



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

MAR 18 2009

ACTION MEMORANDUM

SUBJECT: Request for Ceiling Increase at the Richards Plating Site, Florence, Lauderdale County, Alabama

FROM: Jordan Garrard, On-Scene Coordinator
On-Scene Coordinator

THRU: Shane Hitchcock, Chief
Emergency Response and Removal Branch

TO: Franklin E. Hill, Director
Superfund Division

I. PURPOSE

The purpose of this Action Memorandum is to request and document approval of a ceiling increase for the Richards Plating Site, located in Florence, Lauderdale County, Alabama (the Site), located at 529 South Royal Avenue, Florence, Alabama. The Site poses a threat to public health and the environment and meets the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) Section 300.415(b) criteria for removal actions.

An Initial Emergency Response Action was initiated at the Site on November 13, 2008, under the On-Scene Coordinator's (OSC) \$250,000 authority to provide prompt risk reduction through expedited action. This Action Memorandum describes response actions to be implemented at the Site and includes demolition of existing structure, delineation of contamination in surface and subsurface soils throughout the 3-acre Site, transportation and disposal of contaminated non-hazardous and hazardous soils, transportation and disposal of hazardous liquids associated with plating activities, and removal activities associated with contaminated soils located beneath the current structure.

As the result of the Site conditions, immediate removal actions conducted pursuant to Section 104 of CERCLA continue to be needed at the Site. The total project ceiling, if approved, will be \$785,851, of which an estimated \$569,876 comes from the Regional Removal Allowance.

II. SITE CONDITIONS AND BACKGROUND

A. Site Description

Site Number: A4XK
Type: Time-Critical Removal

1. Removal Site Evaluation

Richards Metal Plating operated as a chrome-nickel electroplating facility since the 1960s. Site operations ended in early 2006, Alabama Department of Environmental Management (ADEM) inspection in May 2006 revealed the Site to be inactive and abandoned.

ADEM referred the Site to the Environmental Protection Agency (EPA) Emergency Response and Removal Branch in November 2008. On November 11, 2008 ERRB and ADEM personnel conducted an on-site assessment as part of the Removal Site Evaluation (RSE). The abandoned and former electro-plating facility was known to have operated for over 40 years at this location. ADEM expressed their concern about uncontrolled access to the site and the presence of unknown chemicals stored in numerous drums, totes, containers and old plating vats located within.

During the assessment the OSC discovered conditions at the Site that required emergency response actions whose scope included stabilization and characterization of wastes on-site. Inside the building, hundreds of containers, many which were open with hazardous material labels; several open vats labeled “chromic acid” and “sodium hydroxide”; and two completely full outdoor vats positioned several feet from the creek. During the walk-through, a large area of discolored concrete block was noticed running down the back of the building, in the vicinity of the overflowing vats. Noticeable erosion led from the stains into the creek. The bumper yard was overgrown with kudzu, and contained approximately 0.25 acre of used bumpers several feet high. The building itself was in rapid decay, with the effects of vandals and thieves apparent. Large sections of the rear wall were missing, electrical conduit dangled from the ceiling, and the wooden gangplanks along the edges of the vats were rotten, making access treacherous. The roof of the building was in various stages of disrepair, and had allowed rainfall to collect in the secondary containments around the vats in the plating line.

The facility is unsecured and appears to be frequented by trespassers and vandals. Thieves had removed two stainless steel vats from the plating line, damaging the inner secondary containment partitions.

The completion of the assessment yielded the following concerns:

1. 24 open electroplating vats containing liquids and solids. Multiple vats have pH of 2 or below and high concentrations of chromium. These pH levels and chromium concentrations characterize the plating fluids as a Resource Conservation and Recovery Act (RCRA) hazardous waste (D002) and (D007). These vats are located in a dilapidated building which allows for precipitation to overflow the vats and secondary containment. The storm water runoff carries these chemicals flowing off-site into the surrounding ground and into the

adjacent creek.

2. Numerous 55-gallon drums and other smaller containing strong acids, oxidizers, and flammable substances improperly stored and leaking contents onto the building foundation.
3. Large amounts of dust containing high amounts of metals (chromium and nickel).
4. A large area of discolored concrete block was noticed running down the back of the building, in the vicinity of the overflowing vats adjacent to the creek.

2. Physical Location

The Site is located at 529 South Royal Avenue, Florence, Lauderdale County, Alabama. The Site is located in a semi-densely populated inner city area surrounded by a mix of commercial, industrial, and residential development. The former electroplating facility electroplated bumpers and other automotive parts for distribution from its warehouse located on-site. A branch of the Sweetwater Creek is located 10 feet from the building to the east.

3. Site Characteristics

Richards Plating is located at 529 South Royal Avenue, Florence, Lauderdale County, Alabama. Richards Plating is an abandoned chrome nickel electroplater. The Site operated for approximately 40 years from the 1960s until early 2006. The facility electroplated bumpers and other automotive parts for distribution from its 15,000 square foot building located on-site. The 3 acre site is located in a semi-densely populated inner city area surrounded by a mix of commercial, industrial, and residential properties. The building onsite is in rapid decay. Large sections of the rear wall were missing, electrical conduit dangled from the ceiling. The roof of the building was in various stages of disrepair, and had allowed rainfall to collect in the secondary containments around the vats in the plating line. The northern end of the building, consisting of the storage room and the offices, was in fair shape, with no observable structural damage

4. Release or threatened release into the environment of a hazardous substance or pollutant or contaminant

During the assessment, the OSC conducted an emergency response whose scope included an on-site stabilization and characterization of 24 electroplating vats, 50-75 drums, and hundreds of buckets and small containers of unknown substances are abandoned at the Site. The facility is

not operational and access is unrestricted. Evidence of vandalism and trespassing, stripped wiring, missing wall panels, disassembled electrical equipment, is present throughout the Site. Due to the condition of the building, suspected chemicals were observed mixed with rainwater in several areas of the interior and exterior of the facility. Upon arriving on-site, the OSC observed suspected storm water runoff carrying chemicals flowing off-site onto the surrounding ground and into the adjacent creek. Many of the containers were labeled as containing hazardous material. Several old plating vats suspected to be spent plating waste or chromic acid, indicated the possible presence of pH between 1-2, characterizing the contents as both a toxic and corrosive RCRA hazardous waste, thereby a hazardous substance.

5. NPL Status

This Site is not on the NPL. The Site has been evaluated for NPL listing by EPA Region 4 in coordination with ADEM.

6. Maps, pictures, and other graphic representations

Maps, pictures, and other graphic representations can be made available upon request.

1. Site description

a. Removal site evaluation

On November 6, 2008, at the request of the Alabama Department of Environmental Management (ADEM) Assessment Section, EPA and ADEM officials met at the abandoned, former Richards Plating facility. The abandoned and former electro-plating facility was known to have operated for over 40 years at this location. ADEM expressed their concern about uncontrolled access to the site and the presence of unknown chemicals stored in numerous drums, totes, containers and old plating vats located within. Inside the building, EPA observed hundreds of containers, many which were open with hazardous material labels; several open vats labeled "chromic acid" and "sodium hydroxide"; and two completely full outdoor vats positioned several feet from the creek. During the walk-through, a large area of discolored concrete block was noticed running down the back of the building, in the vicinity of the overflowing vats. Noticeable erosion led from the stains into the creek. The bumper yard was overgrown with kudzu, and contained approximately 0.25 acre of used bumpers several feet high. The building itself was in rapid decay, with the effects of vandals and thieves apparent. Large sections of the rear wall were missing, electrical conduit dangled from the ceiling, and the wooden gangplanks along the edges of the vats were rotten, making access treacherous. The roof of the building was in various stages of disrepair, and had allowed rainfall to collect in the secondary containments

around the vats in the plating line. Thieves had removed two stainless steel vats from the plating line, damaging the inner secondary containment partitions. In contrast to the deterioration of the southern end of the building, the northern end, consisting of the storage room and the offices, was in fair shape, with no observable structural damage. The facility is unsecured and appears to be frequented by trespassers and vandals.

B. Others Actions to Date

1. Previous Actions

On November 17, 2008 EPA, initiated and Emergency Response Removal Action after discovering approximately 50 abandoned 55-gallon drums labeled hydrochloric acid, caustic cleaner, and unlabeled; approximately 10 deteriorated paper drums actively releasing caustic cleanser believed to be sodium hydroxide (NaOH) solids, numerous 1 and 5 gallon containers, approximately 11 vats of low and high pH liquids believed to contain plating solutions, and former Quality Assurance/Quality Control (QA/QC) laboratory containing numerous small containers of chemical reagents; and other hazardous substances. Containers of strong acids and strong bases were improperly staged next to each other and open to the environment. The roof covering the plating line leaks allowing precipitation to enter into the vats and overflowing the secondary containment onto the ground surface and into the adjacent creek. EPA OSC Garrard directed ERRS and START contractors to stage, sample, and HAZCAT the various containers identified within the building and liquids in the vats in order to develop disposal waste streams. The vats were stabilized by securing plywood and plastic sheeting over the tops of the vats in order to inhibit future precipitation or trespassers from entering into the vats. The secondary containment surrounding the vats could not be secured.

On December 15th EPA OSC and START remobilized to the Site to collect surface soil, subsurface soil, and sediment samples. Samples were collected from surface soils surrounding the facility while collection of subsurface soil samples were attempted inside the facility. Samples collected from the sediments and subsurface soils indicated elevated concentrations of hexavalent chromium. Several samples exceeded the RSL for chromium of 498 mg/kg: RP-CORE-4A (1,310 mg/kg), RP-CORE-4B (4,230 mg/kg), RP-CORE-5 (1,780 mg/kg), RP-SD-01 (2,840 mg/kg), RP-SD-02 (806 mg/kg), RP-SS-04 (525 mg/kg), and RP-SS-07, dust from inside the building, (6,390 mg/kg). Sample RP-CORE-5 showed 276 mg/kg of hexavalent chromium, exceeding the industrial RSL of 71 mg/kg.

2. Current Actions

Continued technical evaluations are occurring at the Site to further characterize and delineate pertinent information in support of this proposed removal action. On February 23, 2009 EPA, ERRS, and START remobilized to the Site to begin disposal of wastes left on-site. Disposal activities will include vats, tanks, and other suspected waste

material. These materials have been adequately secured and will remain at the Site until the final disposal.

C. State and Local Authorities Role

1. State and Local Actions to Date

ADEM inspected the facility on October 29, 1992, concerning sills, leaks, treatment for waste volume reduction and record keeping. On March 23, 1993, ADEM issued a Notice of Violation for four violations noted during October 1992 inspection, and advised the facility to take corrective actions. In response to the NOV, some contaminated soils were removed. Subsequent inspection on February 23, 1994 indicated that soil contamination may still be present in the same area. An ADEM Consent Order was signed by Richards Metal Plating, Inc., on August 2000, which required Richards Plating, Inc. to conduct groundwater quality assessment activities.

2. Potential for Continued State/Local Response

ADEM has referred this Site to EPA because they do not have the funds currently available to implement this action in a time critical manner. EPA will continue to coordinate with ADEM staff throughout the response.

III. THREATS TO PUBLIC HEALTH AND WELFARE OR THE ENVIRONMENT< AND STATUTORY AND REGULATORY AUTHORITIES

A. Threats to Public Health and Welfare

Hydrochloric acid and chromic acid are CERCLA listed hazardous substances as defined by section 101(14) of CERCLA and the electroplating solutions meet RCRA hazardous waste (D007) criteria. CERCLA contaminants, if released from the Site, have the capability of presenting a potential hazard to the general public. The threats come primarily from human exposure to these hazardous substances in the electroplating vats and containers (i.e. trespasser) as well as a potential for surface or air migration. Direct contact, ingestion, and inhalation of these acids, bases, and oxidizers, and D007 wastes are the primary pathways of exposure. Continued exposure to these wastes may cause potential acute and chronic health effects to the trespassers or nearby residents.

Site conditions meet the requirements for initiating a time-critical removal action according to criteria listed in Section 300.415(b)(2) of the NCP:

Section 300.415(b)(2)(i) "Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants." The Site contains toxic, flammable and corrosive liquids. Mixing of these incompatible materials could result in a fire or explosion. An on-site fire would impact hazardous substances stored on-site, potentially exposing

nearby residents, as well as responders, to contaminated smoke and fumes. Homes are located within a two hundred feet of the Site. A creek leading to the scenic, Sweetwater Creek is within 10' of the building. The Site is unsecured and frequented by trespassers and vandals. Trespassers are potentially exposing themselves to hazardous substances by moving containers and removing copper in areas containing suspected hazardous substances. Such activities are also damaging the structural integrity and security of the building further increasing the likelihood of actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances.

Section 300.415(b)(2)(iii) "Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release." An estimated 24 vats, 50-75 drums, and hundreds of smaller containers are abandoned on-site. Numerous containers and vats are open and leaking their contents. Many vats and drums and containers are in poor condition and require special handling to minimize additional releases. Suspected chemicals were observed releasing from the drums onto the ground. The areas of the building, particularly the roof and the framing supporting the roof, are severely dilapidated, thus exposing these areas to precipitation and the potential for stormwater to transport residual contaminants both into adjacent soils, sediments, and ultimately off site through surface runoff into the adjacent creek.

Section 300.415(b)(2)(vi) "Threat of fire or explosion." The Site contains toxic, flammable, and corrosive liquids. Mixing of these incompatible materials could result in a fire or explosion. An on-site fire would impact hazardous substances stored on-site, potentially exposing nearby residents, as well as responders, to contaminated smoke and fumes.

Section 300.415(b)(2)(vii). "The availability of other appropriate Federal or State response mechanisms to respond to the release." At this time there exist no additional federal and state, mechanisms that are able to take responsibility for this removal action. EPA initially assumed cleanup activities at the Site through a State referral.

Section 300.415(b)(2)(v) "Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released." Releases from the drums, vats, containers, and process areas have contaminated the surface areas and likely the sub-surface areas on-site. Many of the drums, vats and containers were stored in open exposure to the elements. The roof and supporting structures are severely damaged and continue to leak precipitation into the electroplating vats and surrounding secondary containment. The precipitation leaving these exposed areas is likely to transport hazardous substances, pollutants, or contaminants both into the soils on-site, and ultimately off-site through surface runoff. Annual rainfall in the area where the Site is located is approximately 52 inches per year.

B. Threats to the Environment

Site conditions meet the requirements for initiating a time-critical removal action according to criteria listed in Section 300.415(b)(2) of the NCP:

Section 300.415(b)(2)(i) "Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants." The Site contains CERCLA and RCRA hazardous wastes in open electroplating vats. A creek leading to the scenic, Sweetwater Creek is within 10' of the building. Sediment samples collected from the adjacent creek contained elevated concentrations of metals including chromium.

Section 300.415(b)(2)(iii) "Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release." An estimated 24 vats, 50-75 drums, and hundreds of smaller containers are abandoned on-site. Numerous containers and vats are open and leaking their contents. Many vats and drums and containers are in poor condition and require special handling to minimize additional releases. Suspected chemicals were observed releasing from the drums onto the ground. The areas of the building, particularly the roof and the framing supporting the roof, are severely dilapidated, thus exposing these areas to precipitation and the potential for stormwater to transport residual contaminants both into adjacent soils, sediments, and ultimately off site through surface runoff into the adjacent creek.

Section 300.415(b)(2)(v) "Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released." Releases from the drums, vats, containers, and process areas have contaminated the surface areas and likely the sub-surface areas on-site. Many of the drums, vats and containers were stored in open exposure to the elements. The roof and supporting structures are severely damaged and continue to leak precipitation into the electroplating vats and surrounding secondary containment. The precipitation leaving these exposed areas is likely to transport hazardous substances, pollutants, or contaminants both into the soils on-site, and ultimately off-site through surface runoff into the adjacent creek. Annual rainfall in the area where the Site is located is approximately 52 inches per year.

Section 300.415(b)(2)(vii). "The availability of other appropriate Federal or State response mechanisms to respond to the release." At this time there exist no additional federal and state, mechanisms that are able to take responsibility for this removal action. EPA initially assumed cleanup activities at the Site through a State referral.

IV. ENDANGERMENT DETERMINATION

Actual or threatened releases of the hazardous substances from the Site, if not addressed by implementing the removal action selected in this Action Memorandum, may present an imminent and substantial endangerment to the public health or welfare or the environment.

V. PLANNED REMOVAL ACTIONS

A. Proposed Actions

1. Initial characterization, segregation and staging of all drums, and containers;
2. Delineation and characterization of contamination associated with the on-site surficial soil and sediment contamination;
3. Profile, bulk, and dispose of liquids and sludge from vats, and other containers inside the building;
4. Demolition of the portions of the dilapidated structure to sufficiently allow for access to the plating lines, and the characterization and delineation of contamination of the soils beneath the compromised building foundation in areas associated with former plating lines;
5. Disposal of demolition material and debris associated with Site;
6. Dismantle and dispose of piping and equipment associated with the plating operation;
7. Transportation and offsite disposal of waste materials generated by this and subsequent removal actions in compliance with Federal regulations including the CERCLA off site rule;
8. Refer the Site back to ADEM following completion of response actions for post removal site control.

1. Contribution to remedial performance

The Site is not expected to meet NPL listing criteria. However, to the extent practicable, removal measures conducted will not impede future responses based on available information. No further federal response is anticipated following response implementation.

2. Description of alternative technologies

No alternative technologies have been determined at this time.

3. Environmental Evaluation/Cost Analysis (EE/CA)

This is a time-critical removal action, and there is not a 6 month planning period, thus, an EE/CA is not required.

4. Applicable or relevant and appropriate requirements (ARAR)

EPA has prepared and sent a letter requesting applicable ARARs from ADEM relevant to removal activities on February 18, 2009. In accordance with Section 300.415(i) of the NCP, on-site removal actions conducted under CERLCA are required to attain ARARs to the extent practicable, considering the exigencies of the situation. While the administrative requirements need not be met for on-site applicable and/or relevant and appropriate requirements, substantive requirements will be met to the extent practicable for both applicable and/or relevant and appropriate requirements. Off-site removal activities need only comply with all applicable federal and state laws, unless there is an emergency.

5. Proposed Schedule

Response actions at the Site will continue upon the approval of this Action Memorandum. The removal action is expected to take between two and three months and is highly dependent of weather conditions.

VI. ESTIMATED COSTS

<i>Extramural Costs:</i>	<u><i>Current Ceiling</i></u>	<u><i>Proposed Ceiling</i></u>
<u>Regional Allowance Cost:</u>		
ERRS Contractor	\$200,000	\$569,876
<u>Non-Regional Allowance Cost:</u>		
START	\$50,000	\$85,000
<u>Subtotal, Extramural Costs:</u>	\$250,000	\$654,876
Contingency (20%)	<u>\$50,000</u>	<u>\$130,975</u>
TOTAL SITE BUDGET	\$250,000	\$785,851

VII. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

If action is significantly delayed or not taken, there will be a continued release of the CERCLA listed hazardous substances, hydrochloric acid and chromic acids at or below RCRA hazardous waste (D002) levels into the environment increasing the possibility of exposure to the public and to the environment. In addition, the public will potentially be exposed to unsafe levels of chromium.

VIII. OUTSTANDING POLICY ISSUES

None

IX. ENFORCEMENT

ERRB anticipates that this will be a fund-lead response. The OSC will continue to coordinate with the CERCLA Office of Legal Support on enforcement strategy. See attached Enforcement Addendum for detailed enforcement strategy information.

The total EPA costs for this removal action based on full-cost accounting practices that will be eligible for cost recovery are estimated to be \$1,114,729.

X. RECOMMENDATION

This decision document represents the selected removal action for the Richards Plating Site in Florence, Lauderdale County, Alabama, developed in accordance with CERCLA, as amended, and not inconsistent with the NCP. This decision is based on the administrative record for the Site.

Conditions at the Site meet the NCP section 300.415 (b)(2) criteria for a removal action. I recommend your approval of the Action Memorandum to allow a removal response. The total project ceiling if approved will be \$785,851. Of this an estimated \$569,876 comes from Regional Removal Allowance.

Approval: _____

Franklin E. Hill, Director
Superfund Division

Date: _____

3/18/09

Disapproval: _____

Franklin E. Hill, Director
Superfund Division

Date: _____

Attachment