

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

B164427980

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|---|-------------------------------|---------------------------|
| FACILITY: MASON ELEVATOR CO | | SRN / ID: B1644 |
| LOCATION: 104 S LANSING ST, MASON | | DISTRICT: Lansing |
| CITY: MASON | | COUNTY: INGHAM |
| CONTACT: Russell McCalla , Co-owner | | ACTIVITY DATE: 12/09/2014 |
| STAFF: Daniel McGeen | COMPLIANCE STATUS: Compliance | SOURCE CLASS: MINOR |
| SUBJECT: Self-initiated inspection, conducted to follow up on a complaint from the previous day regarding fallout of beeswings. | | |
| RESOLVED COMPLAINTS: | | |

On 12/9/2014, the Department of Environmental Quality (DEQ), Air Quality Division (AQD), conducted an inspection of the Mason Elevator Company (MECO) in Mason. This inspection was conducted following a complaint received on 12/8 reporting large amounts of beeswings from the grain elevator on 12/4.

Facility environmental contact:

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

Facility description:

This facility is primarily engaged in the selling of grain, but also does some preparation of animal feed. It has three sites within the City of Mason.

Emission units:

| Emission unit | Permit to Operate (PTO) or exemption rule | Location | Operating status |
|--|---|---------------------------------|--------------------------|
| 2 Kan-San grain dryers | PTO No. 380-75 | W. Columbia St. and Lansing St. | Compliance/not operating |
| Kan-San grain dryer | PTO No. 77-79 | W. Columbia St. and Lansing St. | Compliance/not operating |
| Grain bin | PTO No. 204-82 | W. Columbia St. and Lansing St. | Compliance |
| Grain handling equipment | Rule 285(p) | W. Columbia St. and Lansing St. | Compliance/not operating |
| Feed handling, milling, mixing, and packaging equipment; some grandfathered. | Rule 285(p) | W. Columbia St. and Lansing St. | Compliance |
| Fertilizer storage building | Rule 284(k) | W. Columbia St. and Lansing St. | Compliance |
| Kan-San grain dryer | PTO No. 379-75 | Zimmerman Blvd. and Curtis St. | Compliance/not operating |
| Bin and associated loading and unloading equipment | PTO No. 769-81 | Zimmerman Blvd. and Curtis St. | Compliance |
| 3 bins and associated loading and unloading equipment | PTO 205-82 | Zimmerman Blvd. and Curtis St. | Compliance |

Location:

MECO has three facilities within Mason, and one facility in Leslie. The three Mason facilities share the State Registration Number (SRN) B1644. However, from my observations today, and those of AQD's Brian Culham, in his 11/3/2010 inspection report, they appear to be separate stationary sources. 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 is several blocks to the north, on Zimmerman Blvd. The offices, agricultural supply retail store, prepared feeds manufacturing, dry fertilizer storage, grain storage, and grain handling operation comprise the south facility, which is the main part of the operation. It is located at the intersection of W. Columbia Street and N. Lansing Street. The middle facility, two blocks north, is no longer in use, and may be demolished in the future. The third facility, on Zimmerman Blvd., is used for grain storage and handling.

Regulatory overview:

12/18/2014

The Mason MECO facilities and the Leslie MECO facility are classified as true minor sources for criteria pollutants, because it is considered very unlikely that they would have the Potential to Emit 100 tons per year or more of a criteria pollutant. Criteria pollutants include volatile organic compounds, carbon monoxide, nitrogen oxides, sulfur dioxide, lead, particulate matter smaller than 10 microns, and particulate matter smaller than 2.5 microns. Please refer to B. Culham's 11/3/2010 inspection report for further details, which includes discussion of the 11/14/1995 Jim Sietz Memo from the U.S. Environmental Protection Agency on Calculating Potential to Emit for Grain Handling Facilities. The MECO facilities also do not appear to be considered a major source for Hazardous Air Pollutants (HAPs), meaning they are an area source for HAPs. A major source of criteria pollutants or HAPs would be required to obtain a Renewable Operating Permit.

The three Mason and the Leslie MECO facilities are not considered 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 by MECO staff, their four sites combined have only 1.86 million bushels of storage.

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.

The Mason MECO sites have 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:

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:

On 12/4/2014, Mason Police Department Code Enforcement Officer James Duthie had called AQD's B. Culham to advise that we might receive a complaint in the near future of dust (beeswings) from handling corn at the southernmost of the three MECO facilities in Mason. A citizen who lives near the facility had complained to the police about heavy fallout of beeswings. On 12/4, the AQD had driven by the site, and observed substantial fallout of beeswings which had taken place along the curb and sidewalk adjacent to W. Columbia Street, on the edge of the facility's property. AQD determined that an inspection would be needed, to follow up.

On 12/8, Officer Duthie contacted the AQD, to advise that he saw a large amount of dust/beeswings on 12/4, blocking storm drains, along with leaves, and that he had spoken with company representatives on 12/4 and 12/5. He found them to be cooperative, and that they were in the process of cleaning up the beeswings. Later on 12/8, AQD received the actual fallout complaint, from a private firm representing the complainant. I explained that an inspection would be conducted in the very near future. This was the first complaint AQD has received on the Mason MECO facilities since the year 2000. Arrival:

Today, 12/9, I drove to a location a block south of MECO's southern Mason site. I could hear equipment running, but could not see any opacity or fugitive dust from the grain handling equipment, grain bins, or yard areas (see attached photo). At 12:15 PM, weather conditions were cloudy and 39 degrees F, with

wind out of the north at 5-10 miles per hour.

I arrived at the office of the south facility at 12:50 PM. I explained the reason for my visit, and I was informed that Co-Owner Russell McCalla would arrive in about 15 minutes. While waiting, I walked along the city sidewalks near the grain elevator, to check for fallout of beeswings. There were no beeswings or other dust particles airborne, at this time. However, there was substantial evidence of beeswings on the facility's property, next to Columbia Street (see attached photo). Beeswings had been removed from the street itself, however, which was a definite improvement from 12/4. The worst fallout was on grain elevator property. Beeswings were present in lesser quantities on the north side of W. Columbia St. (see attached photo). Houses on the north side of W. Columbia Street had beeswings mixed with leaves in their yards. Recent snows, now mostly melted, had matted down the beeswings to the extent that no particulates were stirred up by the wind. The yard of one house looked to have been cleaned of beeswings, possibly by a leaf blower.

Next to the feed mix building, a MECO truck was being loaded from an overhead spout. The distance between the top of the truck and the end of the spout was 12-18 inches, and there were no visible emissions from this activity.

Soon, Mr. McCalla arrived, and I explained the reason for my visit. I provided him with a copy of the DEQ brochure *Environmental Inspections: Rights and Responsibilities*, per AQD procedure.

Inspection:

1.) Main/southernmost site, 104 S. Lansing Street:

We began by inspecting the main/southern Mason site. We started out by going to the source of the recent dust episode. I was shown a dust collector or "dust recovery system," as they refer to it, on the west side of their "flat storage" building. This collector is on the east side of the railroad tracks, and south of Columbia Street (see attached photo). Mr. McCalla explained that an unusual situation took place, and the collection bin for this dust collector accidentally overflowed last week, releasing a large quantity of beeswings. He explained that winds were out of the south that day, and blew the beeswings onto the street, and properties to the north. He explained that their employees did work to clean up the beeswings, and removed them from the street, with leaf blowers. I advised that future dust complaints and instances of fallout would likely lead to a nuisance violation, and that attention to detail is important, for good housekeeping practices. Mr. McCalla said that their employees are very good about cleaning up the site, at the end of each work day. I was informed that the collection bin is usually emptied once per week, or about 5-6 times during the season.

The dust collector in question serves two elevator legs. The legs are associated with two grain dryers, and a vertical storage bin. The grain dryers were not running right now, and no grain was being handled in the elevator legs. There were no visible emissions from any process. Mr. McCalla mentioned that yesterday was pretty much the last day they would have a lot of business from grain being brought in, except for isolated instances. Now, it is much more likely that they will be shipping grain out.

Mr. McCalla showed me the truck receiving pit. There were no trucks unloading grain today, while I was onsite. The season is mostly over, now, but they may receive occasional shipments of grain, for a while.

There is a second dust recovery system onsite, also featuring a cyclone control device, which serves an elevator leg associated with 5 grain storage bins. These bins hold 160,000 bushels apiece. Grain is being stored in the bins right now, but there was no throughput currently being handled via the elevator leg.

I did not observe any visible emissions from the grain dryers, vertical storage bins, or the flat storage building. The permits to operate, and Rule 310, limit opacity from visible emissions to 20%, over a 6-minute average, not to exceed 27% for more than one 6-minute average per hour. Opacity was 0%, at the time of the inspection.

Mr. McCalla showed me the inside of their feed mill. I asked if any chromium or manganese were added

to their animal feed mixtures. An employee, Sonny, explained that they do not add either of these materials to their feeds. Therefore, they are not subject to 40 CFR 63, Subpart DDDDDDD, the NESHAP for Area Sources: Prepared Feeds Manufacturing.

They have a bulk fertilizer storage building, which provides a covered/sheltered overhang, on the east wall, for a small mixer/blender for dry fertilizer ingredients.

2.) Central site, S. Lansing Street:

The central MECO site is two blocks north of the main site (please see attached photo). They appear to be no air use permits associated with this site. Mr. McCalla explained that the equipment here is not in use, and the facility may be torn down in the future. I informed Mr. McCalla of the requirement of the asbestos NESHAP (40 CFR 61, Subpart M) to submit a Notification of Intent to Renovate/Demolish 10 days prior to the beginning of the demolition, including certification by a trained contractor as to whether any asbestos containing material is found at the site, and if so, that it has been properly removed. He indicated that there is no asbestos at that site. I recommended he call me in advance of any upcoming demolition, so we could make sure the reporting requirement is met.

They have a small liquid fertilizer and fuel storage tank farm a block north of the second site. There is a concrete containment system in the event of a tank rupture. They do not have an anhydrous ammonia tank onsite. I could not see any visible emissions from any of the tanks.

3.) Northernmost site, Zimmerman Blvd. and Curtis Street:

The third MECO site in Mason is along Zimmerman Blvd., just past the intersection with Curtis Street. There is a receiving pit for truck unloading, a dust collection system, a grain dryer (PTO No. 379-95), vertical storage bins (PTO Nos. 769-81 and 205-82), and two flat storage buildings. Mr. McCalla showed me the aeration tubes within one of the two flat storage buildings, and explained their importance in maintaining good storage conditions for the grain, as outside temperatures fluctuate. The vertical bins also have aeration equipment.

No trucks were delivering grain at the time of the inspection. However, at the end of the inspection, when I went back to obtain a photo of the site (attached), at 2:13 PM, I saw a truck being loaded with grain from a portable screw conveyor, which appeared to be connected to the 60 by 70 foot vertical grain storage bin at the left side of the picture. The free fall distance for the grain was 4 to 5 feet, and there were no visible emissions of fugitive dust. I did not see any violations of the permitted 20% opacity limit for PTO Nos. 379-75 or 205-82 or the permitted 5% opacity limit for PTO No. 769-81.

Conclusion:

Overall, the three Mason MECO sites appeared to be in compliance with their air use permits, and with the Michigan Air Pollution Control Rules. The incident which led to the recent complaint appears to have been an isolated incident, to the best of my knowledge. I advised the company of the importance of following good housekeeping practices, and Mr. McCalla explained to me that their employees make a regular practice to clean up around the elevators, at the end of each day. He was very professional, and very cooperative. AQD will follow up on future complaints, as time and resources allow.

Mason Police Department Code Enforcement Officer James Duthie (517-676-2458, ext. 321) requested a written summary of my report be sent to: MP_duthie@ingham.org, for their files. I e-mailed him a written summary on 12/16.



Image 1(MECO main site) : The main MECO site in Mason, seen from the south.

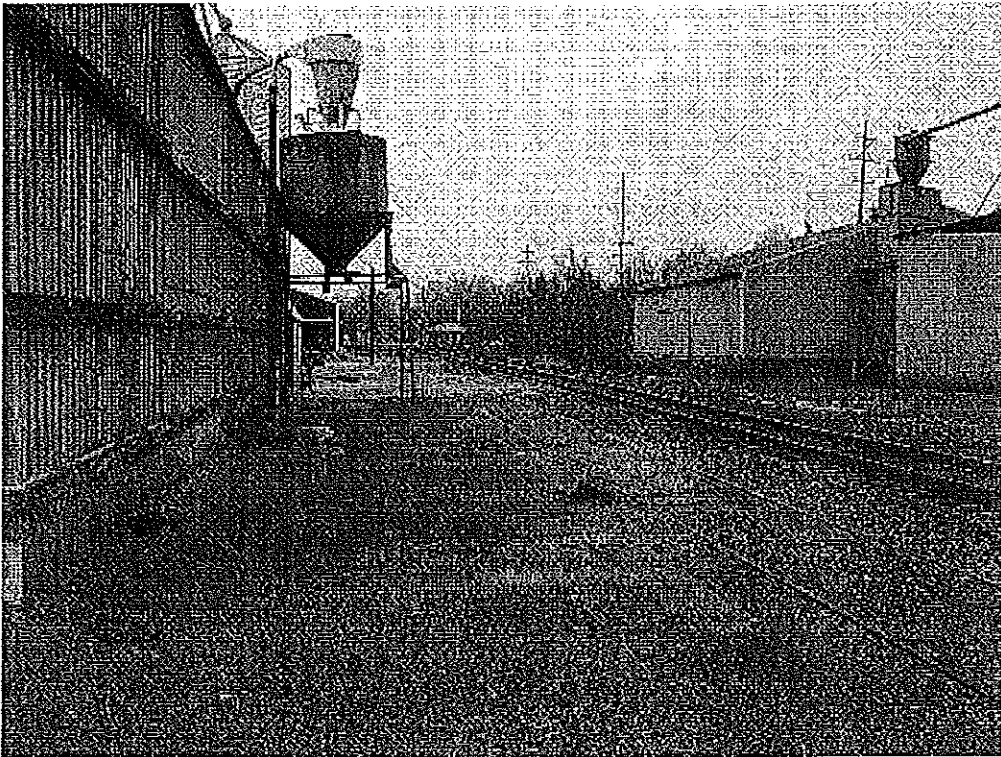


Image 2(Dust collector) : Cyclone dust collector and collection bin which had overflowed the previous week.
Note beeswings in foreground.

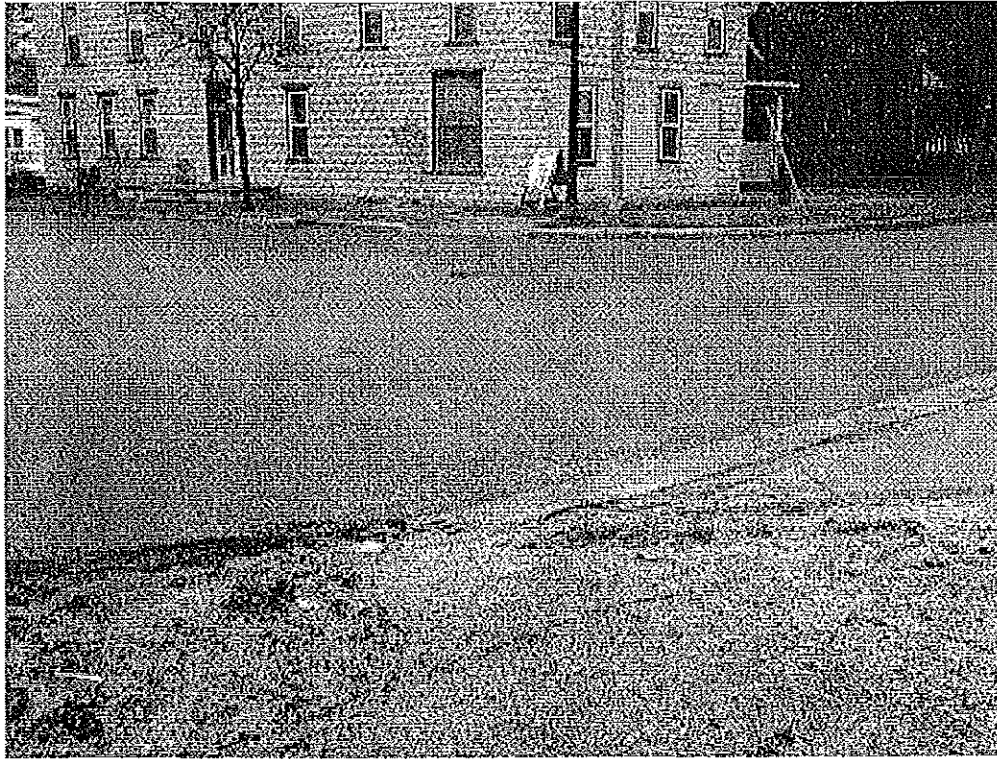


Image 3(W. Columbia St.) : Looking NE.. Beeswings in foreground are on MECO site.

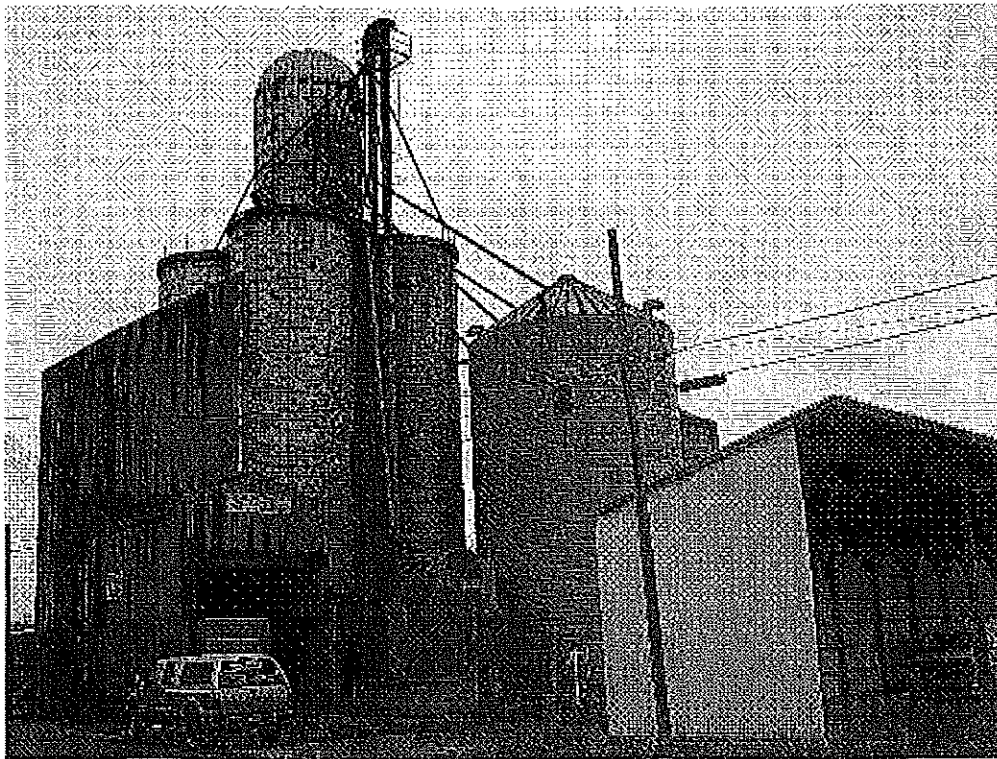


Image 4(MECO central site) : MECO's central site, two blocks north of main site. This view is taken from N.

Lansing Street.

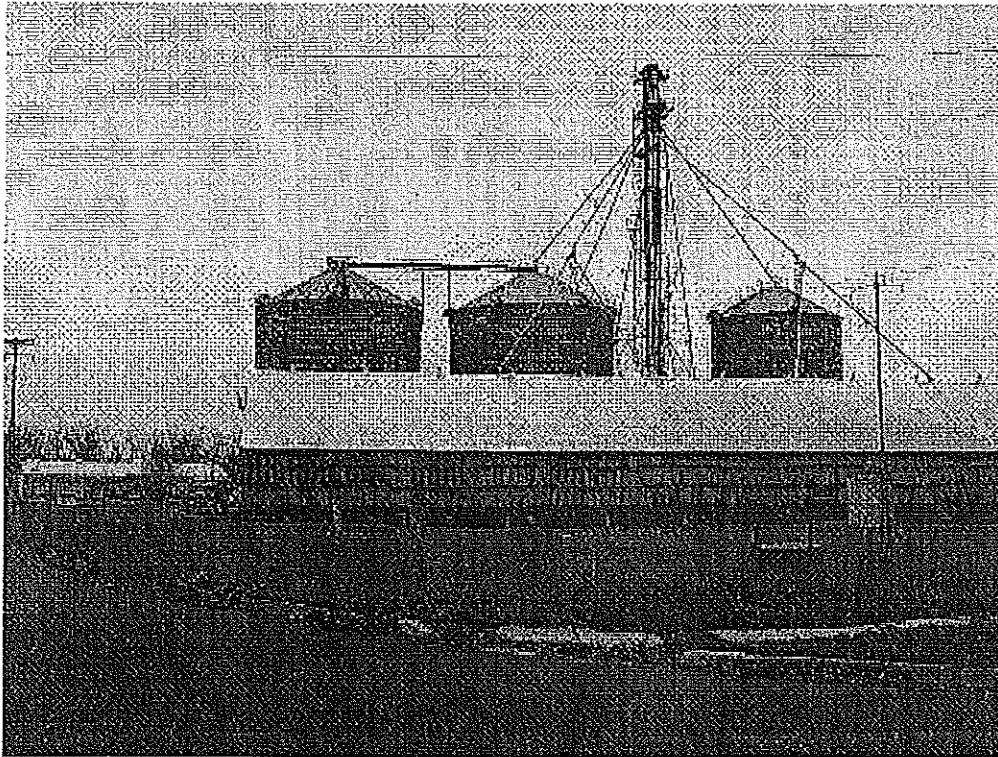


Image 5(MECO north site) : MECO's north site, on Zimmerman Blvd. A truck is being loaded with grain from a screw conveyor, and there are no visible emissions.

NAME [Signature]
[Signature]

DATE 12/18/2014

SUPERVISOR [Signature]