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# DEPARTMENT OF ENVIRONMENTAL QUALITY AIR QUALITY DIVISION

**ACTIVITY REPORT: Scheduled Inspection** 

2002030209				
FACILITY: Fowler's Farm-City Sa	ales	SRN / ID: P0528		
LOCATION: South Algers and W	ashington, ITHACA	DISTRICT: Lansing		
CITY: ITHACA		COUNTY: GRATIOT		
CONTACT: Russell Fowler, Own	ner	ACTIVITY DATE: 06/24/2015		
STAFF: Michelle Luplow	COMPLIANCE STATUS: Pending	SOURCE CLASS: MINOR		
SUBJECT: Scheduled compliand deficiencies.	e inspection of the anhydrous ammonia tank and its	permit conditions. Special attention was paid to past		
RESOLVED COMPLAINTS:				

Inspected by: Michelle Luplow

Relevant Personnel: Russell Fowler, Owner & Operator (2876 W. Washington Rd, Ithaca, MI 48847)

Purpose: Conduct an unannounced, scheduled compliance inspection by determining compliance with Fowler's Farm City Sales' Permit to Install (PTI) No. 357-77 for anhydrous ammonia storage and handling. The source was last inspected in July 2014, at which time I found multiple violations of permit conditions. A violation notice was issued August 21, 2014 for the noncompliance issues, and a violation response letter was received from R. Fowler on September 15, 2014. The only item that was not addressed in the violation notice response letter was drafting an emergency response plan and receiving approval of the plan by the local fire department. On October 23, 2014 I sent R. Fowler a letter detailing what should be encompassed in an emergency response plan and requested a plan be submitted to me by December 1, 2014. An emergency response plan was not received. On March 3, 2015 I sent R. Fowler the same letter, outlining what should be encompassed in an emergency response plan and also attached an MSU Extension E-2575 "Emergency Planning for the Farm" as an example Emergency Response Plan to assist him. I requested an emergency response plan be submitted by April 3, 2015. An emergency response plan was not received. This inspection focused primarily on ensuring that all items discussed in the response letter had been completed and to make a third attempt at getting an emergency response plan drafted and approved by the local fire department.

Facility Background/Regulatory Overview: Russell Fowler said that Farm City Sales purchases anhydrous ammonia from The Andersons to fill their 18,000 gallon permanent storage anhydrous ammonia tank, which is located at the intersection of Washington and Alger Roads in Ithaca. A phone pole located nearby had an address sign of "2680." He then distributes the anhydrous ammonia to local farmers using his own fleet of nurse tanks.

Inspection: This was an unannounced, scheduled compliance inspection. At approximately 9:45 a.m. on June 24, 2015 I arrived at the anhydrous ammonia tank's location at the cross-streets of Alger and Washington. Attached are the June 24, 2015 photos taken of the anhydrous ammonia tank and its immediate surroundings. R. Fowler was not present at his store on June 24, 2015. I returned again on July 2, 2015 at 10 a.m., but he was also not in this day. I gave the employee attending the store a blank copy of the MSU Extension "Emergency Planning for the Farm" to serve as R. Fowler's template for his own emergency response plan, a printed out Google Maps aerial view of the tank and surrounding residences for him to include in the emergency response plan, and copies of the violation notice and his response. These I requested be provided to R. Fowler upon his return.

At the previous inspection, R. Fowler explained that his anhydrous ammonia loading season runs from approximately the 10<sup>th</sup> of April through the 4<sup>th</sup> of July. He said after the loading season is complete he removes the transfer hoses.

#### PTI 357-77

This permit is for the installation and operation of a 12,000 – 30,000 gallon permanent storage anhydrous ammonia tank. R. Fowler currently has an 18,000 gallon tank located on his property.

Currently the permanent storage tank is protected by a guardrail barrier from road traffic and from customers. R. Fowler also said that he dug a trench just inside of the property, near the road, to prevent drunk drivers driving straight into the permanent storage tank from Alger Rd. He explained that a drunk driver had crashed into the field some years back, but had only knocked over a nurse tank.

Although not required by the current permit (only required by the "new" AQD general permits to install for anhydrous ammonia tanks) R. Fowler has kept the hoses used for anhydrous ammonia transfer up-to-date. The current hoses are marked with an installation date of 2013 and a replacement date of 2019.

The tank employs electric vapor pumps which R. Fowler explained are used to force liquid from the permanent storage tank to the nurse tanks.

The following is a list of items that were out of compliance during the last inspection:

- The permanent anhydrous ammonia tank was not labeled "Anhydrous Ammonia" and should have been labeled in this fashion a minimum of 2 sides of the tank
- · An emergency contact sign containing names and phone numbers of all managers/operators of the tank, the fire

department, and police department, should have been present at the site

- A 55 gallon water container for venting of the anhydrous hose and another container used for safety water for flushing body areas should have been present during anhydrous ammonia tank operation
- Personal protective equipment should be available
- The tank should be painted a reflective color
- The source needs an emergency response plan developed and implemented, and approved by the local fire department on an annual basis

In the September 4, 2014 violation response letter, R. Fowler stated the following:

- Calls were made to get the anhydrous ammonia tank sandblasted and painted
- Calls were made to get prices on getting a sign made
- He currently has a 55 gallon container for both the safety water and the venting of the anhydrous ammonia hose and he said he would use these
- He said he ordered a face mask for personal protective equipment
- Nothing was mentioned about addressing the emergency response plan

Looking at the June 24, 2015 inspection photos, the following items were noted:

- The anhydrous ammonia tank was not labeled with "Anhydrous Ammonia"
- There was no emergency contact sign on the property
- The only 55 gallon container was the container present during the 2014 inspection which has holes in the bottom and needed to be replaced
- Half the anhydrous ammonia tank (the side facing the road) was painted white
- The hoses were generally kept off the ground, but one of the hoses near the anhydrous nurse tank could have been handled more carefully by increasing the distance between where the hose is sitting on the ground and the nurse tanks that are present (to prevent accidental release)

I called R. Fowler on July 6, 2015 to discuss my findings and deliver a course of action. We discussed the violation notice and what was expected of him based on his response letter.

R. Fowler said that the reason only half of the tank was painted is because the weather started to get bad last fall and the project could not be completed. Because the tank did not get completely painted the "Anhydrous Ammonia" labels (which he said he has in his possession) were not put on the tank. He said that he ordered more paint to finish the tank "last week," indicating that paint was ordered during the week of June 24, the week that I had been out there for an inspection.

He said that the reason why the emergency contact sign was not made, thus not posted on the anhydrous ammonia tank property, is because of cost to get one professionally made. I explained to him that he could make a sign using plywood, white paint with red or black lettering, hand-made. He indicated that this could be done.

He said he does have plastic 55 gallon tubs that he uses for the safety water. He explained that he brings this tub over to the tank whenever he's loading out anhydrous ammonia. For the venting of the anhydrous ammonia lines he said that he vents into water contained in a 5 gallon pail which he places within the metal 55 gallon tub that is located at the site. I explained that there must be two 55-gallon tubs present: one for safety water and one for the venting of the lines. He said that he does not leave the tubs there because they would likely get stolen and I told him that this is fine as long as he is using both when operating the anhydrous ammonia tank.

He said he was currently working on filling out the "Emergency Planning for the Farm" document I had left with his employee last week. I told him once this is completed he will also have to contact the local fire department and having them sign saying that they have reviewed and approved the plan for this year, and that here on after, this approval process must occur annually.

We agreed on July 27<sup>th</sup> as the date that he would have the anhydrous ammonia tank painted and labeled, have an emergency contact sign completed, and have the emergency response plan completed. I told him that if he needs more time, he should contact me prior to this date. I plan to inspect the site again after this date. If the above deficiencies are not addressed a violation notice will be issued.

Compliance with the remaining PTI conditions are addressed below:

#### Condition 2

Although there were no transfer operations being conducted, R. Fowler verified that when transfer operations occur, vapor return lines are used. Condition 2 requires vapor return lines be used during ammonia transfer operations. Fowler's is in compliance with this condition.

# Condition 3

Except during transfer operations, all valves on all tanks shall be closed. While onsite, I verified that all valves are closed. Most of the valves also have mechanisms that allow R. Fowler to padlock the valves so that unauthorized access would be less likely to occur. Fowler's is in compliance with this condition.

## Condition 4

Condition 4 requires that the main shut-off valve, which at Fowler's is located on the cement bulkhead, is required to be locked

when not being used during transfer operations. The main shut off valve was locked. Fowler's is in compliance with this condition.

## **Condition 5**

R. Fowler said he is the one that does the transfer operations and that he has been doing anhydrous ammonia transfer since he was a teenager working for his father, previous owner Gene Fowler, I considered him to be a reliable person properly instructed to perform anhydrous ammonia transfer procedures. Fowler's is in compliance with this condition.

#### Condition 6

Nurse tanks are required to be filled only from the main storage tank. R. Fowler verified that this is the case. Fowler's is in compliance with this condition.

#### **Condition 8**

This condition 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). The following are ANSI standards that apply to this location with their associated status of compliance:

#### ANSI K61.1-1999 Section 3.4

Fowler's is required to have the following items on-hand for emergency and rescue purposes:

(3.4.1.1)Two full-faced gas masks jointly approved by NIOSH and MSHA, each with one spare canister in a readily accessible location, OR two high visibility full head hoods each with a minimum of 5 minute pressurized air supply (this includes full face respirators or self-contained breathing apparatuses as alternatives)

(3.4.1.2)One pair of protective gloves impervious to ammonia

(3.4.1.3)One pair of protective boots impervious to ammonia

(3.4.1.5) Easily accessible emergency shower and a plumbed eyewash unit or at least 100 gal of clean water in an open top container

(3.4.1.6) Chemical splash goggles

Section 11.6 on safety equipment also states that "Any person making, breaking or testing any ammonia connection, transferring ammonia, or performing maintenance or repair on an ammonia system under pressure shall wear protective gloves impervious to ammonia and chemical splash goggles. A full face shield may be worn over the goggles, but the face shield shall not be worn as a substitute for a primary eye protection device (goggles)."

R. Fowler now has a face shield, in addition to protective gloves which he had at the prior inspection. He said the safety water is also present onsite during transfer. Fowler's is in compliance with this condition.

#### ANSI K61.1-1999 Section 6.4 – Installation of storage containers

According to 6.4.1 the aboveground containers should be reinforced with concrete footings and foundations or structural steel supports mounted on reinforced concrete, and the lowest point of the tank should not be less than 18 inches above ground. Fowler's permanent storage tank has concrete footings and the distance between the ground and lowest point of the tank is greater than 18 inches. Fowler's is in compliance with this ANSI standard.

#### Condition 9

Fowler's is required to have a caution sign ("Do not start vehicle engine until hoses are disconnected") on the pulling vehicle's windshield or steering wheel, or remove keys from the customer's truck completely, and also have a wheel chock in place for each wheel on the pulling vehicle. Filling operations were not being conducted during the inspection, therefore I could not verify compliance of this condition at the time.

## **Condition 12**

A mechanically operated positive shut-off valve is required to be installed on the main storage tank liquid lines to regulate the rate of the liquid release. R. Fowler showed me the shut-off valve which is located directly under the tank itself and through which the liquid lines can be opened or closed. Fowler's is in compliance with this condition

#### Condition 13

Opacity is limited to 20%. I saw no signs of opacity during the inspection. Fowler's is in compliance with this condition.

At this time, Fowler's Farm-Services Sales is found to be incompliance with the conditions of their PTI for Anhydrous Ammonia Storage and Handling, pending future investigation after July 27, 2015. NAME MINUM Supervisor DATE 7-20-15 SUPERVISOR DI

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