

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

B431141586

FACILITY: ADM GRAIN CO - Ottawa Lake		SRN / ID: B4311
LOCATION: 6801 E US 223, OTTAWA LAKE		DISTRICT: Jackson
CITY: OTTAWA LAKE		COUNTY: MONROE
CONTACT: Matthew Little , Superintendent		ACTIVITY DATE: 09/21/2017
STAFF: Diane Kavanaugh-Vetort	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Conducted complete scheduled inspection, unannounced. NSPS Cat II Grain Terminal Elevator facility. Ottawa Lake has been operating as a true minor source of PM10. Existing PTI's are NOT synthetic minor Opt-Out.		
RESOLVED COMPLAINTS:		

Matthew Little, ADM - Ottawa Lake, Superintendent, little.matthew@adm.com

Miles Anderson, ADM – Ag Services, Environmental Specialist Camanche Terminal (563)259-4116 - Work, Anderson.Miles@adm.com

On September 21, 2017 I conducted a complete scheduled compliance inspection unannounced at the ADM, Ottawa Lake facility. The purpose of the inspection was to determine the facility compliance status with applicable state and federal requirements, in particular Act 451, Part 55, Air Pollution Control regulations, the administrative rules, and the conditions of ADM's existing Air Use Permits to Install Nos. 323-93, 41-77, 223-74.

ADM is known to be the largest grain elevator in Michigan and is subject to the federal 40 CFR Part 60, Subpart DD Standards of Performance for Grain Elevators. They are currently in the AQD MAERS system as a minor, Cat II Fee subject source based on the NSPS. Prior to the inspection I reviewed ADM's 2016 MAERS. ADM reported Facility Emissions PM10 = 27 tons, PM2.5 = 4.5 tons. Natural Gas Grain Dryers reported 18.883 MMCF natural gas throughput; with Fuel burning emissions of: CO = 0.79 tons; NOx = 0.94 tons.

Throughputs are reported in Tons by various EU, unloading (receiving) from Trucks and Railcars, loading (shipping) into Trucks and Railcars, internal handling (head house). Lesser amounts are put through Grain Dryers and Grain Cleaning (internal vibrating).

For 2016:

378,658 tons receipts

398,439 tons shipped out

1,135,968 tons handled

10,357 tons cleaned

151,192 tons Grain Dryer

I requested that Matthew submit an updated Facility wide Potential to Emit (PTE) of PM10 for the Grain Elevator based on the maximum annual throughput of grain. AQD files contain numerous historical correspondence related to ADM having added grain storage capacity at different times over the years. ADM proposed some changes as qualifying for the Rule 201 requirement for an Permit to Install pursuant to exemption Rule 278 and Rule 285(p). The most recent PTE demonstration was in 2012. Miranda Girard, ADM Environmental, sent me an email with the PTE estimate indicating PM10 of 61.67 tons per year. Therefore it appears ADM is a true minor source however any future additional added capacity needs to be evaluated for applicability under Rule 210 (Title V) and Rule 201. Both State and Federal guidance documents exist for Grain Elevators related to PTE and permitting.

Upon my arrival to the site I observed the current driveway and site conditions were partially wet, i.e.

some muddy areas and puddles. I observed only 2-3 trucks enter and exit during the inspection and it did appear that fugitive dust was minimal. During the inspection Superintendent, Matthew Little informed me that he has a Calcium Chloride application scheduled for tomorrow. It is applied to the entire driveway and all around the site silos, yard. They anticipate an increase in truck traffic due to grain coming in the next few weeks (Sept/Oct prime Fall months). They plan ahead but also depends on weather. He said yesterday the area had a heavy rain in the morning.

Upon my arrival I parked at the office and entered, provided identification, and stated the purpose of the inspection. I requested to meet with Perry Cox, prior Superintendent. I was told that Perry is no longer with the company and I was introduced to his replacement, Matthew Little. We conducted a pre-inspection meeting. We discussed the ADM Ottawa Lake Air Use Permits to Install (PTI) and I went over what records are required to be maintained by the facility and that I would be requesting certain records as needed to determine ADM's compliance status. During prior inspections I requested and was given a diagram (Attached to this Report). This represents the physical walk through of the site.

One change since prior inspection in 2012: AQD received a letter from ADM dated March 18, 2014 indicating proposed installation of a new *truck load-out spout and a new Dust Suppressant Hopper (DSH)* for dust control, under Rule 201 permit exemption Rule 285(p). ADM contact, Miranda Gerard, Environmental Specialist, (217) 754-3308, stated she also reviewed Rule 278. The grain goes directly into a truck and the new spout with DSH is an improvement to normal truck load-out designs. A brochure for this Manufacturer is attached to this report to file. The letter stated the spout equipment is subject to NSPS Subpart DD and would require Visible Emissions testing. Follow up on this with ADM environmental staff changed this determination. The current environmental contact Miles Anderson sent a revised applicability determination, per my request, based on their determination that the spout is exempt under Subpart DD as a modification and did not require VE testing.

FACILITY INSPECTION:

ADM Ottawa Lake has the following existing PTI s:

PTI No. 323-93 Grain Dryer, natural gas, is required to have less than 0.094 inch column plate perforations. Per Matthew this dryer has not been changed and was previously determined to be of indicated size. The Dryer was not operating during the inspection. Matthew said they recently emptied it and it has not run since he's been there, approximately 1 month. He said they will run it soon with the new grain receipts expected. Grain Dryers are NSPS Subpart DD subject.

ADM operates a second Column Grain Dryer, natural gas, that was apparently installed in 1998 under Rule 201 Permit exemption, and is also subject to the NSPS Subpart DD.

PTI No. 41-77 Dust Collector on grain handling (C-HOUSE) located in the back. Special Conditions limit particulate matter to .01 lbs per 1000 lbs of exhaust gas; Visible emissions (opacity) to 20% Rule 301 standard; and Rule 910 requires properly installed and operating filter collector. I could hear that the blower was running but there was no loading/unloading operation occurring during the inspection.

PTI No. 223-74 Dust Collector on grain handling (A- HOUSE) located in the front near the offices. Special Conditions limit particulate matter to .01 lbs per 1000 lbs of exhaust gas; Visible emissions (opacity) to 20% Rule 301 standard; and Rule 910 requires properly installed and operating filter collector. ADM replaced this collector in @ February, 2014 with a brand new larger collector under Rule 201 Permit exemption Rule 285(d). The original unit was undersized and had significant maintenance issues and had been observed to have visible emissions periodically. The new collector is CAMCORP Model HVP (high volume pulse) and was performance tested pursuant to the NSPS Subpart DD. During today's inspection I observed the end of one truck dump/unload at this station. No visible emissions were observed.

I asked Matthew about their monitoring and preventative maintenance of the dust collector air pollution control units on the grain handling. He said that the Maintenance Supervisor conducts regular maintenance checks and they do operate Magnehelix gauges on the units and record pressure drops daily. I had previously seen that ADM has an electronic record keeping system including monthly,

quarterly, and annual maintenance. I requested Matthew email me the electronic records for the past 12 month period ending August 2017 by September 28, 2017. These records were received following the inspection and are attached to this report to file. There were some minor typographical /format issues and I requested these be corrected. Compliant.

The A-HOUSE Dust Collector controls both the A and B Houses (this is how ADM refers to the grain silos and truck load out stations). The C-HOUSE Collector is for the C House silos. It is possible to observe the A-HOUSE Dust Collector when arriving at the office and I observed it later during the walk-through inspection. This Collector is located on top of a truck drive through structure for unloading grain located between the Office and the A-HOUSE concrete Grain Silos. I observed the C-HOUSE collector during the walk-through inspection, located behind the C-HOUSE silos. No Visible Emissions were observed from either collector.

Matthew answered my questions regarding the status of the facility operations. ADM currently employs about 15, and operates two shifts, 7 am to 9 pm, 7 days/week in the Fall. There was a note on the office door that September 25th is Wheat cut off and new crop will be coming in. ADM handles Corn, Wheat, and Soybeans.

During the 2012 inspection the Superintendent said the ADM facility had 11 million bushel storage capacity which consists of one steel bin (1 million capacity), 4 million on ground storage (2 tarped areas) and the rest in the cement silos. I asked Matt for the current storage, and throughput (received/shipped) for the prior 12 months ending August 2017 as part of the requested compliance record keeping. Records were received following the inspection, quantities show total bushels received and shipped by month. ADM had one month over 3 million bushels and several over 1 million.

Additional notes from prior inspections: Wheat is harvested in June. Fall receive the majority of grain but operate year round. Most is sent to the Carolinas for animal feed. Mostly operate truck receiving and load-out. Also load out grain to Railcars but don't receive grain this way.

Per Matthew, following the inspection, he informed me that no significant maintenance has been needed or performed on the Dust Collectors. In the prior inspection I received Preventative Maintenance Outline: DUST SYSTEM -Reverse Air Magnehelic. It states normal Magnehelic gauge reading is between 2 and 5 inches. It recommends checking this gauge each operational day. It also recommends visual inspection of the discharge from the stack. Records of gauge pressure were received for the 12 month period ending August 2017 and indicate units within this range. Compliant.

GRAIN ELEVATOR CONVEYORS AND STORAGE

All the conveyors are Enclosed in the C-HOUSE which are located under the ground level below the Silos (similar to a house basement). The A-HOUSE conveyors are also Enclosed. I did not observe any fugitive emission issues or concerns from the silo areas.

Near the C-HOUSE at the far back end of the Facility is the Dust "hopper or tank" load out drive through tunnel where primarily Farmers can come to collect (load) collected grain dust. There were no load outs occurring during this inspection.

On the railroad track side of the facility I observed, and walked through, the truck grain load out tunnel. There is a conical dust control spout (DSH referred to earlier) that is being used now, as opposed to a plastic sleeve, to prevent emissions from truck filling operations. There were no trucks being filled during the inspection. I observed a long line of parked railroad cars on the tracks near the facility and Matthew said they are all empty.

I observed the "on the ground" storage areas (identified on Site Diagram -attached) and did not observe any fugitive emissions or concerns. These are covered in tarps/balloon domes (similar to a Golf dome) where grain is stored. There are additional Concrete Silos (separate from A and C Houses) located next to the ground storage. This is also the location of the newer style Steel silo which has a 1 million bushel capacity.

During the inspection I observed the two Grain Dryers and they both appeared to be installed properly. The newer one is located in the front of the A-HOUSE and I observed the ductwork connecting it to the very front set of Silos from above. The second dryer is connected in a similar way to Silos at the end of C-HOUSE. Neither dryer was operational.

During a prior inspection I observed ADM has two Diesel Emergency Generators on site. Matthew confirmed these are the same units they currently have. One Caterpillar (new @ 2007) and one Cummins (old @ 1999). Their purpose is to operate the on-the-ground Grain Storage tarps in the event of electrical power outage.

COMPLIANCE SUMMARY

ADM Grain Company appears to be in substantial compliance with their existing PTIs at this time and the NSPS Subpart DD regulations. Records were requested and were received following the inspection and are attached to report to file.

AQD requested an up to date PTE PM10 demonstration. This information was received from ADM environmental contacts on October 17th and indicates the facility is still a true Minor Source, current PTE PM10 = 68.74 tons. This is based on maximum capacity of 20,063,075 bushels, or 581,829 tons grain.

AQD requested demonstration of VE testing on the new NSPS equipment since the prior inspection. This DSH equipment was installed under Rule 201 exemption. The NSPS VE requirement was discussed earlier in this report. All correspondence and documents received from ADM are attached to this report to file.

AQD recommends visits to the facility in the near future to observe the Grain dryer, A-House dust collector, and DSH Hopper fully operational. This is proposed for later this Fall at this time during Corn harvest or could be conducted during Spring 2018.

NAME



DATE

10/19/17

SUPERVISOR

