United States Environmental Protection Agency
Region IV
POLLUTION REPORT

Date: Monday, November 26, 2007
From: Leslie Sims

Subject: Removal Assessment - Final POLREP
National Petroleum Packers
3501 Gribble Rd, Stallings, NC
Latitude: 35.0847089
Longitude: -80.6782999

POLREP No.:	1	**Site #:**	A4QL
Reporting Period:	6/27/2007-8/29/2007	**D.O. #:**	
Start Date:	6/27/2007	**Response Authority:**	CERCLA
Mob Date:	6/27/2007	**Response Type:**	Time-Critical
Demob Date:	8/29/2007	**NPL Status:**	Non NPL
Completion Date:	8/29/2007	**Incident Category:**	Removal Assessment
CERCLIS ID #:	NCD986232213	**Contract #**	
RCRIS ID #:			

Site Description

The site is located approximately 15 miles southeast of Charlotte, NC in the Stallings Industrial Park at 3501 Gribble Road, Matthews, Union County, NC. The site coordinates are latitude 35.8431 North and longitude 80.67862 West. It is bordered to the north-northeast by active railroad tracks and the railroad right-of-way; to the east by ITC Millwork, LLC, a customized molding and door manufacturer; to the south by Gribble Road beyond which is Duke Energy; and to the west by Sweep-a-lot, a commercial, industrial parking lot cleaning service. The Union County Tax Assessors office lists the 2.99-acre NPP property zoned for heavy Industry. According to topographic data, the site is located approximately 725 feet above mean sea level (msl). Surface water is inferred to flow in a southern direction towards South Fork Crooked Creek, an intermittent stream located approximately one-half mile south of the site. Approximately one-half of the site is covered with either a structure or concrete with gravel or vegetation covering the remainder of the property. It consists of three buildings (one warehouse and two utility sheds), 27 above-ground storage tanks (ASTs), and a glycol recycling processor. The warehouse is a 10,000 square foot (200-by-50 foot), single story, corrugated steel building with concrete foundation that occupies the southeastern portion of the property. The two cinderblock utility sheds occupy the northeastern portion of the property and are 300 square feet and 4,800 square feet, respectively.

The Natural Resource Conservation Service soil survey lists the soil type at the site as Appling-Urban land (AuB) with a two to eight percent slope. The report also lists the mean annual precipitation to be from 37 to 60 inches, and the mean annual air temperature to be 59 degrees Fahrenheit (º F) to 66º F. The parent soil material is saprolite derived from granite and gneiss or schist, and is a considered a well drained soil. The typical profile is listed as zero to nine inches sandy loam underlined by clay or sandy clay loam. Typical water table is greater than 80 inches below ground surface (bgs). The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (37179C0015 D) does not identify the site in a flood zone. A review of the files provided by the North Carolina Department of Environment and Natural Resources (NCDENR) Division of Waste Management (DWM) and Division of Air Quality (DAQ) indicated that the former NPP facility operated as a recycler of antifreeze and other glycol-related waste products from 1993 to 1998, when the facility shut-down due to a slow-down in business. During its operational history, the facility processed approximately 60,000 liters of waste glycol daily. In May 2000, the facility was purchased at auction by Boulos Family Properties, LLC; however, operations at the facility were never resumed. Previous investigations have noted the presence of numerous drums, ASTs, and other miscellaneous chemical containers located on-site.

Historically, Summit Resource Management, Inc. occupied both 3501 Gribble Road (the site) and 3481 Gribble Road. Products including antifreeze, brake fluid, and windshield wiper fluid were produced at 3501 Gribble Road and distributed through 3481 Gribble Road. In 1993, the property at 3501 Gribble Road was leased to Mr. Chehade Boulos and it became NPP. Based on a NC Superfund Site Inspection dated 1995 and a search of the Integrated Compliance Information System (ICIS), a removal action was performed at the 3481 Gribble Road facility from September 1993 to May 1994 as part of an EPA

Superfund Formal Enforcement. The NC Superfund Site Inspection indicated that the NPP property was in operation and appeared to be in good condition. According to Union County Tax assessor's Office Record of Deeds, Book 1390 Page 118, the site was purchased by the Boulos Family Properties, LLC of 18 Lumsbury Court, Chapel Hill, NC during a courthouse auction on May 3, 2000. Specifically, Mr. Chehade Boulos is listed in the state deed files as the owner/operator of the site. Prior to the property falling into default and being sold at auction, Mr. Robert Schory and Mr. Jerome Dubow owned the site. Mr. Chehade Boulos leased and operated it from 1993 to 1998. Prior to 1993, the property was operated by Summit Resources Management Inc.

In 2005, the NC Superfund Division received a report that the site was not secure and had fallen into disrepair. There was concern that the rusted storage tanks and tanker trucks on-site were at risk of breaching and that the product/waste remaining would be released into the environment and pose a serious threat to human health and the environment. NC Superfund Division contacted the site owners, and the site was secured; however, there was no attempt to repair the deteriorating tanks. In March 2007, NCDENR referred the site to EPA for a removal evaluation.

Current Activities

EPA's START contractor (START) conducted field investigation activities at the site in June, July, and August 2007 to characterize site conditions. Specifically, multimedia screening and sampling events were conducted on June 27 to June 30, 2007, July 10 to July 12, 2007, and August 22 to August 28, 2007. All sample collection activities and procedures were performed in accordance with the EISOPQAM. Methodologies used and sampling results obtained during the investigation are summarized below:

AIR MONITORING

Real-time air monitoring was performed inside the permanent structures on site and around AST to determine the environmental health risks and the level of personal protection equipment (PPE) required to complete the field investigations safely. Specifically, START utilized a toxic vapor analyzer (TVA) 1000 equipped with a photo-ionization detector (PID)/flame ionization detector (FID) to measure organic vapor concentrations; a four-gas meter to measure oxygen (O2), carbon monoxide (CO), and hydrogen sulfide (H2S) levels and percent lower explosive limit (LEL); and a cyanide gas meter to measure hydrogen cyanide concentrations. These instruments were also used to check for potential containment releases and ensure adequate level of PPE when opening each closed container. Overall, the air monitoring readings collected from the breathing zone, in and around 55-gallon drums, and in confined areas (i.e. closets) of the warehouse were within acceptable range levels for Level D PPE. The average recorded ambient air readings from the first day, prior to venting the warehouse with outside ambient air, were as follows:

- FID - 2.1 parts per million (ppm);
- PID - 1.6 ppm;
- LEL, CO, and H2S were all zero; and
- O2 - 20.9 percent.

CONTAINERS

Approximately 500 55-gallon drums, 27 ASTs, three 300-gallon totes, and several tanker trucks were inventoried onsite during this evaluation. Many of the drums were either unlabeled or poorly labeled. Utilizing a HazCat® kit, a total of 89 55-gallon drums, three 300-gallon totes, 25 AST, and two tanker trucks were sampled and screened for hazardous constiuents. Two-hundred and fifty-two drums, 25 AST, three 300-gallon totes, and two carbon filters were also sampled for laboratory analysis. Samples were submitted to EPA-approved Laboratories for target analyte list (TAL) total metals analysis by SW846 Method 6010B/7470; target compound list (TCL) volatile organic compounds (VOC) analysis by SW846 Method 8260B; TCL semi-volatile organic compounds (SVOC) analysis by SW846 Method 8270; and polychlorinated biphenyl (PCB) analysis by SW846 Method 8082. Approximately 20 percent of the smaller containers (those less than 300 gallons) were hazard categorized in the initial sampling round conducted in June 2007. HazCat® results indicated that all samples were negative for radiation, peroxide, and flammability; 82 percent were water miscible, and 18 percent were non-miscible. Two-hundred and fifty three (253) drums, 25 ASTs, three 300-gallon totes, and two tanker trucks were field screened utilizing the FID, sampled and analyzed for TAL metals, TCL VOC, TCL SVOC, and PCBs. FID results ranged from 0 - 1000 ppm. Laboratory analytical results indicated the presence of trace metals (mostly arsenic, lead and chromium), SVOCs (mostly phenols and naphthalenes), and VOCs (mostly benzenes) in up to 39% of the containers sampled.

SOIL

Nine surface and subsurface soil samples were collected from zero to 6 inches bgs anf 6 inches to 12 feet (estimated depth of groundwater table), respectively. The samples were collected from historical work areas, near ASTs, and where soil staining was observed. Samples for VOC analysis were collected using Terracore® samplers, while samples for the remaining analysis were collected using a stainless steel spoon, homogenized in a stainless steel bowl, and containerized. A track-mounted Geoprobe® equipped with a 4-foot acetate-lined MacroCoreTM sampler was used to collect the subsurface samples. Soil type and descriptions for all soil cores were recorded in boring logs. Each 4-foot sleeve was screened for organic vapors using a TVA-1000 PID/FID. Screening was focused on the vadose zone since the suspected contaminants of concern were light non-aqueous phase liquids (L-NAPL) and glycols. Glycol is miscible in water and L-NAPLs travel with the water table. Samples were collected from the 1-foot interval indicating the highest PID/FID reading and/or from the deepest 1-foot depth interval for the boring. Additionally, based on the results of a geophysical survey conducted by NCDENR, four concrete cores were drilled around the concrete pad supporting the glycol processor. The cores were drilled where ground penetrating radar (GPR) indicated anomalies. One subsurface soil sample was collected using a hand-auger from below the glycol processor concrete pad. All soil samples were submitted to approved laboratories for TAL total metals, TCL VOC, TCL SVOC, and PCB analysis. Analytical results for surface soil samples collected on site indicate that 1,1-dichloroethene, acetone, benzene, ethylbenzene, m,p-xylene, toluene, trichlorofluoromethane, and all analyzed metals were detected in at least one surface soil sample. Analytical results for subsurface soil samples indicated that trace levels of bis(2-ethylhexyl) phthalate, acetone, arsenic, chromium and lead were detected in these samples.

GROUNDWATER

One groundwater sample and a field duplicate were collected from a monitoring well located at 3501 Gribble Road. The shallow well was installed by EPA during the removal action conducted at the adjacent property, 3481 Gribble Road, in the mid-1990s. This well has a depth of 13.5 feet bgs, a water level of approximately seven feet, and an above ground casing of 3.3 feet. A 2-inch Teflon bailer was used to purge the well dry prior to sample collection. The samples were submitted to an approved laboratory and analyzed for TAL metals, TCL VOC, TCL SVOC, and PCB. Analytical results related to this sampling event detected low to moderate levels of antimony, arsenic, cadmium and manganese in the sample collected.

Planned Removal Actions

The RSE was conducted to identify conditions that would trigger a removal action by the EPA to remove or minimize potential threats to human health or the environment. For this evaluation, the maximum detected concentrations were compared to EPA established Removal Action Levels (RALs). The RALs were determined by converting the Region 9 PRGs to risk-based concentrations appropriate for time-critical removal actions. The derived RALs are based on an industrial human health risk of 1x10-4 for carcinogens and a Hazard Index of 3 for non-carcinogens. Water sample concentrations were evaluated based on drinking water PRGs. The field investigation conducted in support of this RSE included a review of historical documentation; air monitoring; hazard categorization, inventory, and sampling of approximately 500 55-gallon drums, 27 ASTs, three 300-gallon totes, several tanker trucks stored on site; and soil and groundwater sampling.

The RSE field investigation identified some substances at the site tested positive for hazardous constituents; however, for the most part, these substances were either detected below established PRGs/RALs or otherwise contained and secured within the confines of the facility. As such, it appears these substances present a minimum risk, if any, to public health and welfare or the environment. Additionally, during the site investigation, the facility owner was in the process of removing some or all of the materials off site. SRS, a division of USI Company, had contracted with the owner to purchase and recycle the used/spent product (predominantly ethylene glycol and diethylene glycol) contained within the 27 ASTs.

Based on the findings of the RSE and the owners committent to address the hazardous subtances/conditions, as identified in the investigation, a decision to implement a removal action at the site appears unwarranted at this time.

Next Steps

Based on the findings of this investigation, and assurance by owner to mitigate the identified threats, no further action is planned by EPA.

Should conditions change or the owner fail in his assurance to properly address the hazardous conditions identified during this investigation, further action may be taken by EPA to mitigate such a threat.

Key Issues

The RSE field investigation identified some hazardous substances/pollutants present on site. The facility is closed for operations and secured. A 6 feet chain link fenced surrounds the perimeter of the property, and all materials are contained inside ASTs or 55-gallon drums within the confines of the facility. The owner is in the process of removing some or all of the materials off site. Should conditions change or the owner fail to properly address the hazardous substances/conditions identified during this investigation, further action may be taken by EPA to mitigate any remaining threats posed to human health or the environment.

NCDENR has been notified of the investigatory findings of this RSE and will followup at a future date to document the progress of the facilty's cleanup committment.

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