

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

P062932320

<b>FACILITY:</b> HENNEY FARMS		<b>SRN / ID:</b> P0629
<b>LOCATION:</b> 12711 ROUND LAKE RD, SUNFIELD		<b>DISTRICT:</b> Lansing
<b>CITY:</b> SUNFIELD		<b>COUNTY:</b> EATON
<b>CONTACT:</b> Deb Henney , Owner		<b>ACTIVITY DATE:</b> 11/20/2015
<b>STAFF:</b> Michelle Luplow	<b>COMPLIANCE STATUS:</b> Compliance	<b>SOURCE CLASS:</b>
<b>SUBJECT:</b> Unannounced, scheduled compliance inspection with recently issued PTI No 125-15.		
<b>RESOLVED COMPLAINTS:</b>		

Inspected by: Michelle Luplow (author) and Nathan Hude (LDO inspector)  
Personnel Present: Brian Henney, owner (dhenney2009@hotmail.com)

**Purpose:** Conduct an unannounced, scheduled compliance inspection by determining Henney Farms' compliance with Permit to Install (PTI) No. 125-15 for Anhydrous Ammonia Storage and Handling. This will be the first time the facility has been inspected since the permit was issued on September 4, 2015.

**Facility Background/Regulatory Overview:** Henney Farms is a private company who applies anhydrous ammonia to their own farmland. The PTI special conditions are created based on consideration of Best Available Control Technology for toxics (T-BACT), the American National Standard (ANSI) for Safety Requirements for the Storage and Handling of Anhydrous Ammonia, and MIOSHA requirements summarized in the Department of Labor and Economic Growth General Industry Safety Standards, Part 78 for Storage and Handling of Anhydrous Ammonia (1910.111). The Air Quality Division (AQD) was made aware of this tank installation after I received a confidential complaint that the tank had been installed without a permit. Concern was raised that the tank was too close to neighboring residences and may not be filled in a proper or safe manner. A violation notice was not issued.

Brian Henney, owner of Henney Farms, per request of AQD, submitted a PTI application within two weeks of being notified that a PTI was necessary for the installation of an anhydrous ammonia tank. He said he had bought the tank through Citizen's Vermontville, who had told him that an air permit was not required prior to installation. AQD required that Henney Farms have an emergency response plan, reviewed and signed by the local fire department, included in the PTI application to ensure that safety concerns from an emergency standpoint had been addressed.

**Inspection:** This was an unannounced compliance inspection. At approximately 9:30 a.m. on November 20, 2015 N. Hude and I arrived unannounced and met with Brian Henney. I explained we were there to inspect the anhydrous ammonia tank for compliance with the permit. During the previous complaint investigation/self-initiated inspection I had provided B. Henney with a DEQ "Environmental Inspections: Rights and Responsibilities" brochure to illustrate a typical inspection procedure/what can be expected from an inspection.

B. Henney said that they only use anhydrous ammonia approximately 4 days out of the year and that approximately a week after I had been there (June 9, 2015) they were done using the anhydrous ammonia. During the inspection, I noted that the anhydrous ammonia tank was empty. B. Henney said that their planting season is only in the spring and they start the season usually in June.

B. Henney keeps a 75 gallon bin onsite for use as safety water in the event of exposure to the anhydrous ammonia.

#### **EU-AMMONIA – Special Conditions (SC)**

PTI No. 125-15 is for a single anhydrous ammonia tank with no more than a 30,000 gallon capacity and any associated nurse tanks. The tank, according to the PTI application, is 17,950 gallons. B. Henney said he owns 6 nurse tanks that are stored 12 miles away at another farm.

#### **Process/Operational Restrictions**

##### **SC III.1**

A copy of the "Part 78, Storage and Handling of Anhydrous Ammonia" (MIOSHA 1910.111) must be maintained, according to this condition. I will follow up on this item again when I return to inspect the site in the spring.

This condition also requires compliance with the Michigan Department of Labor regulations as defined in the American National Standards Institute (ANSI) manual K61.1-1972 (second edition). The most recent updated version of this ANSI standard is K61.1-1999 (fifth edition). I will work with Henney Farms in the follow-up inspection in June 2016 to ensure that compliance with these regulations are also met.

##### **SC III.2**

According to this condition, the permittee must implement and maintain the inspection and maintenance program specified in Appendix A of the permit for the nurse and permanent storage tanks. Permanent storage tanks must be inspected at least twice per year, prior to spring and fall application seasons (as stated above, Henney Farms' season starts in June, and only has the

spring application season). Because the permit was issued after Henney Farms' planting season had ended we decided to inspect Henney Farms again in June when they've had a chance to inspect their tanks prior to the spring planting season.

### **SC III.3**

Henney Farms is required under this condition to have an emergency response plan, to be followed in the event of an emergency, which has been approved by the local fire department or county emergency response agency and has been implemented and maintained. I required that the approved emergency response plan be included in the PTI application for the application to be determined complete (attached). Sunfield Fire Department's Michael Haskin reviewed and approved of the emergency response plan on June 17, 2015. The plan addresses notifying nearby residences of any releases. I reminded B. Henney that this plan should be updated on an annual basis, if needed, and should be reviewed by the fire department prior to the start of every spring season. Henney Farms is in compliance with this condition at this time.

### **SC III.4**

This condition addresses setback distances from the tank to the property line, nearby residents, hospitals, schools, apartments and nursing homes. Because the tank had already been installed, the general permit to install condition of 300' setback from residences did not apply. The permit was written, therefore, at the actual setback distance of the tank from the nearest neighboring resident: 250'. N. Hude and I borrowed Water Resource Division's measuring wheel to verify that the distance from the tank to the resident was at least 250'. The measured distance was 249.7' and is considered to meet the 250' setback requirement established in the permit. Based on Google maps, the anhydrous tank is also greater than the 50' setback distance from the property line, as required in the permit. There are no schools, apartments, hospitals or nursing homes within a 2 mile square radius. Henney Farms is in compliance with the setback distances at this time.

### **SC III.5**

Henney Farms is required to conduct all transfer operations using a person that is properly trained and made responsible for proper compliance with all applicable procedures. B. Henney said that WJ Stafford of S&F Propane, located in Richland, MI (Kalamazoo County) transports and transfers anhydrous ammonia into his storage tank. I contacted S&F Propane and spoke with Jodi Stafford, who verified that they were the transporter/transferees of anhydrous ammonia for Henney Farms and that their staff are trained for anhydrous ammonia transport/transfer via the Certified Education Training Program (CETP), of the Michigan Propane and Gas Association and National Propane Association. Henney Farms is in compliance with this condition at this time.

### **SC III.6**

As mentioned, the 6 nurse tanks are currently stored empty 12 miles away at another farmer's property for the winter. In June 2016 when I return to do an inspection I will check to ensure that nurse tank storage on Henney Farms property is within the required setback distances laid out in this condition.

### **SC III.7**

All nurse tank filling is required to be done only from the permanent storage tank. Although transfer operations were not currently taking place during the inspection, B. Henney showed me where the bulkhead of the permanent storage tank was and that the nurse tanks are filled from that point. Henney Farms is currently in compliance with this condition.

### **SC III.8**

Nurse tanks are only allowed to be filled up to 85% and permanent, uninsulated storage tanks up to 87.5% (per Rule 7801(b) (11)). The permanent storage tank was empty, and according to B. Henney, the nurse tanks were also empty during the time of inspection. When I return in June I will verify that all tanks are filled to their appropriate levels. Henney Farms is in compliance with this condition at this time.

### **SC III.9**

Vapor return lines (yellow pipes) are utilized when the nurse tanks are being filled, as well as when the transport truck is filling the permanent storage tank. Henney Farms is in compliance with SC III.9.

### **SC III.10**

Henney Farms is not allowed per this condition to add nitrogen stabilizers to the permanent storage tank. B. Henney verified that no nitrogen stabilizers are added to the anhydrous ammonia in the permanent storage tank.

## **Design/Equipment Parameters**

### **SC IV.1**

A safety relief valve is required to be installed with a manufacture date stamp so as to establish the replacement date of the valve (permit requires replacement every 5 years). Henney Farms' permanent storage tank has a safety relief valve that is located on the top of the tank. B. Henney said that he purchased a brand new valve for the past spring season, but has removed the valve for the winter months. He will reinstall it before the spring season in June and I will verify at that time that the valve has a manufacture date stamp.

### **SC IV.2**

A remotely operated internal or external positive shut-off valve must be installed to allow for emergency shut-off of all flow from the permanent storage tank. B. Henney showed N. Hude and I the cord that has been installed at the bulkhead, where when hit, shuts off the flow in the event of an emergency. Henney Farms is in compliance with SC IV.2.

**SC IV.3**

This condition requires that a bulkhead, anchorage, or equivalent system be used at the transfer area so that any break resulting from a pull will break at a predictable location. There is a bulkhead present through which the liquid and vapor lines run and through which the nurse tanks are filled and the permanent storage tank is filled. Henney Farms is in compliance with SC IV.3.

**SC IV.4**

Excess flow valves are required to be installed on the main container side of the bulkhead for the vapor lines. Additionally, back pressure check valves are required to be installed in the liquid lines of the transport transfer area. I will verify in June 2016 whether these valves had been installed.

**SC IV.5**

Hoses are required to be replaced 5 years after the date of manufacture. There were no hoses present on the tank during the inspection. B. Henney said he removes the hoses for the winter and then reinstalls them when the spring planting season starts. I will verify the dates of the hoses during the June 2016 inspection.

**SC IV.6**

All vapor or liquid lines required to be vented after anhydrous ammonia transfer are to be vented into 55 gallons minimum of water. B. Henney explained that none of the vapor and liquid lines need to be vented after transfer. There is a coupling which he says he releases pressure from but that it is only a small spurt. Couplings are excluded from this requirement. Henney Farms is in compliance with SC IV.6 at this time.

**SC IV.7**

A sign is required to be conspicuously placed at the entrance of the facility with emergency contact information containing the owner, primary operator, local and state police, local fire department and ambulance service. While this sign was not present anywhere on the property, it is acceptable by the AQD that Henney Farms place a sign prior to their spring planting season. There was no anhydrous ammonia in the tank when the permit was issued and therefore there is no potential hazard until the permanent storage tank is filled. I will verify that the sign is placed in a conspicuous location during the follow-up inspection in June 2016.

**Monitoring/Recordkeeping****SC VI.1**

Records of date, duration and description of any malfunction or spill from the permanent storage tank, including estimated amount released must be kept. To date there have been no malfunctions or spills from Henney Farms' anhydrous ammonia tank. Henney Farms is in compliance with SC VI.1.

**SC IV.2**

Henney Farms is required to keep records of the date of annual review and approval of the emergency response plan. Their first plan was approved on 6/17/15. During the June 2016 follow-up visit I will verify that the fire department has approved the plan for the 2016 spring plant season as well. Henney Farms is in compliance with SC VI.2.

**Compliance Statement:** At this time, Henney Farms is found to be in compliance with conditions state and federal regulations at this time. A follow-up inspection will occur in June 2016 for any outstanding compliance checks.

NAME M. M. Lyden

DATE 12-2-15

SUPERVISOR B. M.

