

United States Environmental Protection Agency
Region VI
POLLUTION REPORT

Date: Friday, April 24, 2009

From: Gary Moore

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

POLREP No.:	4	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 outside El Dorado, AR at the location of the former Macmillan Oil Refinery (a previous Non-NPL Removal Action). NCI is a chemical manufacturing facility in the business of producing a refrigerant (HFC-134A) used in automobiles. The primary raw materials used for producing this product is 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 and immediately informed the ADEQ. EPA offered its assistance if deemed necessary by the ADEQ.

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. 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 addition, the condition of these containers were questionable. EPA and DHS contacted State authorities and participated in a call concerning the site.

On April 16, 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) - 13,000 gallons of a liquid mixture; 75% AHF and 25% TCE and intermediate refrigerants;
- o Tank TT11 (13,800 gallon capacity) - 11,000 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 this material. EPA has requested an 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 scrub 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.

Planned Removal Actions

EPA is awaiting delivery of the railcar and tanker trucks for the transfer operations. The railcar is expected to be delivered April 27. The first tanker is to be delivered on Tuesday with the others being delivered on Wednesday through Friday. We anticipate conducting the first transfer on Tuesday or Wednesday.

Next Steps

EPA and its Contractors will transfer materials from the tanks when railcar and tankers are delivered.

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.

The former plant manager, Vic Forte, is assisting EPA and its contractors in understanding the facility and its operations. It is EPA's understanding that Mr. Forte has been overseeing the facility at his own expense since it was abandoned in September 2008. This assistance has been very helpful to response operations.

response.epa.gov/Norphle_tChemical_Inc