United States Environmental Protection Agency
Region VI
POLLUTION REPORT

Date: Thursday, May 7, 2009
From: Gary Moore

Subject: Norphlet Chemical Inc.
600 MacMillian Road, Norphlet, AR
Latitude: 33.3093000
Longitude: -92.6560000

POLREP No.:	6	**Site #:**	A6N8
Reporting Period:		**D.O. #:**	
Start Date:	4/16/2009	**Response Authority:**	CERCLA
Mob Date:	4/16/2009	**Response Type:**	Emergency
Demob Date:		**NPL Status:**	Non NPL
Completion Date:		**Incident Category:**	
CERCLIS ID #:		**Contract #**	
RCRIS ID #:			

Site Description

Norphlet Chemical Inc (NCI) is located in Norphlet, AR which is just outside El Dorado, AR at the location of the former Macmillan Oil Refinery (a previous Non-NPL Superfund Removal). NCI was a chemical manufacturing facility in business to produce the refrigerant (HFC 134a) used in automobiles. The primary raw materials used for producing this product are Anhydrous Hydrogen Fluoride, Trichloroethylene, and a catalyst. The company attempted to produce the intended product but was unable to do so. In September 2008, the company laid off all of its employees.

EPA became aware of this facility in March 2009 while in the process of setting up a Risk Management Plan (RMP) inspection. The EPA immediately informed the ADEQ. EPA offered its assistance if deemed necessary by the ADEQ.

On March 11, 2009, ADEQ conducted a site inspection at Norphlet Chemical. The ADEQ inspection noted corrosion on the relief valves for the hydrofluoric acid tanks. ADEQ also noted activity at the site including employees of Jones-Hamilton actively assisting with the removal of chemical product from the site. During the site inspection, ADEQ spoke to a member of the Norphlet Chemical Board of Directors as well as the former plant manager who described the facility processes.

On April 15, 2009, DHS conducted an Infrastructure Protection Inspection of the facility and was alarmed with its condition and the fact that it was abandoned by NCI. DHS contacted EPA about their concerns with the site. The major concern was that the abandoned site had containers of Anhydrous Hydrogen Fluoride (AHF) and mixtures of AHF, TCE, and intermediate refrigerants in tanks deemed to be in poor condition by DHS. The EPA notified ADEQ about the DHS interest in the site.

On April 16, EPA participated in a conference call with DHS and Federal, State, Local, and other representatives concerning the site. Following this call, EPA received a request from ADEQ to address the situation at the site. EPA dispatched it START Contractors to begin air monitoring. EPA OSC Jones arrived on-site on Friday, April 17, 2009 and met with Federal, State, County, and City officials and evaluated the site. OSC Jones determined that an Imminent and Substantial Endangerment existed as a result of the abandonment of the facility, the conditions of the tankage, and the close proximity of the school and surrounding residents to the facility. On April 16, 2009, Union County Judge Bobby Edmonds declared an emergency. Because of the emergency order and the close proximity of the site to the school(s), the school elected to close on Friday, April 17.

There are 5 tanks of immediate concern that will be addressed by the EPA. These tanks are as follows:

o Tank TT10 (13,800 gallon capacity) - 13,400 gallons of a liquid mixture; 75% AHF and 25% TCE and intermediate refrigerants;
o Tank TT11 (13,800 gallon capacity) - 10,849 gallons of a liquid mixture; 4% AHF and 96% TCE and intermediate refrigerants;

o Tank TT13 (11,550 gallon capacity) - NaF (4500 pounds) and 2,000 gallons of a AHF;
o Tank TT02 (18,213 gallon capacity): Approximately 2000 gallons of TCE;
o Tank TT01 (42,000 gallon capacity): 7,800 gallon of 98% AHF

The site has other areas of concern where chemicals are stored or possibly remain. They include: lab, warehouse, plant area, and piping.

Current Activities

On April 19, 2009, EPA attempted to transfer material from TT11 into a tanker truck. In order to accomplish this, piping was removed from the tanks to allow the connection of a pump and hoses. The transfer operation failed due to pump failure as a result of vapor expansion which damaged the teflon diaphragm allowing pass through of material to the dry side. The system was isolated and shut down immediately. There were no injuries or significant releases of material. Additionally, the SRV's on the trucks were set to low for the pressures that existed on the tanks. The trucks were released.

The EPA and its contractors searched and contacted numerous companies about containers and tankers that would hold this material with SRVs set in the 100 to 150 psig range. Most companies did not want to carry this material as they were concerned about potential moisture issues associated with the materials and damage to their containers.

The issue with the pressures is associated with the refrigerant intermediates within the waste stream. The EPA has located companies willing and capable in assisting us in transporting and storing this material. EPA requested and obtained a DOT exemption for use of a specialty tanker used to carry dinitrogen tetroxide and hydrazine for NASA and DOD. It is listed as a MC338 but does not exactly meet those specifications.

On April 24, 2009, ultrasound tests were conducted on the tanks containing the AHF and AHF mixtures. The tests indicated a critical area on tank TT-13 and an area of concern on tank TT-10.

On April 25, 2009, EPA completed constructing a dry lime scrubber with carbon filter out of a frac tank and two totes. The frac tank contains approximately 10 feet of dry lime to scrub the AHF and carbon to scub the organics.

On April 26 2009, EPA completed cleaning out the original tanker truck used for the first transfer attempt. The material in the truck was neutralized with a lime slurry. This truck will be released on April 27, 2009.

On April 26, 2009, TT13 was scrubbed through the scrubber to reduce the pressure on the tank. The pressure was reduced to 20 psig. It is now ready for transfer.

On April 28, 2009, the Solvay railcar was delivered for transfer of the pure AHF

On April 30, 2009, EPA transferred the contents of TT13 into a tanker with no incident.

On May 2, 2009, EPA completed vapor/vent system for Tank TT11. Vapor/vent system will be processed through site scrubber system. Completed installation of proper valve connections on railcar to facilitate transfer of AHF from Tank TT01 into railcar.

On May 3, 2009, EPA completed transfer of approximately 8,073 gallons of AHF material from Tank TT01 into Solvay railcar.

On May 4, 2009, EPA transferred approximately 18,000 pounds (2,230 gallons) of material from Tank TT10 into one JB Kelly Tanker. EPA continued to vent Tank TT11 and process vapor through scrubber system.

On May 5, 2009 EPA transferred approximately 54,100 pounds (6,700 gallons) of material from Tank TT10 into a total of three (3) JB Kelly Tankers. EPA continued to vent Tank TT11 and process vapor through scrubber system.

On May 6, 2009, EPA completed the removal and transfer of liquid material in Tank TT10. Approximately 11,300 pounds (1,400 gallons) of material was transferred from Tank TT10 into one JB Kelly Tanker. 4,000 gallons of Trichlorethylene was transferred from Tank TT44 and transported off site to Blentech Corporation in Houston, Texas.

Planned Removal Actions

The EPA plans to address the emergency conditions at the site which include the contents of the 4 Anhydrous Hydrogen Fluoride tanks and TCE tank. The plans are to give the pure AHF and TCE for reuse. The remaining 3 tanks include AHF mixtures which will require disposal.

The ADEQ has requested EPA assistance to address the remaining portions of the site, which include, lab, warehouse, piping, and other miscellaneous containers located on the site. The EPA is in discussions with ADEQ on these remaining items.

Next Steps

The EPA contractors have constructed a scrubber system that has been added as a pretreatment scrubber for the existing facility scrubber. The scrubber is designed to scrub vapors from transfer operations.

EPA has completed the transfer of liquid material from Tanks TT01, TT10 and TT13. The EPA intends to begin the transfer of liquid material in TT11 on Thursday, May 7, 2009.

The EPA is currently reviewing disposal bids to determine where the waste will go for disposal.

The EPA will continue to work closely with the local officials for notifying the public of transfer operations.

EPA will continue to conduct real time air monitoring and sampling activities as necessary until AHF and AHF mixtures are removed.

Key Issues

The facility is located adjacent to a K - 12 school, park, and residents.

This is a serious situation as the facility is abandoned and the company is defunct.

Kenny Harmon, ADEM, has been very helpful in arranging for EPA to use State of Arkansas scales and obtaining firefighting equipment from the Camden Fire Academy.

The former plant manager, Vic Forte, is assisting EPA and its contractors in understanding the facility and its operations.

The EPA is having difficulty finding treatment and disposal companies immediately capable of handling this waste stream. As a result, the tankers being used for transportation will also be used for storage which significantly increases the cost of the response action.

The EPA also had similar difficulty obtaining tankers for this material.

response.epa.gov/Norphle_tChemical_Inc