United States Environmental Protection Agency
Region VI
POLLUTION REPORT

Date: Wednesday, September 23, 2009
From: Bill Rhotenberry, OSC

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

POLREP No.:	16	**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. On April 15, 2009, 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 their 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, the school was closed on Friday, April 17.

EPA mobilized their ERRS Contractor and began transferring the AHF mixtures from the onsite tanks into tanker trailers which would be shipped offsite for disposal.

Current Activities

From August 8 through August 18, 2009 one JB Kelley Tanker and two Dana Tanker Trailers were shipped to Veolia Technical Solutions in Port Arthur, Texas for disposal. During this period, a total of 46,140 pounds of HF contaminated waste was disposed of at the Veolia facility. In all, a total of eight tanker trailers of HF contaminated waste were shipped off site for disposal with a total of 150,480 pounds of HF contaminated waste. In addition to the eight tankers which shipped waste to Veolia there were an additional two tankers (1 JBK and 1 Dana) onsite which underwent transfers due to faulty valves. These two tankers brought the total number of trailers to be decontaminated to ten.

EPA and contractors remobilized to the Norphlet site on August 6, 2009 and began decontamination

activities. Extensive decontamination procedures were conducted on each trailer, which included the following; purging each trailer with nitrogen, rinsing with 1000 gallons of water, filling each tanker completely full with a hydrated lime solution and allowing it to soak for 8 hours, then pressure washing the interior of each tanker. Upon completion it was noted that some residual rust and staining remained. An additional decontamination step was added which included using a soda blaster (sodium bicarbonate) that provided a high pressure nonabrasive method of removing the residual rust. After the soda blaster decontamination step only light rust and staining remained.

On August 20, 2009 EPA metallurgists from Baker Engineering and Risk Consultants, Inc. mobilized to the site and manually inspected each of the tanker trailers. A representative piece of metal was cut from the baffle in JBK tanker K805 and a portion of the metal dip tube from Dana Tanker 1190 were submitted to Baker for analysis. Based on the field observations of the metallurgists, it was suggested that two additional steps be added to the decon process. An interior rinse using Chlor-Rid, a stainless steel cleaning compound that removes residual chloride ions was suggested as well as passivation. Passivation dissolves any impurities on the surface of the stainless steel and restores the hard non-reactive surface film that inhibits further corrosion. "Astroglo-P", a nitric acid and hydrofluoric acid based compound was used for passivation activities. From August 21 through August 31, 2009, each of the empty tanker trailers onsite were cleaned with Chlor-rid solution and passivated with Astroglo-P.

On September 1 2009, EPA subcontractors Alltech Inspection conducted internal thickness testing on each of the nine fully decontaminated trailers. Each tanker was tested for thickness at seventy-five independent points within the tanker. Alltech testing results indicated that each tanker met existing engineering guidelines for metal thickness. On September 2, 2009, the Baker metallurgist returned to the site and conducted a follow-up visual inspection of each tanker. EPA is currently awaiting the final report of the metallurgy inspection and metal sample analysis.

On September 3, 2009, EPA subcontractor (EQ Industrial Services) transported approximately 555 pounds of lab pack waste from the Norphlet Chemical laboratory to the disposal facility in Tampa, Florida.

EPA and contractors demobilized from the site on September 3, 2009, to await the return of the final tanker (Dana #1301) from Veolia. Dana #1301 contains hydrofluoric acid and sodium fluoride. EPA and Veolia anticipated that the disposal facility would not be able to off load the sodium fluoride solids. Dana tanker #1301 was returned to site on September 15, 2009 with approximately 14,840 pounds of HF saturated sodium fluoride. EPA and contractors remobilized to the site on September 14 for final tanker decon activities. Due to the solidified sodium fluoride and residual HF material, the tanker posed extensive technical difficulties for decontamination. Additional manpower and equipment was required to remove the material. Upon removal, the same decon steps were followed as described for the other tankers.

Next Steps

No additional site activities are scheduled once decontamination operations are completed.

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