

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

B499735731

FACILITY: Morning Star Grain (was Grower Service Corp.)		SRN / ID: B4997
LOCATION: 11810 E LENNON RD, LENNON		DISTRICT: Lansing
CITY: LENNON		COUNTY: SHIAWASSEE
CONTACT: Karen Bowns , Merchandizer		ACTIVITY DATE: 07/26/2016
STAFF: Julie Brunner	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Scheduled inspection of Morning Star Grain - Lennon Elevator		
RESOLVED COMPLAINTS:		

On July 26, 2016, I conducted a scheduled inspection of Morning Star – Lennon Elevator (B4997) located at 11810 Lennon Road in Lennon. This was in coordination with a self-initiated inspection of Providence Agriculture (P0325) located at 11784 Lytle Road. The last AQD inspection date of this facility was not listed in MACES. The last date that an AQD inspector was at the facility was in July 2011 for a complaint investigation dealing with fugitive dust from unpaved roadways.

**Facility Contacts:**

Ms. Karen Bowns, Morning Star Grain Merchandizer, 810-621-3320, [lennonelevator@gmail.com](mailto:lennonelevator@gmail.com)

Mr. Rob Stowenburg, Morning Star – Lennon Elevator

**Facility Description and Regulatory Review:**

Morning Star Grain – Lennon Elevator is an existing grain terminal elevator that shares office space with Providence Agriculture (Ag). The fertilizer operation owned and operated by Providence Ag is located across the street from the grain terminal elevator. Former names/owners for the elevator include The Pillsbury Company, Berger and Company, and Growers Service Corp. The grain terminal elevator is pre 1967.

Morning Star Grain – Lennon Elevator is located off the downtown of Lennon in a mixed use commercial/residential area. Residential housing is located directly to the east and west of the facility.

The grain terminal elevator is not subject to New Source Performance Standard (NSPS) in 40 CFR 60, Subpart DD—Standards of Performance for Grain Elevators.

**§60.300 Applicability and designation of affected facility.**

- (a) The provisions of this subpart apply to each affected facility at any grain terminal elevator or any grain storage elevator, except as provided under §60.304(b). The affected facilities are each truck unloading station, truck loading station, barge and ship unloading station, barge and ship loading station, railcar loading station, railcar unloading station, grain dryer, and all grain handling operations.
- (b) Any facility under paragraph (a) of this section which commences construction, modification, or reconstruction after August 3, 1978, is subject to the requirements of this part.

**§60.301 Definitions.**

- (c) Grain terminal elevator means any grain elevator which has a permanent storage capacity of more than 88,100 m<sup>3</sup> (ca. 2.5 million U.S. bushels), except those located at animal food manufacturers, pet food manufacturers, cereal manufacturers, breweries, and livestock feedlots.
- (f) Grain storage elevator means 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 m<sup>3</sup> (ca. 1 million bushels).

The facility predates the NSPS applicability date of August 3, 1978 and has a storage capacity of 330,000 bushels of wheat, corn, and soybeans.

The facility is a minor source of any regulated air contaminants including hazardous air pollutants (HAPs) and not subject to the Title V Renewable Operating Permit (ROP) program.

**Active Air Use Permits to Install (PTI):**

PTI 769-83 – Baghouse collector

Special Condition (SC) 14 – Particulate matter (PM)  $\leq 0.10$  lb/1000 lb of dry exhaust gases  
SC 15 - 10% opacity  
SC 17 – Baghouse installed and operating properly

PTI 989-92 – Zimmerman grain dryer for wheat, soybeans, and corn  
SC 15 - 5% opacity  
SC 16 - Column plate perforations  $\leq 0.094$  inch

Michigan Air Emissions Reporting System (MAERS):  
The facility does not report emission information to MAERS.

The facility is not required to have a fugitive dust plan. The gravel driveways may be treated with calcium chloride. There have been fugitive dust complaints in the past, but there have not been any recent complaints.

Inspection:

I arrived at 9:32 AM. Weather conditions were 75°F and sunny with no wind. I detected no odors around the facility. There were no visible emissions from the operations.

A pre-inspection meeting was conducted with Mr. Dave Smith (Providence Ag) and Mr. Rob Stowenburg (Morning Star – Lennon Elevator). I gave a brief overview of the inspection process and provided an "Environmental Inspections" brochure.

The facility operations were discussed. The wheat harvest just finished and current operating hours are 9:00 AM to 3:00 PM. The facility does not have any boilers or emergency generators. A facility tour was then taken.

Less than 1 million (MM) bushels of grain is processed by the facility in a year. Rob estimated throughputs of approximately 400,000 bushels of corn, 400,000 bushels of soybeans, and 160,000 bushels of wheat. The storage silos were currently full of wheat.

**Grain Dryer, PTI 989-92 –**

The natural gas-fired grain dryer is a Zimmerman Model No. VT1512 with a maximum heat input of 16.6 MMBtu/hr, and column plate perforation screens of 0.078 and 0.0625 inches. The dryer is used to dry wheat, corn, and soybeans if needed. It was installed in 1992 to replace an existing grain dryer. It was not operating, and was open for maintenance. When operating, grain is introduced at the top of the column and passes by the outside of the dryer zone.

**Baghouse Collector for Grain Handling Systems, PTI 769-83 –**

A baghouse collector with pickups in the basement and truck receiving areas sits up on the side of the silos beside the grain dryer. It was installed in 1984. The baghouse is operated during harvest when needed. It does not have a pressure drop gauge on it that could be found, but the permit does not require it. When the chain gets clogged, the system won't run. There is also a cyclone that sits up by the baghouse. I think exhaust gases from the grain handling processes that use the cyclone are vented to the baghouse. There is also a shaker table on the mill floor that cleans chaff off of wheat. Dust is never seen from baghouse and shaker operations. Dust collected from the cyclone and baghouse are dropped down to an enclosed trailer that sits under the system. The dust is disposed of in a farm field.

Pictures of the cyclone, baghouse and grain dryer were taken. It does appear that a piece of wood has been jammed into an access panel on the side of the baghouse. This will allow air infiltration while the baghouse is operating and decrease collection efficiency of the baghouse. It is recommended that the door be replaced or properly fixed, and the bag filters be checked.

The other silo does not have an air control system. It does have a cooling fan system because grain conveyed from the dryer can be warm. Grain is loaded into trucks from the silos from multiple spigots located on the side of each silo.

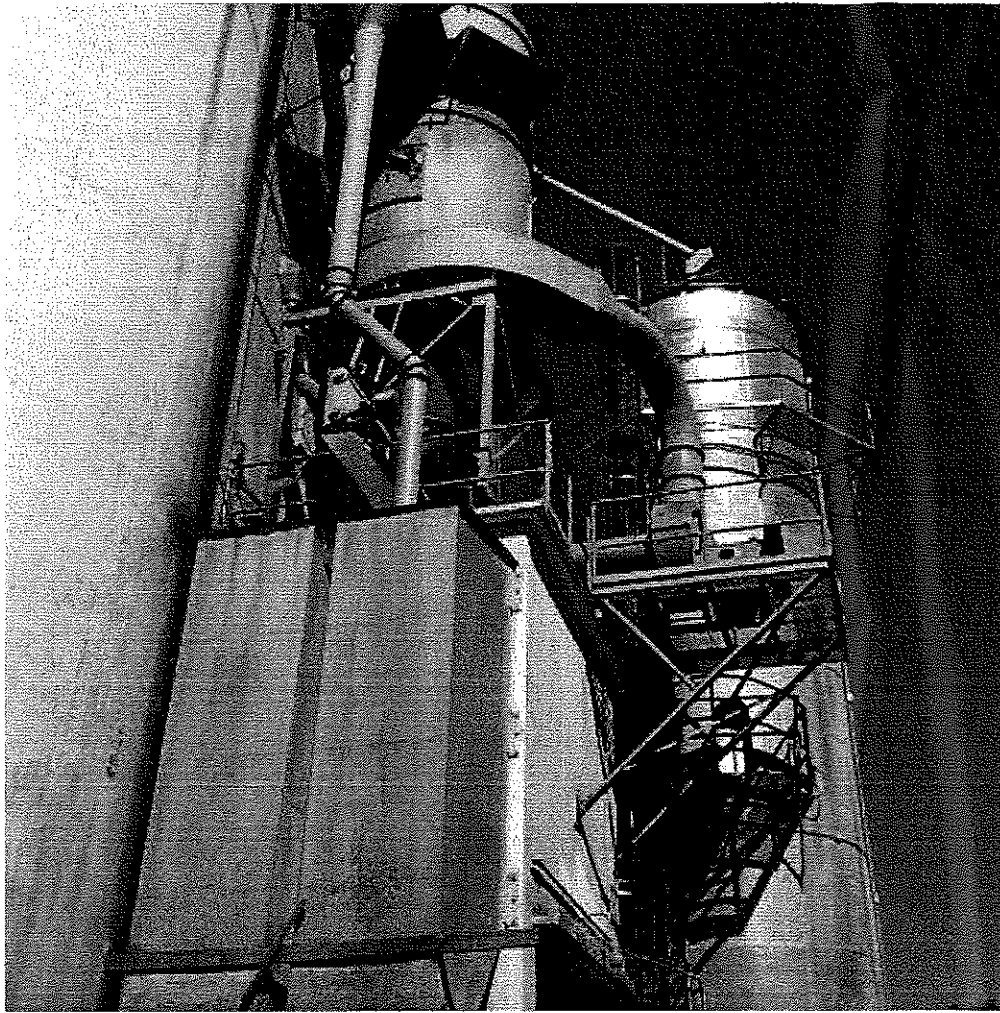


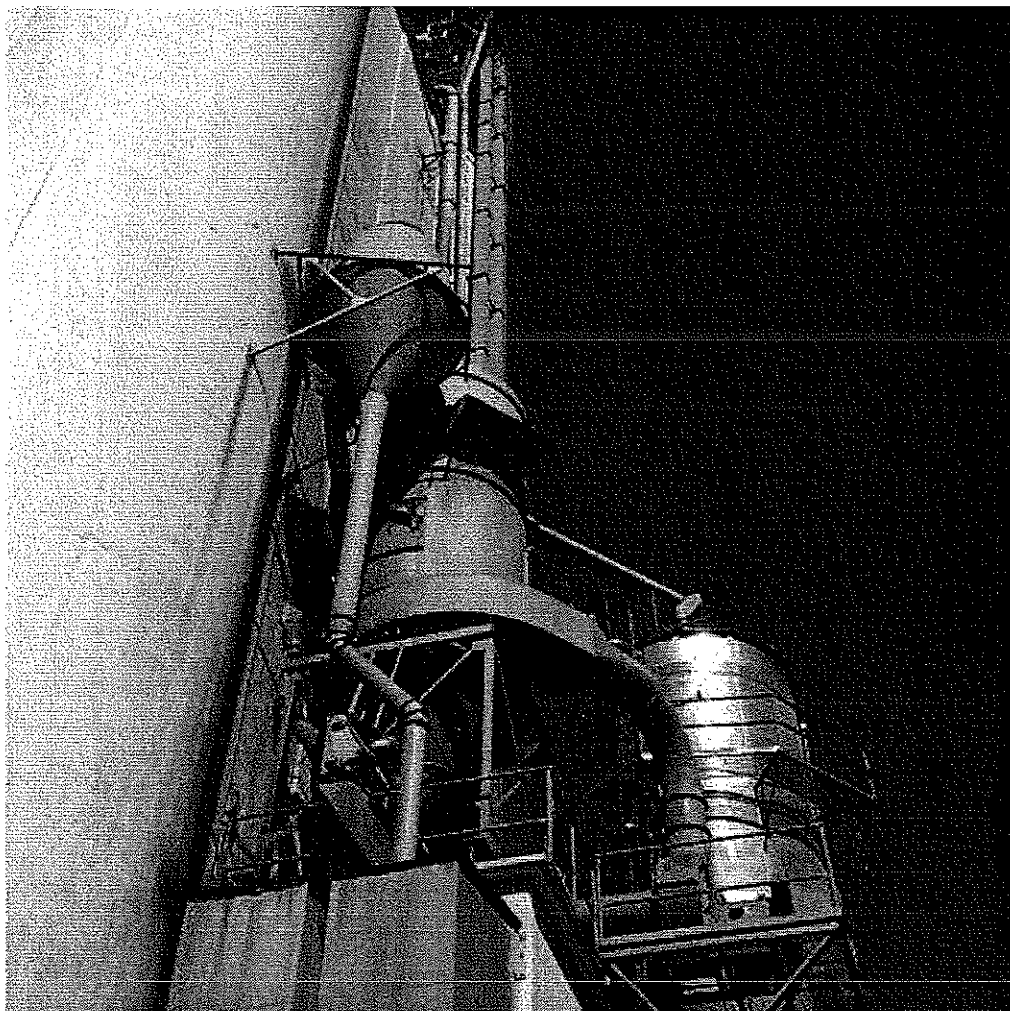
Image 2(Side of Silo) : baghouse, grain dryer

**Departure:**

I departed the facility at 10:32 AM after discussing my observations with Rob (and Dave).

**Summary:**

The facility appeared to be in compliance with all applicable rules, regulations, and permits.



**Image 1(Side of Silo) :** Cyclone, baghouse, grain dryer



Image 3(Dust Loadout) : Truck loading

NAME

Julie L. Burns

DATE

7/8/16

SUPERVISOR

B. M.

