

**United States Environmental Protection Agency  
Region V  
POLLUTION REPORT**

**Date:** Thursday, October 4, 2007

**From:** Steven Renninger

|            |                                                  |                                             |
|------------|--------------------------------------------------|---------------------------------------------|
| <b>To:</b> | Randy Watterworth, OEPA                          | Dave Combs, Ohio EPA                        |
|            | Rafael Gonzalez, EPA-OPA                         | Tracy Johnson, EPA                          |
|            | Kevin Clouse, Ohio EPA                           | Jim Crawford, OEPA                          |
|            | Dale Farmer, Ohio EPA                            | Distribution List, National Response Center |
|            | Bob Frey, Ohio Department of Health              | Victor Dvorak, EPA                          |
|            | Jason El-Zein, EPA 5                             | Duane Herth, Cincinnati Fire Department     |
|            | Mike Snowden, LEPC                               | Arlene Lilly, EPA                           |
|            | Bonnie Phillips, Office of Environmental Quality | Chris Hall, Cincinnati MSD                  |
|            | Jim Weast, Cincinnati MSD                        | Beverly Head, Cincinnati MSD                |
|            | David Chung, EPA                                 | Edward Frambes, LEPC                        |
|            | mark durno, EPA 5 Acting Chief RS-1              | Ralph Dollhopf, EPA 5                       |

**Subject:** POLREP #4

Schulte Metals Site  
4909 Charlemar Drive, Cincinnati, OH  
Latitude: 39.1586000  
Longitude: -84.4117000

|                          |                                      |                            |                   |
|--------------------------|--------------------------------------|----------------------------|-------------------|
| <b>POLREP No.:</b>       | 4                                    | <b>Site #:</b>             | B5HG              |
| <b>Reporting Period:</b> | August 13 through September 28, 2007 | <b>D.O. #:</b>             | 030228.0078       |
| <b>Start Date:</b>       | 6/1/2007                             | <b>Response Authority:</b> | CERCLA            |
| <b>Mob Date:</b>         | 6/1/2007                             | <b>Response Type:</b>      | Time-Critical     |
| <b>Demob Date:</b>       |                                      | <b>NPL Status:</b>         | Non NPL           |
| <b>Completion Date:</b>  |                                      | <b>Incident Category:</b>  | Removal<br>Action |
| <b>CERCLIS ID #:</b>     | OHN 000 510 199                      | <b>Contract #</b>          | 68-S5-03-06       |
| <b>RCRIS ID #:</b>       |                                      |                            |                   |

**Site Description**

The Schulte Metals Site is located at 4909 Charlemar Drive in Cincinnati, Hamilton County, Ohio. The three-acre Site is located in a mixed residential, commercial, and light industrial area, and is less than 200 feet from residential areas. The Site is bordered to the north and west by residential properties, and to the east and south by commercial and light industries. The Site includes one large building that contains plating lines, a hand-line plating area, a laboratory, a waste treatment area, offices, a machine shop area, and numerous drum storage areas. U.S. EPA and WESTON START observed approximately three hundred 55-gallon drums containing various chemicals, 144 plating tanks, and several hundred smaller containers with varying chemical waste capacities.

The Schulte Corporation, the business's operating name from 1958 to 1992, later known as the Schulte Metals Finishing Company (SMFC), conducted copper cyanide, chrome, and nickel plating at the Site. The facility conducted plating operations for plumbing fixtures and specialty automotive parts from 1958 until December 2006.

According to Cincinnati Police Department (CPD) records, the Site has a history of vandalism and trespassing between 2002-2006.

SMFC ceased operations in December 2006 without notifying the Cincinnati Municipal Sewer District (CMSD). On March 8, 2007, CMSD and the Ohio Environmental Protection Agency (Ohio EPA) inspected the Site and observed that most of the plating tanks were empty, and there were numerous drums containing hazardous waste.

On March 30, 2007, CMSD, Ohio EPA, and the CFD inspected the Site in response to a complaint that

plating tanks were being emptied during the auction. The CFD vacated the premises and secured the building. All utilities were discontinued, and CMSD, with SMFC's permission, placed a sewer plug into the Site outflow sewer line.

In a letter dated April 5, 2007, Ohio EPA requested assistance from the U.S. EPA Region V Superfund Division in conducting a potential time-critical removal action involving several hundred 55-gallon drums and numerous tanks containing plating waste.

On April 16, 2007, U.S. EPA, Ohio EPA and CFD conducted a site reconnaissance inside the facility.

U.S. EPA observed a Laboratory inside the facility, which contained numerous laboratory chemicals such as hexane, various poisons, benzyl chloride, ammonium chloride, nitric acid, acetic acid, sulfuric acid, and various containers labeled as 'containing cyanide'.

The Hazardous Waste Storage Area is located northwest of the Laboratory. In this area of the Site, U.S. EPA observed approximately 200 chemical-containing 55-gallon drums and containers labeled as: hydrochloric acid, sulfuric acid, sodium hypochlorite, copper solutions, nickel sulfide/brightener, cyanide copper, and chrome strip. The drums were staged in rows. Ohio EPA stated that some of the drums were filled with spent plating solutions that the Site owner emptied from the process plating tanks.

South of Dry Chemical Location A is Liquid Chemical Location B. This area contained approximately 70 containers with volumes of 55-gallons or less labeled as petroleum/lubricants, chrome, and liquid copper sulfate.

East of the Liquid Chemical Storage Room are the Plating Tank Process Lines. Approximately 100 plating tanks in various levels of deterioration were present. Some of the plating tanks were full of plating solutions.

U.S. EPA observed a 1,000-gallon plating tank that was approximately 50 percent full with a cyanide label and white crystals. The plating tank had plastic wrap over the top, either in an attempt to prevent vapors from leaving the tank or rainwater from entering the tank. U.S. EPA also observed a plating tank with a nitric acid label, approximately 25 feet from the plating tank, containing cyanide. The plating tank containing the green-colored, nitric acid liquid had a volume of approximately 500 gallons and was completely full.

Southwest of the Plating Tank Process Lines is the Waste Treatment Area. This area contained approximately 15 tanks and twelve 55-gallon drums and labeled as sulfuric acid, nickel, magnesium bisulfite solution, sodium hypochlorite, and nitric acid.

In the far southeastern corner of the building is the Cyanide Storage Area. This area contained 10 drums and containers with volumes of 40 gallons or less and labeled as sodium cyanide, zinc cyanide, copper cyanide, and potassium cyanide.

U.S. EPA observed standing water in many areas throughout the facility. The structural integrity of the building roof is questionable due to the evidence of numerous leaks. The potential is high for rain to enter the building through the roof leaks and cause the plating tanks to fill and possibly overflow.

On April 23, 2007, U.S. EPA conducted a site assessment at the Site. During site assessment activities, U.S. EPA tasked WESTON START to collect 22 samples from drums, tanks, and containers. Analytical results indicated the following:

- Four liquid samples showed the hazardous characteristic of ignitability, with flash points between 65 °F and 71 °F;
- Seven liquid samples showed the hazardous characteristic of corrosivity (acid), with pH levels between 0.0 and 0.42 standard units;
- One liquid sample showed the hazardous characteristic of corrosivity (caustic), with a pH level of 14.0 standard units;
- Six samples showed the hazardous characteristic reactivity, with total cyanide concentrations of 1,080 mg/L and 37,500 to 294,000 mg/kg; and
- One sample showed the hazardous characteristic of toxicity, with a TCLP chromium concentration of 4,000 mg/L and a TCLP lead concentration of 14.0 mg/L.

Based on analytical results and Site conditions during the site assessment, the Site meets the criteria for a removal action pursuant to 40 CFR 300.415(b)(2). The chemicals detected at the Site pose an imminent health threat and present a danger to the public and environment.

June 1-6, 2007, the EPA removal action was initiated with mobilization of personnel and equipment. A Site Health & Safety Plan and Site Emergency Contingency Plan was finalized and air monitoring activities were initiated. START completed a site waste inventory. Drum staging was initiated by ERRS.

From June 6 - July 13, 2007, the EPA removal action continued with sampling of wastestreams, packaging of lab chemicals, removal of plating vats, bulking of liquid wastestreams, and air monitoring.

From July 16 through August 10, 2007, the EPA removal action continued with the dismantling of the main plating line, cleaning out pits, bulking and off-site disposal of hazardous wastestreams, and air monitoring.

### **Current Activities**

Week of August 13 through August 17, 2007:

- No on-site work was scheduled. 24-hr security during this time period, including weekends

Week of August 20 through 24, 2007 – The following work was completed:

- ERRS continued loading scrap metal into rolloff boxes, non-hazardous debris into Rumpke rolloff boxes and hazardous debris into plastic-lined rolloff boxes. Hazardous debris consists of cut-up tanks, metal piping, empty drums, PPE, etc.

- 4,116 gallons of basic chrome liquid (pH>12) was transported for off-site disposal to Heritage Environmental.

- 3,424 gallons of cyanide liquid was transported for off-site disposal to Heritage Environmental.

- 4 drums of chromic acid solids, 11 drums of caustic liquid and 6 drums of caustic solids were transported for off-site disposal at Environmental Quality, Belleville, Michigan.

- One rolloff box (18 yd<sup>3</sup>) containing hazardous debris was transported for off-site stabilization and treatment disposal to Environmental Quality, Belleville, Michigan.

- ERRS initiated loading cyanide-contaminated plating sludge from pits into 55-gallon poly drums.

- START continued using AreaRAEs to monitor the indoor breathing zone and outside perimeter for CO, LEL, VOCs, HCN and percent oxygen.

August 27 through 28, 2007 – The following work was completed:

- ERRS continued loading scrap metal into rolloff boxes, non-hazardous debris into Rumpke rolloff boxes and hazardous debris into plastic-lined rolloff boxes. Hazardous debris consists of cut-up tanks, metal piping, empty drums, PPE, etc.

- 60 drums of cyanide-contaminated plating sludge were transported for off-site stabilization and treatment disposal to Environmental Quality, Belleville, Michigan.

August 29 through September 4, 2007:

- No on-site work was scheduled. 24-hr security during this time period, including weekends

September 5 through September 7, 2007 – The following work was completed:

- ERRS continued loading scrap metal into rolloff boxes, non-hazardous debris into Rumpke rolloff boxes and hazardous debris into plastic-lined rolloff boxes. Hazardous debris consists of cut-up tanks, metal piping, empty drums, PPE, etc. Plating lines are being dismantled.

- 4,425 gallons of hazardous liquid (low-level chrome and cyanide) from the on-site Baker storage tank was pumped into a tanker truck for off-site disposal to Environmental Quality, Belleville, Michigan.

- 67 drums containing cyanide-contaminated plating sludge was transported for off-site disposal at Environmental Quality, Belleville, Michigan.

- 2,525 gallons of cyanide liquid was transported for off-site disposal to Heritage Environmental.

- START continued using AreaRAEs to monitor the indoor breathing zone and outside perimeter for CO, LEL, VOCs, HCN and percent oxygen.

Week of September 10 through September 14, 2007:

- ERRS continued loading scrap metal into rolloff boxes, non-hazardous debris into Rumpke rolloff boxes and hazardous debris into plastic-lined rolloff boxes. Hazardous debris consists of cut-up vats, metal piping, empty drums, PPE, etc. Plating lines are being dismantled.
- START continued using AreaRAEs to monitor the indoor breathing zone and outside perimeter for CO, LEL, VOCs, HCN and percent oxygen.
- ERRS transferred cyanide solids (crystals) from plating tanks into poly drums. A total of 23 poly drums were filled with cyanide solids.
- One rolloff box (18 yd3) containing hazardous debris was transported for off-site stabilization and treatment disposal to Environmental Quality, Belleville, Michigan.

September 17 through September 21, 2007:

- No on-site work was scheduled. 24-hr security during this time period, including weekends
- One rolloff box (18 yd3) containing hazardous debris was transported for off-site stabilization and treatment disposal to Environmental Quality, Belleville, Michigan.

Week of September 24 through September 28, 2007:

- ERRS continued loading scrap metal into rolloff boxes, non-hazardous debris into Rumpke rolloff boxes and hazardous debris into plastic-lined rolloff boxes. Hazardous debris consists of cut-up vats, metal piping, empty drums, PPE, etc. Plating lines are being dismantled.
- START continued using AreaRAEs to monitor the indoor breathing zone and outside perimeter for CO, LEL, VOCs, HCN and percent oxygen.
- ERRS mobilized a man-lift and initiated removal of contaminated metal/PVC piping from above plating tanks. ERRS conducting the cutting operation in Level C PPE.
- 24 drums containing cyanide solids were transported for off-site disposal to Heritage Environmental.

#### **Planned Removal Actions**

- Continue removing overhead piping from above plating tanks.
- Dismantle the main plating line.
- Decontaminate the concrete floor of the facility.
- Transport two 55-gallon drums of waste oil consolidated from plating line machinery for off-site disposal.
- Containerize and transport floor debris to Heritage Environmental for off-site disposal.

#### **Next Steps**

- Continue air monitoring with AreaRAEs.
- Continue off-shift site security

#### **Key Issues**

Site emergency contingency plan was finalized and distributed to local response agencies on June 1, 2007.

[response.epa.gov/schultemetals](http://response.epa.gov/schultemetals)