

The Behlen grain storage bin and associated equipment are identified in the PTO as being at "Curtice Street, off Cedar Street." However, I have been informed that this is incorrect, and they are actually located at the idle MECO site at N. Lansing Street, in Mason. The company has informed me that they may wish to use this equipment again in the future, so the permit will not be voided. The PTO application identifies the equipment as a Behlen 27' by 42' eave tank, with capacity of 20,000 bushels, to be used for soybeans.

Conclusion:

I did not observe any instances of noncompliance. The corn which I saw being unloaded into the grain receiving pit today was of high quality, and have a very low dust content. Even with wind gusts of 25-30 mph today, fugitive dust from truck delivery of corn was well below the 20% opacity limit of Rule 301.

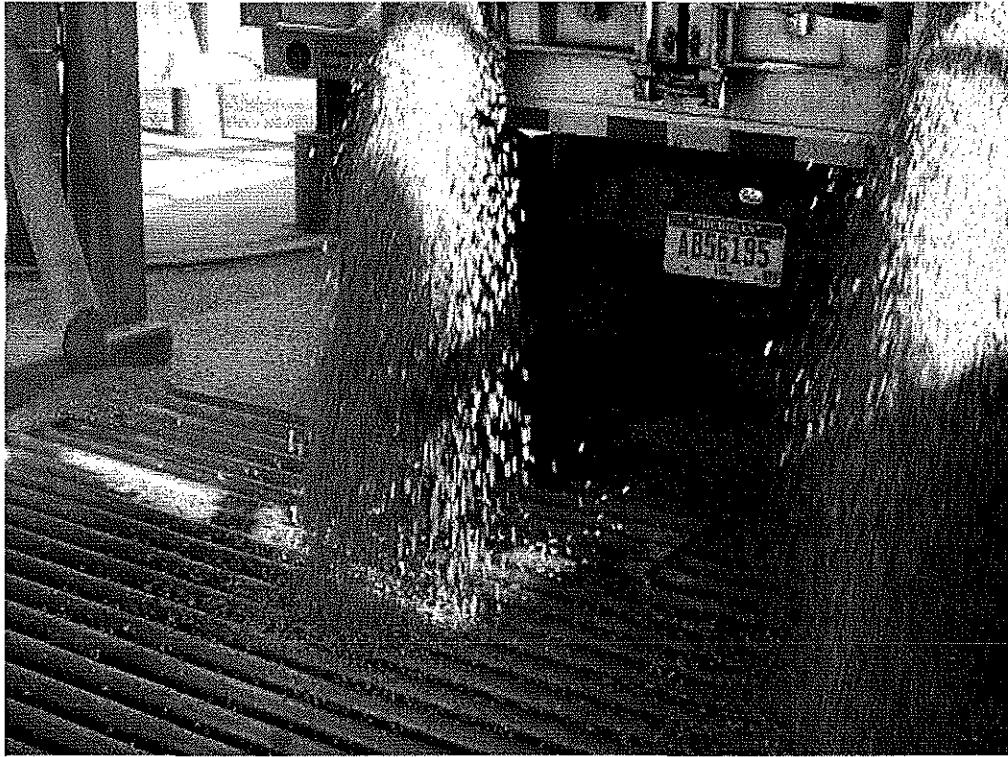


Image 1(Photo 1) : Corn being unloaded into receiving pit.

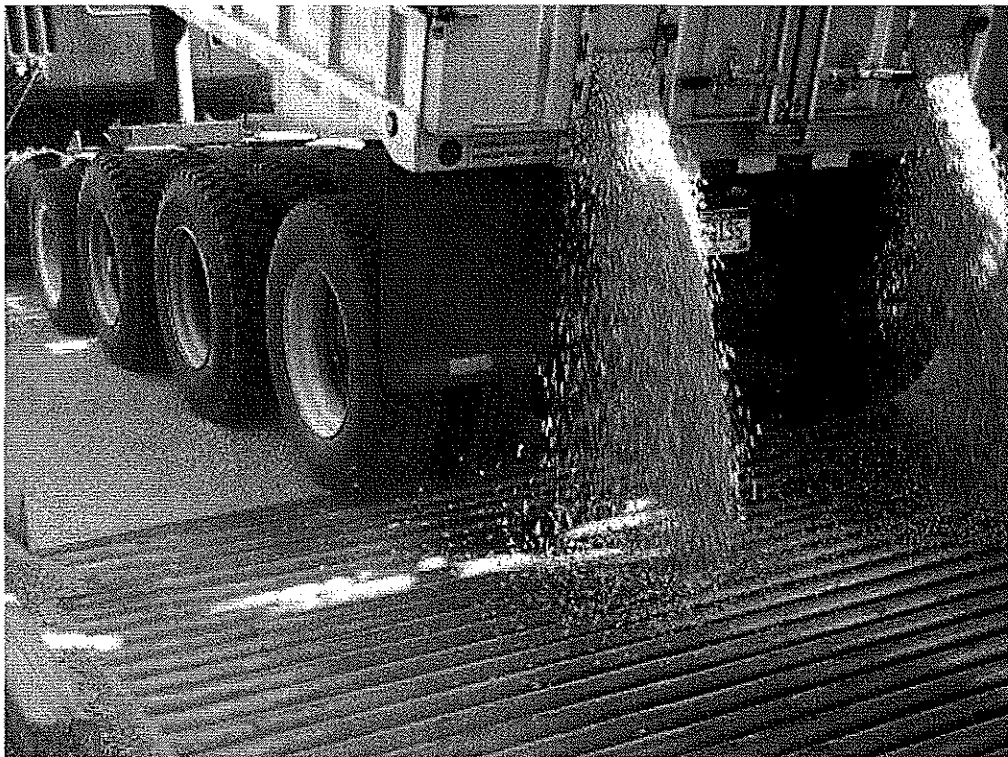


Image 2(Photo 2) : Light amount of beeswings visible, against cab of truck.

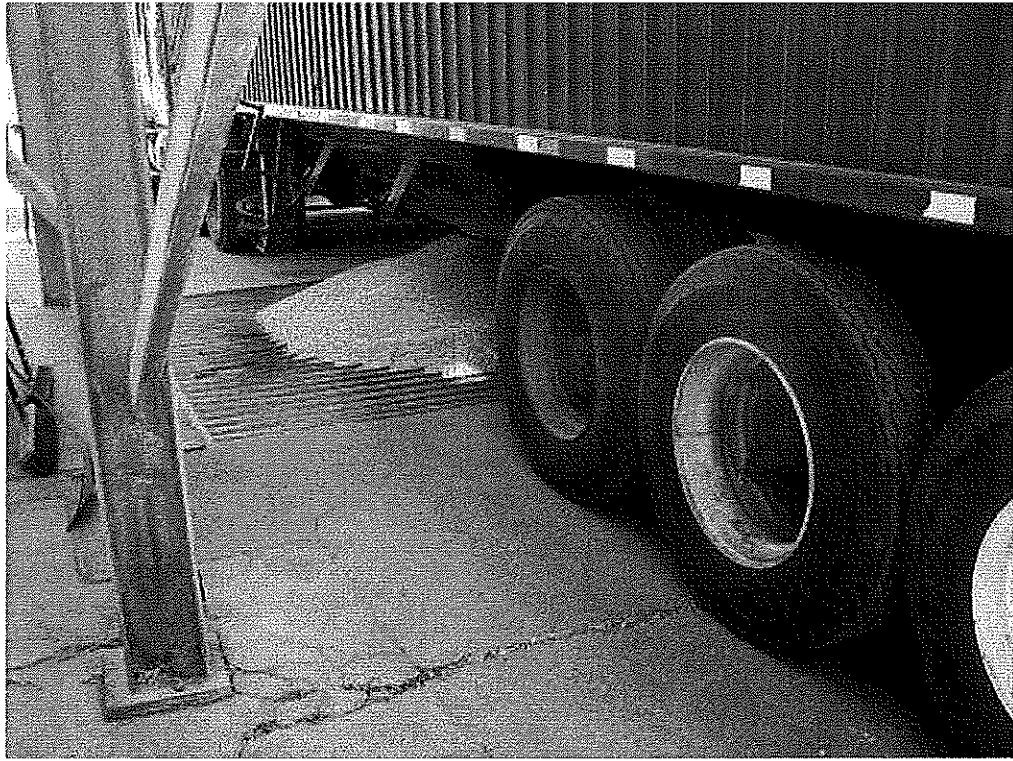


Image 3(Photo 3) : Corn being unloaded from underside of trailer.

NAME *[Signature]*

DATE 11/3/2015

SUPERVISOR *B.M.*

