

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

B880928007

FACILITY: ARMADA GRAIN		SRN / ID: B8809
LOCATION: 73180 FULTON, ARMADA		DISTRICT: Southeast Michigan
CITY: ARMADA		COUNTY: MACOMB
CONTACT: Lance Hollweg, Owner		ACTIVITY DATE: 12/09/2014
STAFF: Samuel Liveson	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: MINOR
SUBJECT: Scheduled inspection		
RESOLVED COMPLAINTS:		

On December 9th, 2014, I conducted an unannounced, scheduled, level 2 inspection of Armada Grain Company (Armada Grain) located at 73180 Fulton Street in Armada, Michigan. The purpose of the inspection was to determine the facility's compliance with the federal Clean Air Act; Part 55, Air Pollution Control, of the Natural Resources and Environmental Act, 1994 PA 451, as amended (Act 451), the conditions of Consent Order (CO) AQD No. 5-1998, and to determine applicability of New Source Performance Standard (NSPS) Subpart DD: Standards of Performance for Grain Elevators.

I previously attempted an inspection on November 25th, 2014, but was asked to visit another time because the busiest days of the year are those leading up to Black Friday.

On December 9th, I conducted an odor observation before inspecting the facility. Winds were NNW at 6 mph according to [accuweather.com](http://www.accuweather.com). The temperature was 24°F and humidity at 100%. There was a light fog in the area. I detected no odors upwind of the facility on Depot St. The best downwind approximation was at the Armada Office off of North Ave, south of the facility. No odors were detected at this location.

On site, I met with Mr. Lance Hollweg, Owner. I provided Mr. Hollweg with my contact information and a copy of "Environmental Inspections: Rights and Responsibilities". Mr. Hollweg provided a tour of the facility and explained equipment and operations.

While discussing the purpose of the inspection, Mr. Hollweg informed me that the company has not been keeping any records for the scrubber as required in CO No. 5-1998. I informed Mr. Hollweg that Armada Grain would receive a Violation Notice for a lack of recordkeeping.

General Information

Armada Grain manufactures and bags grains, animal feed, and pet food. The facility operates 7:30 am to 5 pm Monday through Friday and 7:30 am – 1 pm Saturday. On opposite sides of Fulton Street are the Armada Grain manufacturing facility and the Armada Grain commercial store with offices.

Facility Walk-Through

Outside of the manufacturing facility, Mr. Hollweg pointed out the baghouse vents, boiler stack, and scrubber stack. All stacks and vents were unobstructed. Both stacks emit vertically upwards. The vent emits to the south side of the facility. No opacity or fallout was observed. Odors were mild and intermittent directly outside of the facility.

All ingredients for the grains, feed, and pet food are located in 40 bins above ground level. These bins range in size from 600 cubic feet (cf) to 2000 cf. Ingredients are mixed in the mixer below ground level and then sent upstairs to either the pellet mill or extruder. The mixer vents only to the in-plant environment and appears to be exempt from permitting requirements via R 285(dd)(ii).

The pellet mill was running during the operation. Emissions from the pellet mill are externally vented and controlled by a cyclone that appeared to be operating properly; no fallout was observed from operation. This unit appears to be exempt from permitting requirements via R 285(dd)(iii).

The extruder was not operating at the time of the inspection. The extruder vents to the scrubber. The extruder acts like a pressure cooker and is used to make dog food, cat food, and any animal food with starch and protein. The extruder uses steam and pressure to cook raw starch, which can otherwise be unhealthy for animals. This

equipment appears to be exempt from permitting requirements via R 285(dd)(iii).

A natural gas-fired boiler provides heat to the extruder and to the building for space heating and runs at 85 HP. I will inform Mr. Hollweg that Armada Grain may be subject to work practice standards associated with National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart 6J: Industrial, Commercial, and Institutional Boilers Area Sources. The AQD has not accepted delegation for this regulation, but has the potential to take delegation in the future. The boiler appears to be exempt from permitting requirements via R 282(b)(ii).

After going through the extruder, a dryer removes water from the animal food. The dryer also vents to the scrubber, and was not operating at the time of the inspection. Mr. Hollweg explained that the dryer is the primary cause of odors, though some come from the extruder. The dryer is analogous to cooking food on a stovetop, where water vapors evaporate into the air. The drying oven is natural-gas fired and has a heat input capacity of 7-8 MMBTU. It generally operates at 250-260°F. This equipment appears to be exempt from permitting requirements via R 285(dd)(iii).

The scrubber was not operating during the inspection. Emissions from both the dryer and extruder are vented to the scrubber. Emissions first pass downward through the water column and then travel upwards through the packed bed scrubber column before emitting to ambient air. According to Mr. Hollweg, about 10% of water used is fresh. The rest is recycled. A separate pressure drop gauge was installed for both the water column and packed bed scrubber per CO condition 10.A.4. A separate flow meter was installed for both scrubber towers per CO condition 10.A.5. A pH monitor and ORP monitor were located on a control panel near the scrubber per CO condition 10.A.6. An exhaust temperature indicator was installed per CO condition 10.A.7. According to Mr. Hollweg, the scrubber is always operated whenever the extruder and dryer are running.

Feed from the extruder next goes to the hammer mill, or grinder. Feed from the pellet mill can also travel to the grinder. Emissions from the grinder travel to a baghouse before venting externally. Bags are changed as needed approximately once per year. The grinder was operating during the inspection. A jet burst of air cleans the bags every few seconds. I saw that the baghouse appears to be operating properly. The grinder appears to be exempt from permitting requirements via R 285(dd)(iii). A second baghouse container is present but not in operation. Mr. Hollweg said the facility may install a second grinder at some point which would attach to that separate baghouse. I told him the second grinder would most likely be exempt from air quality permitting requirements if properly controlled.

Follow-up

The facility does not appear to be applicable to NSPS Subpart DD: Standards of Performance for Grain Elevators because the facility manufactures animal and pet food, as per 40 CFR 60.301(c).

After returning from Armada Grain on December 9th, I talked with Mr. Hollweg on the phone about potential monetary penalties associated with a Consent Order violation rather than a Permit-to-Install. Although he said he has a copy, I emailed him a copy of the consent order.

On Thursday December 11th, I talked with my supervisor about the records violation. A Violation Notice will be sent to Armada Grain for a lack of recordkeeping. Based upon the response from Armada Grain, we will decide how to proceed from there. On Friday I left a message for Mr. Hollweg to let him know he should expect a Violation Notice in the mail.

NAME  DATE 12/12/14 SUPERVISOR CJE