

United States Environmental Protection Agency
Region IV
POLLUTION REPORT

Date: Tuesday, April 22, 2008

From: Alyssa Hughes

To: Jim McGuire, ERRB

Subject: Continuation of Action

Aluminum Finishing of South Carolina
566 Fuldner Road, Barnwell, SC
Latitude: 33.2526870
Longitude: -81.3776780

POLREP No.:	4	Site #:	A4NK
Reporting Period:	3/31-4/5	D.O. #:	0704-F4-0006
Start Date:	2/4/2008	Response Authority:	CERCLA
Mob Date:	2/4/2008	Response Type:	Time-Critical
Demob Date:		NPL Status:	Non NPL
Completion Date:		Incident Category:	Removal Action
CERCLIS ID #:	SC0000028004	Contract #	EP-S4-07-04
RCRIS ID #:			

Site Description

The Aluminum Finishing of SC Site (Site) is the location of a former aluminum anodizing and coloring facility. The site was owned and operated from approximately 1999-2004 by the Aluminum Finishing of South Carolina Corporation. The Site is no longer in operation. Based on a review of Barnwell County records, the site was sold in a tax sale on November 7, 2005. At that time, the property was titled to REOCO, LLC of Jupiter Lakes, Florida. (Ref 1)

The Site is located at 566 Fuldner Road, Barnwell, South Carolina. Recent inquiries have indicated that Fuldner Road has been renamed as Joey Zorn Boulevard, however, Barnwell County documents continue to list the address as Fuldner Road. The property is approximately thirteen acres and is located in an industrial park adjacent to the Barnwell County airport. There is one-story steel frame structure on the Site, which housed the aluminum finishing operation. There is a stormwater retention pond on the southeast side of the property and a small paved parking lot located on the northeast corner. Water supply to the Site is provided by the Barnwell County public water system. The Barnwell County Sheriff's office is located directly across from the Site.

In January 2007, REOCO, LLC initiated a Phase I Environmental Site Assessment (ESA) at the Site. The Phase I ESA was completed between February 15 and April 10, 2007. The Phase I included a review of historical records, a site inspection and sampling and analysis of some of the waste streams at the Site. The Phase I report identified numerous tanks and containers both inside and outside the building on the Site. (Ref 3). The following were documented in the Phase I ESA report:

- Fifteen fiberglass vats, ranging in size from 5,000 to 6,000 gallons located inside the building. Vats contain liquid, sludge and/or precipitate;
- At least three isolated containment units beneath the open vats, which contain liquid, sludge and/or precipitate;
- Two above ground tanks inside the building which contain a slightly caustic solution;
- One above ground stainless steel tank which has a corroded foundation and is leaning against the east wall of the building;
- Several plastic totes and 55-gallon drums of new and spent acids, caustics and additives inside the building;
- Numerous containers of laboratory chemicals, paints and other hazardous materials near the electrical room;
- Several plastic totes, drums and containers located outside on the west side of the building. At least three fiberglass above ground storage tanks located outside. Containers are labeled as new/spent acids, caustics and additives.

At 0730 on May 31, 2007, EPA and ERRS contractor WRS arrived at the Site. A representative from

DHEC was also on site. EPA and ERRS discussed health and safety issues at the Site. ERRS worked throughout the day to accomplish the following tasks to stabilize the Site:

- Overpacked two leaking drums with pH 1;
- Moved and secured 25 full drums into the building;
- Moved and secured 13 partially full drums into the building;
- Moved and secured 10 partially full 250 gallon totes into the building;
- Moved 29 empty drums into the building;
- Collected samples from three drums and one above ground storage tank;
- Performed hazard categorization field screening on the four samples. Results indicated three drum samples with pH < 2 and one tank sample with pH 12;
- Shipped four samples off site for laboratory analysis.

EPA OSCs conducted air monitoring around the containers and throughout the Site during the emergency response action. No elevated readings were detected on the PID, FID and 4-gas meter. In addition, a radiation survey was conducted and no readings were detected above background (12 uR/hr).

EPA and ERRS completed all emergency response actions and demobilized from the Site on the morning of June 1, 2007.

Current Activities

On April 1, 2008 the second load of hazardous waste consisting of low pH chromium liquids was transported to Vickery Environmental located in Vickery, OH. The load, whose contents were pumped from vat 10, totaled 4,013 gallons. Also on April 1, the second load of non-hazardous debris and solids, weighing 5.77 tons, was transported to Three Rivers Subtitle D Landfill located in Aiken, South Carolina. On April 2, 2008 the first batch of neutralized liquids was discharged to the sewer on-site. The total batch volume was approximately 15,759 gallons. Analytical results indicated a pH of 8.49, and metal contents all below the effluent discharge limits set forth by the City of Barnwell Sewage Treatment Plant. A letter stating the agreement to discharge was submitted to the Sewage Treatment Plant, with an attachment stating the batch volume and analytical results from the laboratory. Batch #2, consisting of liquids from vats 1,2,5,7,8 and 11, were pumped into the treatment system in vats 13, 14 and 15. The sludges remaining in the bottom of these vats was pumped to containment area 1 for solidification. On April 3, 2008 the third load of hazardous waste, consisting of low pH chromium liquids was transported to Vickery Environmental located in Vickery, OH. The load, totaling 3,489 gallons, consisted of the remainder of the vat 10 liquids. On Saturday, April 5 the third roll-off containing non-hazardous solids was transported off-site.

The sludges in containment area 1, located on the south side of the vat containment, failed attempts at solidification with the lime, oil dri, and corn cob material. The sludges were able to be solidified with super absorbent polymer. Approximately 6,000 pounds of this material was ordered for the purpose of solidifying sludges on-site. The material from totes labeled D-27, 28, 29, 30, 31 and 33 was solidified and placed in a roll-off for disposal. These totes were then cut with their remains placed in a roll-off container for disposal. Sludges in vats 1, 2 and 5 were solidified using the super absorbent polymer. Contents were placed in a roll-off container for disposal.

Vats 1, 2, 6, 7, 9 and 12 were decontaminated during the time period. Decontamination consists of removing all material from the vat, followed by pressure washing and pumping of rinse water. The pressure washing was performed by a technician placed in the vat. A confined space permit was obtained and continuous air monitoring was conducted by START personnel. A lifting bar was removed from vat-10 using the mini-excavator and placed into the roll-off container for disposal.

The Chemist/ Transportation and Disposal Coordinator worked to consolidate like-liquids in totes in order to minimize off-site transportation and disposal costs. Liquids from totes labeled D-23 and 25 were pumped into D-7. The contents of D-5 and 18 were placed in an empty poly drum. The contents of D-4 were placed into a new poly drum due to questionable integrity. Liquids from D-12 and 42 were pumped into D-52.

Planned Removal Actions

All materials on-site will be transported and disposed of at various facilities meeting the CERCLA Off-Site Rule Requirement. The following waste streams have been identified:

WASTE STREAM QUANTITY DISPOSAL OPTION/TSDF

High pH, D002 and D007 1500 galls CWM- Vickery, OH

Low pH, D002 and D007 7800 galls CWM- Vickery, OH

Non-Haz Vat Liquids (pH 6-8.5) 20000 galls POTW- Barnwell, SC
Non-Haz Vat Liquids (untreatable) 25000 galls Clean Management- Walterboro, SC
Non-Haz Solids 10 roll-offs Three Rivers Landfill- Aiken, SC
Containerized Waste 2750 galls Clean Management- Walterboro, SC

Once the disposal of all materials is complete, the facility will be decontaminated to the best possible state without removing any of the vats. The vats and most of the air and water lines will be left in place.

Next Steps

The next steps are to continue with plans to dispose of materials left on-site. The fourth load of hazardous waste disposal is scheduled for pick-up on Tuesday, April 8. The fifth roll-off containing non-hazardous solids is scheduled for pick-up on Monday, April 7. The second discharge to the City of Barnwell Sewage Treatment Plant is scheduled to take place next week.

Key Issues

Analytical results from the material in containment area 2 indicate that the liquids are characteristically hazardous for chromium concentrations. This material will be pumped into vat-10 and disposed of with the remaining low pH chromium liquids at the Vickery Environmental Facility in Vickery, OH. A tanker truck is scheduled to arrive on Monday, April 7. This additional material was not factored into volume estimates used to derive a cost estimate and will impact the disposal cost.

Disposition of Wastes

Two loads of D002, D007 liquids totaling 7502 gallons
Two rolloffs of non-hazardous solids totaling 16.261 tons

Waste Stream	Quantity	Manifest #	Disposal Facility
Low pH Chromium Liquid Hazardous Waste	4013 gallons	002774791	Vickery Environmental Vickery, Ohio
Low pH chromium hazardous waste	3489 gallons	002774789	Vickery Environmental Vickery, Ohio

response.epa.gov/aluminumfinishing