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

N794235917

FACILITY: BEDNARYCZK FARMS LLC		SRN / ID: N7942
LOCATION: 8209 VAN DYKE RD, MARLETTE		DISTRICT: Lansing
CITY: MARLETTE		COUNTY: LAPEER
CONTACT: Rodney Bednaryczk , Member		ACTIVITY DATE: 08/09/2016
STAFF: Daniel McGeen	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: MINOR
SUBJECT: Scheduled inspection of anhydrous ammonia tank which has not previously been inspected by AQD.		
RESOLVED COMPLAINTS:		

On 8/9/2016, the DEQ, AQD, conducted a scheduled inspection of a permitted 30,000 gallon anhydrous ammonia tank and handling process at Bednaryczk Farms, which has not previously been inspected by AQD.

Environmental contact:

Melvin Bednaryczk, Member; 989-635-7185

Facility description:

This facility is a farm, with a 30,000 gallon ammonia storage tank and handling process onsite.

Emission units:

Emission unit ID	Emission unit description	General Permit to Install No.	Compliance Status
EU-AMMONIA	A single anhydrous ammonia storage tank and any associated handling process, nurse tanks or applicator tanks. This tank's capacity is rated as 30,000 gallons.	396-07	Noncompliance, with Special Condition No. IV. 7.

Regulatory overview:

This facility was issued a General Permit to Install for an anhydrous ammonia tank No. 396-07, on 12/20/2007. This facility is agricultural in nature. It is considered to be a true minor source, rather than a major source of air emissions. A *major source* has the potential to emit (PTE) of 100 tons per year (TPY) or more, of one of the criteria pollutants. *Criteria pollutants* are those for which a National Ambient Air Quality Standard exists, and include carbon monoxide, nitrogen oxides, sulfur dioxide, volatile organic compounds (VOCs), lead, particulate matter smaller than 10 microns, and particulate matter smaller than 2.5 microns. It is also considered a minor or area source for Hazardous Air Pollutants (HAPs), because it was not considered to have a PTE of 10 TPY or more for a single HAP, nor to have a PTE of 25 TPY or more for combined HAPs.

AQD most recently updated the Special Conditions for the General Permit to Install for anhydrous ammonia tanks on 3/3/2005.

Fee status:

This facility is not a Category I fee subject source, because it is not a major source for criteria pollutants. It is not a Category II fee-subject source because it is not a major source for Hazardous Air Pollutants (HAPs), nor is it subject to federal New Source Performance Standards. Additionally, it is not Category III fee-subject, because it is not subject to federal Maximum Achievable Control Technology standards. The facility is not required to submit an annual air emissions report via the Michigan Air Emissions Reporting System (MAERS).

Location:

This facility is in a rural, agricultural area. It is located on both the east and west side of Van Dyke Road. The ammonia tank is on the west side of the road, behind a grouping of farm buildings.

Recent history:

AQD has never previously inspected this facility. AQD attempted to conduct an unannounced, scheduled inspection on 4/19/2016 (*scheduled* refers to an inspection which AQD has committed to, during inspection planning at the start of a new fiscal year). No one was available on this date for the length of time a full inspection would take, as it was a particularly busy time of year. I provided Mr. Melvin Bednaryczk and Mrs. Bednaryczk with a copy of the anhydrous ammonia brochure on 4/19. On 8/4/2016, I again attempted to conduct an unannounced inspection, but everyone was out spraying fields, or getting ready to do so. I also provided a family member, Mr. Rodney Bednaryzck, with a copy of the updated Special Conditions for the General Permit to Install for ammonia tanks on 8/4. Because of my lack of success at conducting an unannounced inspection, I arranged over the phone to meet with Mr. Melvin Bednaryczk today, 8/9, at 12:30 PM.

Arrival:

I arrived today at 11:25 AM, earlier than planned, because other field work in the area had gone much quicker than anticipated. Mr. Rodney Bednaryczk accompanied me during most of the inspection, and later, Mr. Randy Bednaryczk accompanied me, to finish the inspection.

I had previously provided a copy of the DEQ brochure *Environmental Inspections: Rights and Responsibilities*, during my 4/19 site visit. I had not provided a copy of the informational card for the federal boiler National Emissions Standards for Hazardous Air Pollutants (NESHAPs), Subparts DDDDD and JJJJJJ, because it did not appear likely there would be any boilers or hot water heaters onsite, other than residential.

Inspection:

Weather conditions were 84 degrees F, sunny, and humid, with winds out of the south at 0-5 miles per hour. The only time I ever detected an ammonia odor today was a barely perceptible smell for one moment, while standing within several inches of the valve at the end of a hose for the ammonia tank. The inspection found the anhydrous ammonia tank and associated handling equipment to be very well maintained, as is described in a checklist in this report.

Compliance with the updated anhydrous ammonia tank general PTI special conditions is described below.

I. EMISSION LIMITS

NA

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

Special Condition (SC) No. 1 requires the permittee to maintain onsite a copy of Part 78, Storage and Handling of Anhydrous Ammonia (MIOSHA 1910.111). They have at least one copy of this at the site, since I provided one, during the previous site visit, on 4/19/2016.

SC No. 2 requires the inspection and maintenance (I and M) program specified in Appendix A of the General PTI to be implemented and maintained. It is my understanding that twice per year, they are following the I and M program, for the anhydrous ammonia tank, but have not kept written records of this, because they were aware that everything was getting done. I advised that they should begin

keeping the records in writing, from this point forward.

The I & M checklist for a permanent ammonia storage tank, from Appendix A of the General PTI, was reviewed as follows:

1. Tank free of leaks: Yes
2. Tank supports in good condition (no cracked or crumbled concrete, etc.): Yes.
3. Paint in good condition: Yes.
4. Equipment locked when not in use: Yes, padlocks observed.
5. Tank properly labeled: U.S. DOT placard for pressurized gas, On the tank was a green U.S. DOT placard for pressurized gas, with DOT/UN 4 digit Identification Number 1005. It is my understanding that they will add a label reading ANHYDROUS AMMONIA: INHALATION HAZARD, as they have such a label already onsite.
6. Valves and fittings free from leaks and in good condition: Yes.
7. Piping properly supported and guards in place: Yes.
8. Pipes free of physical damage and rust and properly painted: Yes; pipes said to have been replaced this spring.
9. Employees trained in proper filling procedures: Yes, I was informed..
10. Provisions for bleeding of transfer hose from transport truck: Yes; a tank is brought out.
11. Wheels properly chocked on the transport truck or rail car while unloading: Yes, I was advised they carry appropriate equipment.
12. Information and warning signs displayed and in good condition: On the tank was a green U.S. DOT placard for pressurized gas, with U.S. DOT/UN 4 digit Identification Number 1005. It is my understanding that they will add a label reading ANHYDROUS AMMONIA: INHALATION HAZARD, as they have such a label already onsite.
13. Area free of weeds, trash, and other unsafe conditions: Yes.
14. Unused equipment stored out of the way: Yes.
15. Chemical safety goggles available, and in good condition: Yes; in good condition, in original box.
16. Protective gloves, boots, suits or slickers available and in good condition: Yes.
17. Gas masks with ammonia type canisters and refill canisters within date limits available: No, but I was informed they will obtain a gas mask from their safety equipment supplier.
18. Emergency clean water, shower or 75 gallon tank available nearby: Yes (shower).
19. Hoses in good condition: Yes.
20. Hoses no older than 5 years from date of manufacture and marked: Yes, 2015.
21. Vapor and liquid hoses are proper ammonia-type and free of damage or deterioration: Yes.
22. Hoses suitably racked to prevent kinking: Yes.
23. Hoses, including those on nurse tanks, securely clamped to the nipples: Yes, for stationary tank (see next checklist for nurse tanks).
24. Gages, pressure and liquid level, operable: Yes.
25. Valves properly labeled "liquid" and "vapor": I was informed that they use color codes, where red = liquid, yellow = vapor.
26. Safety relief valves within 5 years of manufacture or recertification and marked: Replaced in Spring 2016; marked, but engraved writing too small to read; I suggested additional labeling.
27. Outlet openings on valves and lines free of dirt and rust with protective caps in place: Yes.
28. Safety relief valves free of debris with rain caps installed: There was uncertainty to the relevance of rain caps, as they had never heard of them, I was informed. it is my understanding that they will look into this, and see if rain caps would be appropriate for their equipment, as there may be a rubber fitting already in place. The fill valves have caps, I was told.
29. Safety relief valve manifold operable: There was uncertainty as to what this referred to, and if it is relevant for their tank.
30. Remote shut-off valve in working order: Yes; Rodney Bednaryczk verified this for me.

We also examined a number of portable nurse tanks inside one of their barns. The I&M checklist for nurse and applicator tanks allows for voluntary recordkeeping, at the discretion of the permittee.

The I & M Program checklist for nurse and applicator tanks, from Appendix A of the General PTI, was reviewed as follows:

1. Tank(s) free of leaks: Yes.

2. Paint in good condition: Yes.
3. Valves and fittings free from leaks and in good condition: Yes.
4. Protective guards in place and in good condition: Yes.
5. Outlet openings on valves and lines free of dirt and rust with protective caps in place: yes.
6. Safety relief valves free of debris with rain caps installed? There was some uncertainty as to the relevance of this; it is my understanding that they will look into this, as there may already be a rubber fitting in place.
7. Gages, pressure and liquid, are operable: Yes (nurse tanks were empty, at tis time).
8. Excess flow valves installed and in good condition: Yes; these are in hoses on the bleeds, I was shown.
9. Valves properly labeled "liquid" and "vapor": I was informed that red = liquid, yellow = vapor,
10. Vapor and liquid hoses are proper ammonia type and free of damage or deterioration: I was informed that hoses stay with the tool (which, to my understanding, is towed behind a tractor when anhydrous ammonia is applied as fertilizer).
11. Hoses, including those on nurse tanks, securely clamped to the nipples: See number 10, above.
12. Hoses suitably racked to prevent kinking and hose on delivery tanks securely fastened to prevent dragging: See number 10, above.
13. Tanks securely attached: Yes (on running gear).
14. Trailer tongues, hitches, and safety chains in sound condition.
15. Nurse tank valves locked or capped if site is unattended or not fenced in: the tanks are stored inside a barn.
16. Nurse tanks properly labeled: A a green U.S. DOT placard for pressurized gas, for anhydrous ammonia, was in place.
17. Five gallon or larger can filled with clean water for transport vehicles: Yes, gray cans on sides of nurse tanks.
18. Quick disconnects annually reconditioned: Yes, I was informed.

SC No. 3 requires an emergency response plan to be approved by the local fire department or county emergency response agency, and to be implemented and maintained. The permittee is also required to review this plan with the local fire department or emergency response agency and make any necessary updates. They have been communicating each year with their local fire department officials, to go over their emergency response plan, I was informed, but have not kept written records of it. I indicated that they should document those meetings in writing, from this point forward.

SC No. 4 requires that EU-AMMONIA 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 1,000 feet from a hospital or nursing home. I was informed that they are meeting this requirement, and my review of satellite images some time prior to the inspection resulted in the same conclusion.

SC No. 5 requires that all transfer operations including transport deliveries are performed by a reliable person properly trained and made responsible for proper compliance with all applicable procedures. I was informed that Rodney and Randy Benaryczk and one other person are trained.

SC No. 6 states how close nurse and applicator tank storage can be to the property line, residences, places of private or public assembly, schools, apartment buildings, institutions, hospitals, or nursing homes. I was informed that they are meeting this requirement. My review of satellite images some time before the inspection resulted in the same conclusion.

SC No. 7 requires that nurse tank filling shall only be done from a permanent stationary storage tank. I was informed that they are meeting this requirement.

SC No. 8 states that nurse and applicator tanks shall be filled to no more than 85% of liquid capacity by volume. It is my understanding that they are meeting this requirement.

SC No. 9 states that vapor return lines shall be employed whenever necessary to ensure an accidental release from pressure relief valves will not occur during ammonia transfer operations. It is my understanding that they are meeting this requirement.

SC No. 10 states that nitrogen stabilizer shall not be added to any permanent stationary storage tank or

to rail or truck transport tanks. I was informed that they are not adding any nitrogen stabilizer.

IV. DESIGN/EQUIPMENT PARAMETERS

SC No.1 requires that all containers shall be fitted with safety relief valves in accordance with Rule 7801 (b)(9). The valves are required to be stamped with the date manufactured, and to be replaced, or retested and certified, at least every five years or more often, if there is evidence of danger or deterioration. The tank was fitted with relief valves, but the engraved writng on them was so small that neither Rodney Bednarcyzk or I could read it. However, the valves were replaced Spring 2016, I was informed. I suggested that in some manner additional markings could be added to the valves, listing the replacement date, based on our inability to read the minute engraving on the valves.

SC No. 2 requires a remotely operated internal or positive shut-off valve to allow access for emergency shut-off of all flow from stationary containers. I was shown a remotely operated shut-off valve, so they appear to be meeting this requirement.

SC No. 3 requires a bulkhead, anchorage, or equivalent system to be 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. I was shown that they are meeting this requirement.

SC No. 4 requires that any liquid lines in rail and transport transfer areas be equipped with back pressure check valves and that all liquid lines not requiring a back check valve, and all vapor lines, be equipped with properly sized excess flow valves. These valves are required to be installed on the main container side of the predictable break point at the bulkhead. I was informed that all the lines are equipped with back pressure check valves.

SC No. 5 requires that all hoses be replaced five years after the date of manufacture, or more often, if there is evidence of damage or deterioration. It is my understanding that the hoses were replaced in 2015.

SC No. 6 states that any vapor line, exclusive of couplings, requiring venting after ammonia transfer be vented through a water trap of 55 gallons minimum size. Safety water is prohibited from being used for this purpose. I was informed that they have various containers, kept in a barn, which are filled with water, when needed for this. It is my understanding that they will make certain that they use a container of a minimum 55 gallons in size.

SC No. 7 requires that a sign 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. They do not currently have a sign in place, which constitutes a violation of this Special Condition of the general PTI. However, they indicated they are willing to correct this. One option they proposed is to paint a sign on the door of their barn nearest to the ammonia tank. This may be too close to the tank, to meet the intent of the requirement to have a sign which can be observed at a safe distance, if there should ever be an accidental release of anhydrous ammonia. However, there are other potential locations within the property which might work. AQD will discuss these with the members of Bednaryczk Farms. A Violation Notice (VN) will be sent to document the violation.

V. TESTING/SAMPLING

NA

VI. MONITORING/RECORDKEEPING

SC No. 1 requires the permittee to keep records of the date, duration, and description of any malfunction or spill occurring from EU-AMMONIA. It is my understanding that they have not had any malfunctions or spills dealing with the ammonia tank.

SC No. 2 requires the permittee to keep, in a satisfactory manner, records of the annual review and

approval of the emergency response plan with the local fire department. As mentioned earlier in this report, I was informed that they have communicated with their local fire department each year, but have not kept written records to document this. I advised that they keep written records, from this point forward.

VII. REPORTING

SC No. 1 requires the permittee to contact the Pollution Emergency Alert System (PEAS) telephone number (1-800-292-4706), or the AQD District Supervisor immediately, if there is an abnormal release. It is my understanding that they have not had any abnormal releases.

VIII. STACK/VENT RESTRICTIONS

NA

IX. OTHER REQUIREMENTS

SC No. 1 prohibits the permittee from replacing or modifying any portion of EU-AMMONIA, or installing new equipment, unless conditions (a), (b), and (c) are all met. The three conditions require that the general permit be updated, that the permittee continue to meet all general permit applicability criteria, and that the permittee keep records of the date and description of any replacement, modification or installation of new equipment. It is my understanding that they have not modified any portion of EU-AMMONIA, and that nothing has been replaced, other than the required replacement of hoses and/or valves, which would not trigger the need to update the permit.

Conclusion:

I left the site at 12:43 PM. The anhydrous ammonia tank and the associated handling equipment were very well maintained. The single instance of noncompliance that I could find was that there was no sign with emergency phone number as required by SC No. IV. 7. A Violation Notice (VN) will be sent. Members of Bednaryczk Farms have already discussed with me the corrective action they will take. Rodney Bednaryczk indicated a photo of the completed sign will be sent to AQD, as part of a response to the letter.

NAME _____ DATE 9/15/2016 SUPERVISOR _____