

United States Environmental Protection Agency
Region IV
POLLUTION REPORT

Date: Monday, August 30, 2004

From: Art Smith

Subject: Initiation of Bulking & Disposal Operations
Universal Plating
135 Industrial Road, Morganfield, KY

POLREP No.:	3	Site #:	A4FM
Reporting Period:	Aug. 23, 2004 to Sept. 2, 2004	D.O. #:	0204-F4-026
Start Date:	6/9/2004	Response Authority:	CERCLA
Mob Date:	6/10/2004	Response Type:	
Demob Date:		NPL Status:	Non NPL
Completion Date:		Incident Category:	Removal Action
CERCLIS ID #:	A4FM	Contract #	68-S4-0204
RCRIS ID #:			

Site Description

The site is the location of the former Universal Plating operation. It was in business from the late 1990s until October 2002 and was involved in custom electroplating and powder coating operations. On June 8, 2004, the OSC and the Region 4 Superfund Technical Assessment and Response Team (START) accompanied KYDEP Superfund Branch personnel and conducted a removal site evaluation (RSE) pursuant to Section 300.410 of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). The OSC noted that the site was abandoned and detected the odor of acid fumes in areas outside the plating building. Once inside, the investigation team documented the presence of suspected plating solutions in over 20 open tanks inside the building. Two of the tanks were labeled "muriatic acid", and had a measured pH of less than 2. Muriatic acid is a synonym for hydrochloric acid, a listed hazardous substance. Vapor concentrations above one of the tanks exceeded 6 parts per million (ppm) on a mineral acid cartridge, as measured by a Single Point Monitor (SPM) direct reading instrument. Based on the previous detection of odors by the OSC in areas outside of the building, the SPM was re-deployed and readings from within the fan housing exiting the building ranged from 0.3-0.5 ppm, verifying that an airborne release into the environment is ongoing. On June 9, 2004, the OSC issued a verbal Task Order to the Emergency and Rapid Response Services (ERRS) contractor (CMC, Inc.) for purposes of stabilizing immediate hazards at the Site. On June 10, 2004, work was performed to cover all open containers and to secure the building. EPA and its contractors re-mobilized to the site on July 26, 2004 to complete the initial phase of the removal action. Activities included hazard characterization for wastestream identification of plating baths and other miscellaneous chemicals found throughout the building. Field compatibility testing was performed and test bulking schemes were prepared. The primary wastestream is over 13,000 gallons of an acid liquid with a pH of less than 1.0 units. A cyanide liquid wastestream of up to 1,000 gallons appears to be amenable to oxidation, if on-site treatment is cost-effective. Also, up to 4 tons of a caustic solid wastestream (pH 12) will require disposal at an off-site facility. After samples of liquid, solids, and soils were sent to an offsite lab for analyses, all parties demobilized the Site on July 28.

Current Activities

On August 22, EPA and its contractors re-mobilized to the facility to begin Phase 2 of the time-critical removal action. On August 23 and 24, ERRS contractors performed set-up activities including: (1) decontaminated and cleaned portions of the building to be used for office space, restrooms, and a break room; (2) set up a decontamination area and an emergency shower; (3) established water and electric service; (4) arranged for set up of an office trailer; (5) removed household waste from the building; (6) collected disposal samples to establish a waste profile; and (7) established waste profiles with the appropriate disposal facilities.

On August 25, ERRS crews excavated a containment area and installed a 5,000-gallon stainless steel reaction vessel at the site to be used for bulking solids. Two 2,000-gallon stainless steel reaction vats were installed into an excavated area on the south side of the facility for solids mixing. In addition, crews cleared an area on the south side of the building for disposal truck loading.

On August 26, ERRS crews cleaned the former buffing/polishing room on the east side of the building and began the bulking of chemical solids from small containers into 55-gallon drums. The solids were later mixed together in one of the 2,000-gallon stainless steel reaction vats. START performed downwind air monitoring for sulfuric acid and hydrogen cyanide during the bulking operation. Air monitoring did not produce any readings on the single point monitor. In addition, crews decontaminated buckets and drums that were previously used to store chemical solids, cut them in halves, and placed them in the roll-off dumpster.

On August 28, and 30-31, ERRS crews began bulking liquids from small containers into 55-gallon drums. Crews then transferred liquids from the 55-gallon drums and several chemical vats into the 5,000-gallon stainless steel reaction vessel. START performed downwind air monitoring for sulfuric acid and hydrogen cyanide; air monitoring did not produce any significant readings. However, a reaction occurred while performing the liquid bulking activities that produced an orange cloud with a chlorine smell. Air monitoring for chlorine using a Drager CMS at the exclusion zone perimeter indicated chlorine gas at 3 parts per million (ppm). Downwind air monitoring for chlorine was non-detect.

On September 1 and 2, ERRS crews cleaned and staged empty vats; and cleaned and cut poly tanks. EPA, START, and the ERRS contractor will de-mobilize for the Labor Day holiday on September 3.

Planned Removal Actions

EPA, START, and the ERRS contractor will re-mobilize to the site on September 7. The ERRS contractor will complete the bulking of liquid waste streams and arrange for transportation and disposal of the waste after waste profiling is complete. The building and floors will be decontaminated following the removal of all wastes. The goal of the removal action is to decontaminate the building to an extent that would allow for commercial reuse of the property. EPA anticipates completing the removal action in September 2004.

Key Issues

Citing the continued emergency conditions at the site, the OSC increased the project ceiling from \$185,000 to \$250,000. The increase is necessary to cover the additional cost for offsite disposal of hazardous wastes, as onsite treatment options are not feasible. Also, intramural costs were re-allocated to extramural categories, in accordance with OSWER Directive 9360.0-42.

Disposition of Wastes

Waste Stream	Quantity	Manifest #	Disposal Facility
acid liquids	13,000 gallons		
cyanide liquids	2,000 gallons		
poison solids	4 tons		
non-hazardous solids			

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