

United States Environmental Protection Agency
Region IV
POLLUTION REPORT

Date: Wednesday, May 30, 2007

From: Matthew Huyser

Subject: Initial POLREP - Removal Site Evaluation

Payne Road Solvents

107 Payne Road, Bessemer City, NC

Latitude: 35.2678000

Longitude: -81.3206000

POLREP No.: 1

Site #: A4MN

Reporting Period: May 2006 to February 2007

D.O. #:

Start Date: 6/12/2006

Response Authority: CERCLA

Mob Date: 6/12/2006

Response Type:

Demob Date: 2/1/2007

NPL Status:

Completion Date:

Incident Category: Removal Assessment

CERCLIS ID #:

Contract #

RCRIS ID #:

Site Description

In February, 2001, NCDENR discovered the presence of Chlorinated Solvents above drinking water standards in a non-transient community well and ordered a filter system to be installed on the well. According to later sampling events, the filter system was ineffectively maintaining the water contaminants below the MCL. Two other groundwater wells were found to contain Chlorinated Solvents; one well served several businesses and a filter system was installed, the other well showed contaminant levels below the MCL. Approximately 20 residences are located within ¼ mile of the site, and approximately 20 more residences are located slightly further than ¼ mile of the site. Nearly all of the neighboring residences obtained drinking water from private groundwater wells.

Current Activities

Between June 12 and June 14 of 2006, EPA and START visited several residences in the cities of Bessemer City and Kings Mountain, North Carolina, in order to seek approval from property owners to have groundwater wells sampled. On June 19 and June 20 of 2006, a team from EPA's Science and Ecosystem Support Division (SESD) of Athens, GA, visited the residences where access had been obtained and sampled the groundwater wells for chlorinated solvents.

The results of the June 20-21 sampling event showed that Volatile Organic Compounds (VOCs) had been detected in five of the wells that were sampled. The results did not warrant an Emergency Response Action when the measured levels for VOCs were compared to Removal Action Levels for drinking water. The analytical results were delivered to the Agency for Toxic Substances and Disease Registry (ATSDR) for a health consultation; the final draft of the ATSDR health consultation was delivered on August 24, 2006. ATSDR concluded that "the current exposures to VOCs in the well water are unlikely to cause harmful effects in exposed residents."

During the week of January 29, 2007, EPA and SESD collected surface and subsurface soil samples at varying depths from the Site and from surrounding properties in an attempt to determine the source of the contamination; soil samples were analyzed for VOCs and for Metals. Surface soils (0"-6") yielded concentrations of VOCs far below suggested residential soil RALs (Removal Action Levels). Subsurface soils at depths of 3' and 6' feet also yielded concentrations of VOCs far below suggested residential soil RALs. One area of concern yielded of Tetrachloroethene (PCE) at 980µg/kg at a depth of 3 feet. Although below the suggested soil RAL of 48mg/kg, the concentration is still significantly higher than was found in any other sample. Samples taken from the same column at depths of 0"-6" and 6' yielded concentrations of PCE at 5.5µg/kg and 4.5µg/kg respectively. The location of the column is on the Site at 107 Payne Road, approximately 20 feet from the well house between the well and the warehouse building. Analytical results from the well sampling in June, 2006 showed levels of PCE at 53µg/l (above the NC MCL). The well supplies water to two business/warehouse buildings where it is used for toilets and washing only. A filter had been installed at the well but was not being properly maintained. During the January, 2007 sampling event, the owner of this well and the owner of a well across the street (approximately 100-150 feet away) hired crews to attach city-supplied water lines to their buildings. The

wells will remain for groundwater monitoring use.

Chromium was found in the soil on the Site in surface soils (0"-6") at concentrations ranging from 43-93mg/kg. Concentrations of Chromium decreased at a depth of 3' to a range of 40-77mg/kg, and decreased further at a depth of 6' to a range of 21-50mg/kg. Sets of samples taken from a single column yielded decreasing concentrations at increasing depths. All concentrations are below the suggested residential soil RAL as well as below the suggested residential soil PRG (Preliminary Remedial Goal).

Metal detection devices were used to determine the presence and location of any underground storage tanks located on the Site. One UST was found next to the warehouse building and it could be accessed via a metal pipe that protruded approximately 18" from the ground surface. The tank was mostly empty and was sampled using a peristaltic pump and the sample was analyzed in the field to determine the presence of hazardous materials. The sample contained rainwater and a scent of heating oil or kerosene with a pH of 7. No soil samples in the surrounding area yielded results to suggest that the tank was releasing materials or had released materials.

Planned Removal Actions

Currently, the site does not meet the requirements listed in Section 300.415 of the NCP for initiating a removal action. Therefore, no removal action is planned for the site at this time.

Next Steps

Groundwater wells that had yielded VOC levels above MCLs have successfully been connected to a city-supplied water line. Although PCE was found at elevated concentrations at an approximate depth of 3' in one unique location of the site, no explanation has been determined for this result. EPA has advised NCDENR that the remaining groundwater wells should be regularly tested to establish whether the concentrations of contaminants are increasing over time and whether the contamination is migrating. NCDENR will review the findings of the Removal Site Evaluation through the Hazard Ranking System and attempt to establish the site on the National Priorities List.

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