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

N784240152

FACILITY: CLARK FARMS		**SRN / ID:** N7842
LOCATION: 10641 W CLARK RD, EAGLE		**DISTRICT:** Lansing
CITY: EAGLE		**COUNTY:** CLINTON
CONTACT: Jake Clark , Co-owner		**ACTIVITY DATE:** 06/08/2017
STAFF: Julie Brunner	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MINOR
SUBJECT: Scheduled Compliance inspection of Clark Farms; General PTI No. 252-07 for Anhydrous Ammonia Handling and Storage		
RESOLVED COMPLAINTS:		

On June 8, 2017, I conducted an unannounced, scheduled inspection for compliance with General Permit to Install (GPTI) 252-07 for a single anhydrous ammonia storage tank and any associated handling process, nurse tanks or applicator tanks located at Clark Farms in Eagle. This process was last inspected on March 4, 2013.

Facility Name/Address:
Clark Farms
10641 W. Clark Road
Eagle, Michigan

Facility Contact:
Mr. Jake Clark, 517-626-6696, jakeclark@clarkfarmscompanies.com

Facility Description:
Clark Farms grows corn and utilizes anhydrous ammonia as a fertilizer for it. The usage of anhydrous ammonia is a seasonal operation occurring mainly in May with one month to at most three months of operation. The process consists of one (1) 18,000 gallon anhydrous ammonia permanent storage tank, filling station for nurse tanks, and nurse tanks for application of anhydrous ammonia as a fertilizer.

Clark Farms is located north of the City of Grand Ledge and north of I-96. The area surrounding the farm is rural and agricultural with some residential housing. The closest house is north and located approximately 600 feet from the fenced-in storage area with the permanent storage tank, nurse tank storage, and nurse tank fill loading station.

Regulatory Review:
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.

Other applicable regulations include the following -
Part 78, Storage and Handling of Anhydrous Ammonia", (MIOSHA 1910.111) hereinafter Rule 7801. Michigan Occupational Safety and Health Act (MIOSHA) safety standards.

Emergency Response Plan and Risk Management Plan (40 CFR 68)

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

Inspection:
Arrived: 8:45 am
Departed: 9:35 am
Weather: 63°F, WSW@3 MPH

No visible emissions (VEs) were observed from the facility upon arrival. No ammonia odors were identified surrounding the facility.

I met Mr. Jake Clark in the farm office. The purpose of my visit and the status of the facility operations

were discussed. A farm auction was happening. The farm equipment was being sold. The nurse tanks had been sold on June 6th and the new owners were to pick them up today or tomorrow. The 18,000 gallon anhydrous ammonia permanent storage tank was empty (under 90 lb pressure, ~2% ammonia), and had not been prepared nor filled for this season. Jake was currently unsure if it would be used or sold. A facility tour was taken to look at the equipment followed by a records review.

The permanent storage tank, the nurse tank loading station (south of the permanent storage tank), and nurse tanks (wagons) are located in a fenced and gated area on the south side of the southern large pole barn.

Inspection notes per the Special Conditions (SC) of GPTI 252-07:
III.1 Except where specific requirements of these special conditions are applicable and more stringent, EU-AMMONIA shall comply with the Department Of Labor and Economic Growth General Industry Safety Standards, Part 78. Storage and Handling of Anhydrous Ammonia – (1910.111) hereinafter Rule 7801. A copy of this document, which may be obtained by contacting the Michigan Occupational Safety and Health Administration, MIOSHA Standards Section, 7150 Harris Drive, P.O. Box 30643, Lansing, MI 48909-8143, shall be maintained for inspection at the facility. (R 336.1901)

Notes – A copy of this standard is maintained on file in the office.

III.2 The permittee shall not operate EU-AMMONIA unless the inspection and maintenance program specified in Appendix A has been implemented and maintained. (R 336.1901)

Notes – The inspection logs for the tanks were viewed, and copies of the inspection and maintenance at the start of the 2016 season were obtained. The inspections are logged (using Appendix A) and maintenance noted. There are no inspection logs for 2017 because the process has not been prepared for use.

III.3 The permittee shall not operate EU-AMMONIA unless an emergency response plan, to be followed in the event of an emergency, has been approved by the local fire department or county emergency response agency and is implemented and maintained. Prior to each spring season, the permittee shall review this plan with the local fire department or emergency response agency and make any necessary updates. (R 336.1901)

Notes – The emergency response plan is located in the farm office with all the emergency contact information. A copy of the page with Anhydrous Ammonia Emergency Contacts from the plan is attached. The Michigan Agricultural Environmental Assurance Program (MAEAP) certification dated December 18, 2012, recognizes that Clark Farms has an emergency plan, among other criteria required for certification. If the process is used this season, it appears that the plan needs to be reviewed with the local fire department.

III.4 EU-AMMONIA shall be located a minimum of 50 feet from the property line; 300 feet from any existing places of residence or private or public assembly; 500 feet from a school, apartment building, or institutional occupancy; and not less than 1000 feet from a hospital or nursing home. (R 336.1901)

Notes – The tanks are stored at greater than 600 feet from the nearest residence. Storage of any tank is greater than 50 feet from property boundaries, and there is no school, apartment building, or institutional occupancy close to the property boundaries.

III.5 The permittee shall not operate EU-AMMONIA unless all transfer operations including transport deliveries are performed by a reliable person properly trained and made responsible for proper compliance with all applicable procedures. (R 336.1901)

Notes – Only the drivers (of the transport deliveries) load the permanent storage tank because they are trained to do it. Two people (Jake is one of them) are trained to load the nurse tanks.

III.6 Nurse and applicator tank storage shall be no less than 50 feet from the property line; 150 feet from any existing places of residence or private or public assembly; 250 feet from a school, apartment

building, or institutional occupancy; and no less than 1000 feet from a hospital or nursing home. (R 336.1901)

Notes – The nurse and applicator tanks are stored at greater than 600 feet from the nearest residence. Storage of any tank is greater than 50 feet from property boundaries, and there is no school, apartment building, or institutional occupancy close to the property boundaries.

III.7 Nurse tank filling shall be done only from a permanent stationary storage tank. (R 336.1901)

Notes – The nurse tank loading station is directly (hard wired) connected to the permanent storage tank. Filling of nurse tanks was not occurring during the inspection but it would be difficult for filling of nurse tanks to occur anywhere else in the yard.

III.8 Nurse and applicator tanks shall be filled to no more than 85 percent of liquid capacity by volume. Storage tanks may be filled according to temperature density correction tables in Rule 7801(b)(11) where tanks have a thermometer well and suitable level gauge. (R 336.1901)

Notes – Jake confirmed that the tanks are filled to no more than 85%.

III.9 Vapor return lines shall be employed whenever necessary to ensure an accidental release from pressure relief valves will not occur during ammonia transfer operations. (R 336.1901)

Notes – Liquid fill lines are marked in red and vapor return lines are marked in yellow. The lines are marked to and on the nurse tank filling station, and on the nurse tanks.

III.10 Nitrogen stabilizer shall not be added to any permanent stationary storage tank or to rail or truck transport tanks. (R 336.1901)

Notes – Jake confirmed that nitrogen stabilizer is not used.

IV.1 All containers shall be fitted with safety relief valves in accordance with Rule 7801(b)(9). Such valves shall be stamped with the date manufactured, and shall be replaced, or re-tested and re-certified, at least every five years or more often if there is evidence of damage or deterioration. (R 336.1225, R 336.1901)

Notes – Safety relief valves are installed. There are three (3) on top of the permanent storage tank and one (1) on top of each nurse tank and protected from damage by steel cages. There was no evidence of damage or deterioration.

IV.2 The permittee shall not operate EU-AMMONIA unless a remotely operated internal or external positive shut-off valve is installed to allow access for emergency shut-off of all flow from stationary storage containers. (R 336.1225, R 336.1901)

Notes – Confirmed that the shut-off valve is installed on the permanent storage tank. The cable was broken to the valve. The cable will need to be repaired before the process can be used. See pictures of emergency shut-off valve.

IV.3 The permittee shall not operate EU-AMMONIA unless a bulkhead, anchorage, or equivalent system is used at each transfer area so that any break resulting from a pull will occur at a predictable location while retaining intact the valves and piping on the plant side of the transfer area. (R 336.1225, R 336.1901)

Notes – Confirmed installed. (See pictures.)

IV.4 The permittee shall not operate EU-AMMONIA unless liquid lines in rail and transport transfer areas are equipped with back pressure check valves and all liquid lines not requiring a back check valve and all vapor lines are equipped with properly sized excess flow valves. The permittee shall install these

valves on the main container side of the predictable break point at the bulkhead. (R 336.1225, R 336.1901)

Notes – Confirmed installed. (See pictures.)

IV.5 All hoses shall be replaced five years after date of manufacture or more often if there is evidence of damage or deterioration. (R 336.1225, R 336.1901)

Notes – All hoses in good shape. Some are stamped with remove by 2017 and some are stamped with remove by 2019. The hoses stamped with remove by 2017 will need to be replaced before the process can be used again. (See pictures.)

IV.6 Any vapor or liquid line, exclusive of couplings, requiring venting after ammonia transfer shall be vented through a water trap of 55 gallons minimum size. Safety water shall not be used for this purpose. (R 336.1225, R 336.1901)

Notes – A 55 gallon water trap for vapor bleed off is located by the bulkhead. (See picture.) Jake pointed out areas where safety water access is located.

IV.7 A sign shall be present and conspicuously placed at the facility entrance stating the emergency phone numbers for the owner, primary operator, local and state police, local fire department, and ambulance service. (R 336.1901)

Notes – Confirmed installed at the front of the facility and posted a various locations. (See picture of signage located in the tank area.)

VI.1 The permittee shall keep, in a satisfactory manner, records of the date, duration, and description of any malfunction or spill occurring from EU-AMMONIA, including the estimated amount of ammonia released into the atmosphere. Do not include trace amounts from normal hose coupling bleed downs. All records shall be kept on file and made available to the Department upon request. (R 336.1201(3))

Notes – According to Jake, there has never been a release.

VI.2 The permittee shall keep, in a satisfactory manner, records of the date of annual review and approval of the emergency response plan with the local fire department. All records shall be kept on file and made available to the Department upon request. (R 336.1201(3))

Notes – This record appears missing and we discussed ways to document this. I recommended review of the emergency response plan with the local fire department and documentation, if the process is used again.

IX.1 The permittee shall not replace or modify any portion of EU-AMMONIA, nor install new equipment unless all of the following conditions are met: (R 336.1201)
a) The permittee shall update the general permit by submitting a new Process Information Form (EQP5731) to the Permit Section and District Supervisor, identifying the existing and new equipment a minimum of 10 days before the replacement, modification, or installation of new equipment.
b) The permittee shall continue to meet all general permit to install applicability criteria after the replacement, modification or installation of new equipment is complete.
c) The permittee shall keep records of the date and description of any replacement, modification, or installation of new equipment at the source. All records shall be kept on file for a period of at least five years and made available to the Department upon request.

Notes – No modifications or installation of new equipment has occurred since the GPTI was issued.

Records:
Copies of records are attached to this activity report.
1. Appendix A – Inspection and Maintenance Program logs

2. Copy of the page with Anhydrous Ammonia Emergency Contacts from the emergency response plan.

Summary:
The facility appeared to be in compliance with GPTI 252-07. If the process is used this season, repairs will need to be made, hoses replaced, and the emergency response plan reviewed with the local fire department. If the main storage tank is sold and removed from the facility, AQD can be contacted and the GPTI can be voided.

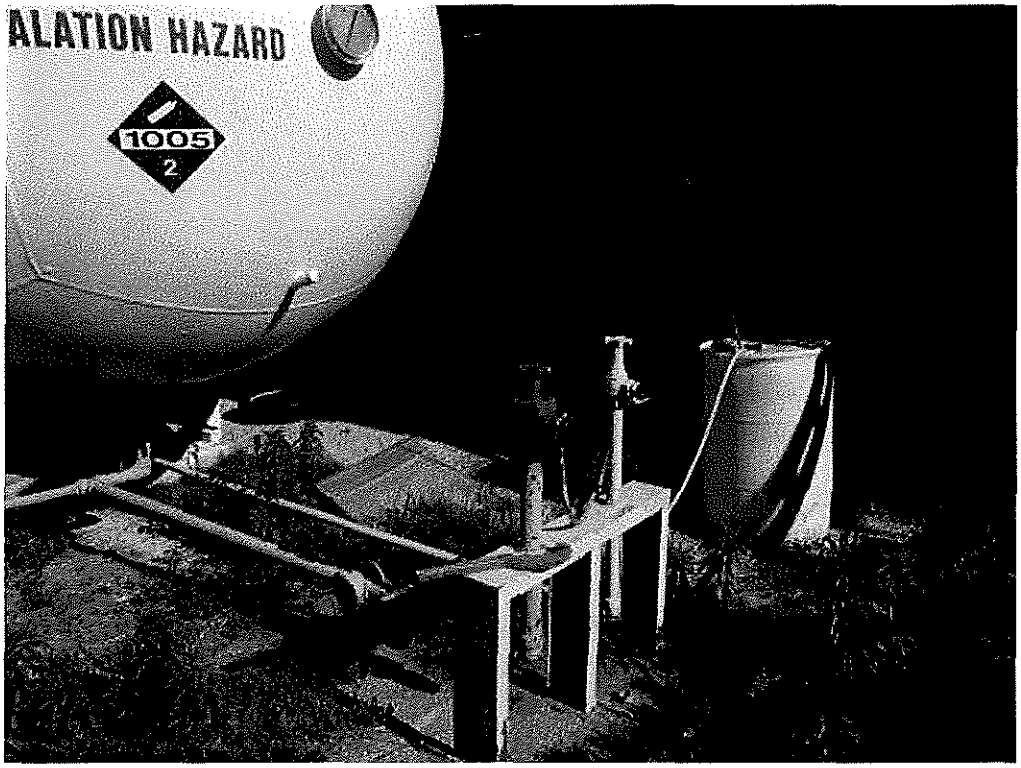

Image 1(Bulkhead) : Permanent storage tank bulkhead, water trap, and safety valve

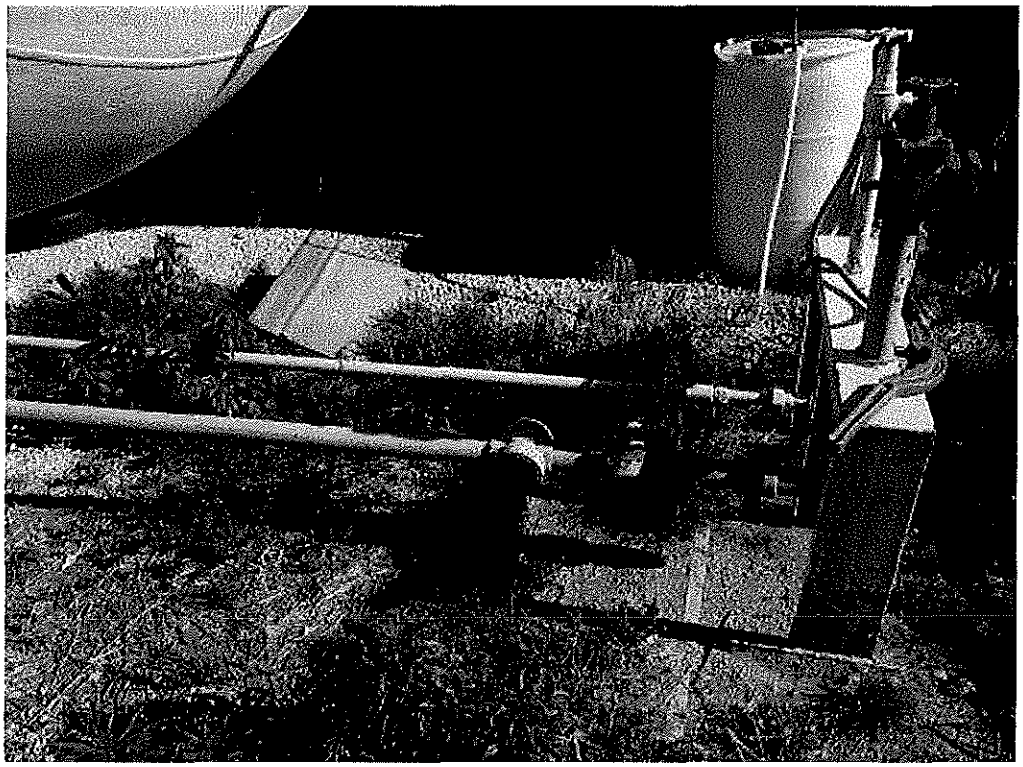

Image 2(Safety valve) : Remotely operated shut-off valve

Image 3(Fill station) : Nurse tank file station - blocked off because not in use.

Image 4(Nurse tanks) : Storage

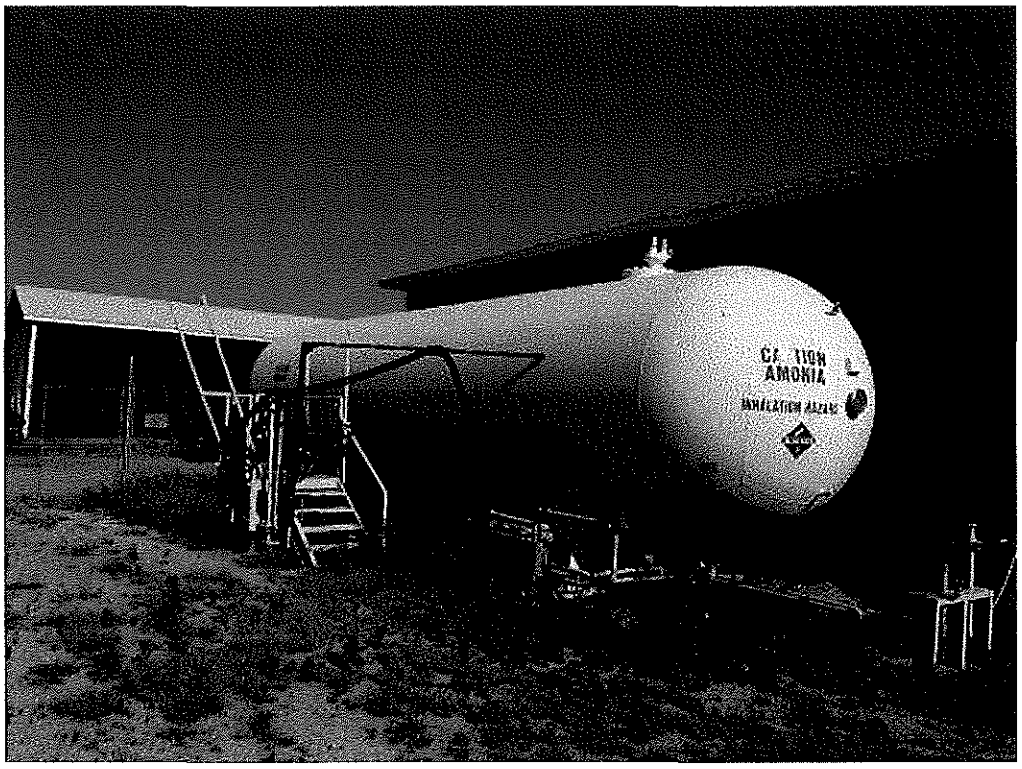

Image 5(Permanent tank) : Stationary tank - 18,000 gallon

Image 6(Sign) : Emergency contact sign

NAME Julie L. Brunner DATE 6/8/17 SUPERVISOR B. M.