



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

September 17, 2020

REPLY TO THE ATTENTION OF:

S-6J

MEMORANDUM

SUBJECT: ACTION MEMORANDUM – Request for Funding for a Time-Critical Removal Action at the Specified Plating Site, Chicago, Cook County, Illinois (Site ID #C5RC)

FROM: Brad Benning, OSC
Emergency Response Branch 2

THRU: Samuel Borries, Chief
Emergency Response Branch 2

TO: Douglas Ballotti, Director
Superfund and Emergency Management Division

I. PURPOSE

The purpose of this Action Memorandum is to request and document your approval to expend up to \$916,337 to conduct a time-critical removal action at the Specified Plating Site (the Site) in Chicago, Cook County, Illinois. This Action Memorandum describes the response actions EPA selected.

The response actions proposed herein are necessary to mitigate threats to public health, welfare, and the environment posed by the presence of uncontrolled hazardous substances at the Site. The U.S. Environmental Protection Agency (EPA) documented the presence of hazardous substances at the Site, as defined by Section 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S. Code (U.S.C.) § 9601.

The time-critical removal action proposed herein is to prepare site plans, including a Work Plan, site-specific Health and Safety Plan (HASP), and Emergency Contingency Plan; establish site security and an incident command post; inventory and perform hazard characterization on substances contained in drums and other containers; perform sampling and analysis; and stabilize/contain, transport and dispose off-site any hazardous substances, pollutants and contaminants at a CERCLA-approved disposal facility in accordance with EPA's Off-Site Rule (40 Code of Federal Regulations [C.F.R.] § 300.440).

Response actions will be conducted in accordance with Section 104(a)(1) of CERCLA, 42 U.S.C. § 9604(a)(1) and Section 300.415 of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 C.F.R. § 300.415, to abate or eliminate the immediate threat posed to public health and/or the environment by the presence of the hazardous substances at the Site. The uncontrolled conditions of the hazardous substances present at the Site and the potential threats they present require that this action be classified as a time-critical removal action. EPA's actions will require approximately 45 working days to complete.

There are no nationally significant, or precedent-setting issues associated with the Site.

II. SITE CONDITIONS AND BACKGROUND

Site Name: Specified Plating Company
Site ID: C5RC
RCRA ID: ILT180011611
Category: Time-Critical Removal Action

A. Site Description

Specified Plating Co. ("Specified Plating") (Figure 1) started operations in 1945, specializing in zinc electroplating and powder coatings located in Chicago, Illinois. Site operations ceased in October of 2019 due to numerous code violations from the City of Chicago Fire and Building Departments, including the shut-off of the gas service and non-functioning fire suppression system. The Site is made up of several connecting buildings comprising approximately 16,850 square feet. The Site operated up to three plating lines (rack/barrel), a powder coating line, and a wastewater treatment facility and associated maintenance areas.

On November 8, 2019, the EPA received a referral from the City of Chicago Department of Public Health ("CDPH") requesting assistance regarding the dangerous conditions on Site, including Specified Plating's chemical storage, improper cyanide chemical management, and facility disrepair. In CDPH's request, CDPH noted that there were numerous plating vats, totes, and containers in poor condition that contained unknown chemicals. CDPH also noted that the phones lines on Site were no longer operational. CDPH considered the facility abandoned when CDPH representatives could not enter the facility. Due to the lack of heat and fire suppression, CDPH had immediate concerns for vandalism, fires and potential chemical releases to the area.

1. Removal Site Evaluation

On-Scene Coordinator ("OSC") Benning conducted an initial visit with the site operator on December 5, 2019, to assess site conditions. An access agreement was obtained along with a limited inventory of chemicals remaining at the Site. A full removal assessment with the Illinois EPA (Charlene Thigpen) and Superfund Technical Assessment and Response Team ("START") was then conducted on January 10, 2020, to document site

conditions and obtain samples to confirm the presence of hazardous substances (acids, caustics, cyanides and heavy metals) in the remaining plating line. According to the operator, residual raw plating chemicals in containers were added to the appropriate vats (2500 gal. typical) to facilitate bulk disposal. The inventory provided to EPA consisted of:

- 3 vats – Caustic solution (7500 gal.)
- 2 vats – Acid solution (5000 gal.)
- 2 vats – Zinc Chloride (5000 gal.)
- 2 vats – Zinc Cyanide (5000 gal.)
- 1 vat - Black Trivalent Chrome (2500 gal.)
- 1 vat – Yellow Chrome (2500 gal.)
- 1 vat – Black Zinc Hex Chrome (2500 gal.)
- 1 drum – Yellow Dye
- 1 skid – Sodium Metabisulfate
- 2 skids – Carbon
- 2 skids – Diatomaceous Earth
- Partial bags – TSP
- 1 filter bag from WWTP
- 5 totes – Zinc Plating Solution (1500 gal.)
- 6 bags (cy) – Floor Debris

At the direction of the EPA OSC, START contractors collected samples from 5 vats containing liquids, 2 composite samples from floor debris bags and 1 sample from under an old closed plating line. The following laboratory results confirm that all 8 samples exhibit one or more of the characteristics of hazardous waste, a summary table is provided below:

PRELIMINARY WASTE SAMPLE LABORATORY RESULTS

Specified Plating Site
Chicago, Cook County, Illinois

Analyte	CAS no.	TCLP Limits ¹ (mg/L)	SP-LW-001-0120	SP-LW-002-0120	SP-LW-003-0120	SP-LW-004-0120	SP-FD-005-0120	SP-FD-006-0120	SP-FD-007-0120	SP-LW-008-0120
Container			Hot Alkaline Wash Vat	Sulfuric Acid Vat	Zinc Chloride Vat	Yellow Chromate Vat	Floor Debris Tote	Floor Debris Tote	Floor of Former Oven Area	Zinc Cyanide Vat
Metals (mg/L)										
Arsenic, Inorganic	7440-38-2	5.0	3.5	1.1	0.25	0.004	0.011	0.007	0.016	0.39
Barium	7440-39-3	100	0.43	0.39	0.11	0.45	0.07	0.11	0.12	0.2
Cadmium (Diet)	7440-43-9	1.0	0.001	0.75	0.0062	0.086	0.00035	0.074	0.022	0.013
Chromium, Total	7440-47-3	5.0	470	56	0.017	4900	0.21	0.056	0.43	0.14
Lead and Compounds	7439-92-1	5.0	0.23	46	0.031	0.0014	0.027	0.1	5.5	0.029
Selenium	7782-49-2	1.0	0.22	0.0022	0.065	0.0022	0.024	0.021	0.013	0.16
Silver	7440-22-4	5.0	0.048	5.4	0.067	0.081	0.084	0.14	0.0074	5
Mercury (Elemental)	7439-97-6	0.2	0.00015	0.00026	0.00015	0.00035	0.00022	0.00025	0.00003	0.0006
Cyanide (mg/L)	57-12-5	—	0.532	0.138	3440	0.298	1780	1450	806	9120
pH (<2.0 or >12.5)	—	—	14	0	14	3	10.19	8.18	3	14

Notes:

¹ EPA RCRA Hazardous Waste Characterization 40 CFR 261.20-24

CAS no. - Chemical Abstracts Service number

mg/L - Milligram per liter

TCLP - Toxicity Characteristic Leaching Procedure

Sample result exceeds TCLP Limits

Sample # SP-LW-001-0120 is a Hot Alkaline Wash Vat, shows that the vat contains hazardous waste: exceeding the toxicity characteristic for chromium (470 mg/l) and is a strong caustic (pH = 14) exhibiting the corrosivity characteristic.

Sample # SP-LW-002-0120 is a Sulfuric Acid Vat, shows that the vat contains hazardous waste: exceeding the toxicity characteristic for chromium (56 mg/l) and silver (5.4 mg/l) and is a strong acid (pH = 0) exhibiting the corrosivity characteristic.

Sample # SP-LW-003-0120 is a Zinc Chloride Vat, shows that the vat contains hazardous waste, exhibiting the reactivity characteristic for cyanide (3440 mg/l) and is a strong caustic (pH = 14) exhibiting the corrosivity characteristic.

Sample # SP-LW-004-0120 is a Yellow Chromate Vat, shows that the vat contains hazardous waste, exceeding the toxicity characteristic for chromium (4900 mg/l) and is acidic (pH = 3)

Sample # SP-LW-005-0120 is Floor Debris that shows that the material exhibits the reactivity characteristic for cyanide (1780 mg/l) and is alkaline (pH=10.19).

Sample # SP-006-0120 is Floor Debris that shows the material exhibits the reactivity characteristic for cyanide (1450 mg/l) and is alkaline (pH=8.18).

Sample # SP-007-0120 is Floor Debris from under an old plating line, exceeding the toxicity characteristic for lead (5.5 mg/l) and exhibits the reactivity characteristic for cyanide (806 mg/l) and is acidic (pH=3).

Sample # SP-LW-008-0120 is a Zinc Cyanide Vat, shows that the vat contains hazardous waste: exceeding the toxicity characteristic for silver (5 mg/l) and is a strong caustic (pH = 14) exhibiting the corrosivity characteristic, and exhibits the reactivity characteristic for cyanide (9120 mg/l).

2. Physical Location

The Site is located at 320 N. Harding Avenue, Chicago, Cook County, Illinois 60624. The Site is in a residential and industrial area, bounded north by a church and commercial buildings, east by Harding Ave with residential and industrial properties, south by Lake Street and Chicago Transit Authority railway with commercial properties beyond Lake Street, and west by Pulaski Road with a school and commercial buildings around the Site. Residential properties are located as close as 200 feet from the Site. The geographical coordinates for the Site are 41.886127° north latitude and 87.724915° west longitude.

EPA conducted an Environmental Justice (EJ) analysis for the Site (see Attachment I). EPA screened the area surrounding the Site with Region 5's EJ Screen Tool. Region 5 has reviewed environmental and demographic data for the area surrounding the Site and determined there is a potential for EJ concerns at this location.

3. Site Characteristics

Specified Plating has operated since 1945 as a family business, specializing in zinc electroplating and powder coating. At one time, Specified Plating operated three plating lines and processed Trivalent Clear Chromate, Hexavalent Yellow Dichromate, Silver Activated Black Hexavalent Chromate for coating metal parts. At the time of the Site closure in October of 2019, only one plating line was in operation. The facility consisted of several interconnected buildings totaling approximately 16,850 sq. ft., including three plating lines, a powder coating line, a wastewater treatment plant, and several storage and maintenance areas.

The buildings on Site are in poor condition and have been cited for numerous building and fire code violations for electrical issues, chemical storage, structural problems with portions of a roof and exterior south wall, no operating fire suppression system, and no building heat due to the utility shutting off the gas. After the Site closed in October 2019, the operator has attempted limited cleanup activities, which include consolidating floor debris around the plating lines into cubic yard sacks and consolidating unused plating chemicals into the appropriate vats for future bulk disposal. Financial resources are not available to conduct any disposal or additional work.

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

A release or threat of release of hazardous substances, pollutants, or contaminants is present at the Site. EPA identified two vats labeled sodium hydroxide and sulfuric acid. EPA confirmed the presence of cyanide, a hazardous substance as defined by Section 101(14) of CERCLA, and the presence of characteristic hazardous waste, including corrosives, lead and chromium. EPA inventoried approximately 30 - 40,000 gallons of

suspected plating waste contained within 12 vats, as well as a significant amount of floor debris surrounding all the plating lines likely contaminated with cyanides and heavy metals.

Exposure could occur from dermal contact with material in vats, containers, or from leaking and spillage of hazardous substances onto the floor or other surfaces; incidental ingestion of material following dermal contact; inhalation of volatile materials in open containers; inhalation via fugitive dust generation; and inhalation of toxic vapors released into the air via fire. Potential human receptors include nearby residents, trespassers, emergency response workers, and future site workers. Trespassing and vandalism are likely to occur on Site as the operator monitors the location only 1-2 days a week. Residential properties are located within 200 feet of the Site.

5. National Priorities List (NPL) status

The Site is not on the NPL and is not expected to be scored for the NPL.

6. Maps, pictures and other graphic representations

Photographs and maps are included as attachments to the Action Memorandum.

B. Other Actions to Date

1. Previous actions

No previous actions have been taken at the Site.

2. Current actions

During the initial Site visit on October 17, 2019, with City of Chicago Department of Public Health and Fire Departments, access was unavailable as the operator failed to show up at the facility. Inspection documents from the City Departments were made available and representatives of the City Departments agreed to continue monitoring the property.

EPA returned to the Site on December 5, 2019, and met with the operator, conducted a visual observation of the facility and obtained an inventory of materials.

On January 10, 2020, EPA completed a removal assessment. Upon confirmation of the presence of open vats containing cyanide, sulfuric acid, and caustic liquids adjacent to one another, EPA drafted an action memorandum for a possible Time-Critical Removal Action and started enforcement actions with the operator.

State and Local Authorities' Roles

Dave Graham, Assistant Commissioner of the City of Chicago Department of Public Health sent a letter on November 8, 2019 requesting assistance from EPA. CDPH and the City of Chicago does not have the resources to mitigate the threat of release. In an e-mail dated November 14, 2019, the Illinois Environmental Protection Agency ("IEPA") indicated they do not have the resources to deal with the immediate nature of hazards assumed to exist at Specialized Plating site.

1. State and local actions to date.

CDPH and other City inspectors conducted routine inspections of the property to determine compliance with city health, building and fire codes. Significant violations were accumulating at the facility. When the facility closed and the City of Chicago could not gain access, it contacted EPA for assistance.

IEPA records indicated the Site is a RCRA generator. IEPA does not have resources to conduct a potential removal action and has requested EPA take the lead on cleanup actions.

2. Potential for continued State/Local Response.

EPA will coordinate the cleanup of the Site with the City of Chicago and IEPA. Any contamination related to long term remediation (for example: groundwater contamination) will be referred to IEPA.

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

The conditions at the Site present a threat to the public health or welfare, and the environment, and meet the criteria for an emergency removal action as provided for in the NCP, 40 C.F.R. § 300.415(b)(1), based on the factors in 40 C.F.R. § 300.415(b)(2). These factors include, but are not limited to, the following:

§ 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;

Hazardous substances are present in vats and other containers. Hazardous substances represent an actual or potential exposure threat to nearby human populations. Possible exposure routes for hazardous substances include dermal contact with material in open vats or inhalation from leaking and spillage of hazardous substances onto the floor or other surfaces; incidental ingestion of material following dermal contact; inhalation of volatile materials in open containers; inhalation via fugitive dust generation; and inhalation of toxic vapors released into the air via fire. Potential human receptors include trespassers, emergency response workers, and nearby residents. There is a high

probability trespassing will occur as the operator has been making limited visits to the Site. Residential properties are located within 200 feet of the Site.

Hazardous substances, including caustic and acidic liquids, cyanide and heavy metals, are present in vats and in floor debris throughout the buildings.

Information on toxicological effects of these hazardous substances, pollutants, and contaminants are listed below and referenced in the Administrative Record (Attachment II).

Chromium: Breathing high levels of chromium(VI) can cause irritation to the lining of the nose, nose ulcers, runny nose, and breathing problems, such as asthma, cough, shortness of breath, or wheezing. The concentrations of chromium in air that can cause these effects may be different for different types of chromium compounds, with effects occurring at much lower concentrations for chromium(VI) compared to chromium(III). The main health problems seen in animals following ingestion of chromium(VI) compounds are irritation and ulcers in the stomach and small intestine and anemia. Sperm damage and damage to the male reproductive system have also been seen in laboratory animals exposed to chromium(VI). The U.S. Department of Health and Human Services, the International Agency for Research on Cancer (IARC), and the EPA have determined that chromium(VI) compounds are known human carcinogens. In workers, inhalation of chromium(VI) has been shown to cause lung cancer. Chromium(VI) also causes lung cancer in animals (AR #4).

Lead: Lead is a hazardous substance, as defined by Section 101(14) of CERCLA; *see also* 40 C.F.R. § 302.4. The effects of lead are the same whether it enters the body through breathing or swallowing. Lead can affect almost every organ and system in the body. The main target for lead toxicity is the nervous system, both in adults and children. Long-term exposure of adults can result in decreased performance in some tests that measure functions of the nervous system. It may also cause weakness in fingers, wrists, or ankles. Lead exposure also causes small increases in blood pressure, particularly in middle-aged and older people, and can cause anemia. Exposure to high lead levels can severely damage the brain and kidneys in adults or children and ultimately cause death. In pregnant women, high levels of exposure to lead may cause miscarriage. High-level exposure in men can damage the organs responsible for sperm production (AR #3).

Sodium hydroxide: Sodium hydroxide is very corrosive and can cause severe burns in all tissues that come in contact with it. Inhalation of low levels of sodium hydroxide as dusts, mists or aerosols may cause irritation of the nose, throat, and respiratory airways. Inhalation of higher levels can produce swelling or spasms of the upper airway leading to obstruction and loss of measurable pulse; inflammation of the lungs and accumulation of fluid in the lungs may also occur. Ingestion of solid or liquid sodium hydroxide can cause spontaneous vomiting, chest and abdominal pain, and difficulty swallowing. Corrosive injury to the mouth, throat, esophagus, and stomach is very rapid and may result in perforation, hemorrhage, and narrowing of the gastrointestinal tract. Case reports indicate that death results from shock, infection of the corroded tissues, lung damage, or loss of

measurable pulse. Skin contact with sodium hydroxide can cause severe burns with deep ulcerations. Pain and irritation are evident within 3 minutes but contact with dilute solutions may not cause symptoms for several hours. Contact with the eye may produce pain and irritation, and in severe cases, clouding of the eye and blindness. Long-term exposure to sodium hydroxide in the air may lead to ulceration of the nasal passages and chronic skin irritation (AR #2).

Sulfuric acid: Contact with sulfuric acid will burn skin and breathing sulfuric acid can result in tooth erosion and respiratory tract irritation. Drinking sulfuric acid will burn the mouth, throat, and stomach; it can result in death. Sulfuric acid in the eyes will cause the eyes to water and burn. People who have breathed large quantities of sulfuric acid at work have shown an increase in cancers of the larynx. The IARC has determined that occupational exposure to strong inorganic acid mists containing sulfuric acid is carcinogenic to humans (AR #1).

Cyanide: Exposure to high levels of cyanide for a short time harms the brain and heart and can even cause coma and death. Workers who inhaled low levels of hydrogen cyanide over a period of years had breathing difficulties, chest pain, vomiting, blood changes, headaches, and enlargement of the thyroid gland (AR #5).

§ 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;

EPA inventoried approximately twelve large open vats (30-40,000 gal.), five totes (1500 gal.) and 6 cubic yard sacks of floor debris.

Laboratory results documented that sampled materials met the characteristic for hazardous waste, including corrosive and toxic waste. The vats are partially below grade and EPA cannot determine their condition. There is a very high potential of a release of hazardous substances from bulk storage containers, due to lack of heat throughout the buildings and limited oversight of the property.

§ 300.415(b)(2)(v) - Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released;

The buildings on Site are in poor condition. City inspections noted the roof is leaking. Sulfuric acid, which was identified at the Site in open top vats, is water reactive. This chemical can react violently with water producing heat, fumes, and spattering. Heavy rain or snow could cause further water infiltration into the building, increasing the risk of water reacting with sulfuric acid, and other containers of unknown chemicals which may also be water reactive, thereby causing an increased threat of fire. The facility does not have heat and winter months could cause freezing pipes and accumulating snow concerns for the buildings on Site. As such, weather conditions could cause hazardous substances, pollutants, or contaminants to be released.

§ 300.415(b)(2)(vi) - Threat of fire or explosion;

City inspections identified electrical violations at the facility and the operator has been using propane heaters since the gas was shut off. The facility is only occupied 1-2 days per week allowing the potential for trespassers and vandalism to occur at the Site. Other threats of fire or explosion exist at or near the Site including incompatible chemicals being stored near each other as well as water reactive chemicals.

The Site is without an operational fire suppression system. If a fire occurred, it could result in the release of toxic vapors.

§ 300.415(b)(2)(vii) - The availability of other appropriate federal or State response mechanisms to respond to the release;

Neither the City of Chicago nor the IEPA have the resources to address the conditions at the Specified Plating Site.

IV. ENDANGERMENT DETERMINATION

Given the site conditions, the nature of the known and suspected hazardous substances on Site, and the potential exposure pathways described in Sections II and III above, actual or threatened releases of hazardous substances from this Site, if not addressed by implementing the response actions selected in this Memorandum, may present an imminent and substantial endangerment to public health, welfare, or the environment.

V. PROPOSED ACTIONS

A. Proposed Actions

1. Proposed action description

The response actions described in this memorandum directly address the actual or threatened release of hazardous substances, pollutants or contaminants at the Site which may pose an imminent and substantial endangerment to public health or welfare or to the environment. These response actions do not impose a burden on affected property disproportionate to the extent to which that property contributes to the conditions being addressed.

The OSC proposes to undertake the following actions to mitigate threats posed by the presence of hazardous substances at the Site:

1. Develop and implement a site-specific HASP, including an Air Monitoring Plan, and a Site Emergency Contingency Plan;
2. Develop and implement a Site Security Plan;

3. Develop and implement a Workplan to address the scope of work described below;
4. Inventory and perform hazard characterization on all substances contained in drums, tanks, and other containers;
5. Perform sampling and analysis;
6. Dismantle and decontaminate any process equipment, vats, tanks, piping, and building components that could be discovered associated with plating;
7. Remove floor debris suspected of being contaminated with hazardous substances. Material will be disposed of in accordance with federal and state requirements.
8. Consolidate and package hazardous substances, pollutants and contaminants for transportation and off-site disposal in accordance with the EPA Off-Site Rule, 40 C.F.R. § 300.440;
9. Take any other response actions to address any release or threatened release of a hazardous substance, pollutant or contaminant that the EPA OSC determines may pose an imminent and substantial endangerment to the public health or the environment.

The OSC will conduct removal actions in a manner not inconsistent with the NCP. The OSC will initiate planning for provision of post-removal site control consistent with the provisions of NCP § 300.415(l).

The threats posed by uncontrolled substances considered hazardous meet the criteria listed in NCP § 300.415(b)(2), and the response actions proposed herein are consistent with any long-term remedial actions which may be required. Elimination of hazardous substances, pollutants and contaminants that pose a substantial threat of release is expected to minimize substantial requirements for post-removal Site controls.

Detailed cleanup contractor costs are presented in Attachment III.

2. Contribution to remedial performance

The proposed action should not impede future remedial performance.

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

Not Applicable

4. Applicable or relevant and appropriate requirements (ARARs)

All applicable, relevant, and appropriate requirements (ARARs) of Federal and State laws will be complied with to the extent practicable considering the exigencies of the circumstances. On February 24, 2020, EPA sent a letter to Jerry Willman of the Illinois Environmental Protection Agency (IEPA), asking for Illinois ARARs which may apply. IEPA responded on March 6, 2020.

Chemical Specific:

- 40 C.F.R. § 262.11 requires a proper hazardous waste determination must be made on all wastes generated from removal actions including substances in containers, drums, pits, waste piles and tanks along with any decontamination washes or rinsates.
- 40 C.F.R. § 261, Subpart B requires that all hazardous waste must be properly packaged, with labels, markings and placards prior to transport (see also 40 C.F.R. §262.30, 262.31, 262.32, and 263.33).
- 40 C.F.R. § 262.34 requires that hazardous waste containers shall not be accumulated on-site for greater than 90 days without a hazardous waste permit for storage.
- 40 C.F.R. § 261, Subpart B requires hazardous waste must be manifested as such for transport to a permitted treatment, storage, or disposal facility (TSDF) in accordance with 40 C.F.R. § 262, Subpart B.
- Hazardous waste in containers shall be managed in accordance with the standards of 40 C.F.R. § 265, Subpart I.
- For all hazardous waste related equipment, structures and pads, remove or decontaminate all hazardous waste residues, contaminated containment components, contaminated soils, and structures and equipment contaminated with waste and manage them as hazardous waste unless 40 C.F.R. § 261.3(d) applies.

5. Project Schedule

The time-critical removal actions will require approximately 45 working days to complete.

B. Removal Project Ceiling Estimate – Extramural Costs:

<u>Regional Removal Allowance Costs:</u>	
Total Cleanup Contractor Costs (Includes 20% contingency)	\$738,165
<u>Other Extramural Costs Not Funded from the Regional Allowance</u>	
Total START, including multiplier costs	\$58,650
Subtotal, Extramural Costs	\$796,815
Extramural Costs Contingency (15% of Subtotal, Extramural Costs)	\$119,522
TOTAL REMOVAL ACTION PROJECT CEILING	\$916,337

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

Given the site conditions, the nature of the hazardous substances and pollutants or contaminants documented on site, and the potential exposure pathways to nearby populations described in Section II, III, and IV, above, actual or threatened releases of hazardous substances and pollutants or contaminants from this Site, if not addressed by implementing or delaying the response actions selected in this Action Memorandum, may present an imminent and substantial endangerment to public health, welfare, or the environment, increasing the potential that hazardous substances will be released, thereby threatening the adjacent population and the environment.

VII. OUTSTANDING POLICY ISSUES

None.

VIII. ENFORCEMENT

For administrative purposes, information concerning the enforcement strategy for this Site is contained in the Confidential Enforcement Addendum. Estimated EPA intramural costs are about \$32,750.

The total EPA costs of this removal action based on full-cost accounting practices that will be eligible for cost recovery are estimated to be \$1,705,035¹.


$$(\$916,337 + \$32,750) + (79.65\% \times \$949,087) = \$1,705,035$$

IX. RECOMMENDATION

This decision document represents the selected removal actions for the Specified Plating Site located in Chicago, Cook County, Illinois, developed in accordance with CERCLA, as amended, and is not inconsistent with the NCP. This decision is based upon the Administrative Record for the Site.

Conditions at the Site meet the NCP § 300.415(b)(2) criteria for emergency and time-critical removal actions. The total project ceiling, if approved, will be \$916,337, of which, as much as \$857,687 may be used from the Regional removal allowance. I recommend your approval of the proposed removal action. You may indicate your decision by signing below.

APPROVE:

X 

Douglas Ballotti, Director
Superfund & Emergency Management Division
Signed by: DOUGLAS BALLOTTI

DISAPPROVE

X

Douglas Ballotti, Director
Superfund & Emergency Management Division

Enforcement Addendum

Figures:

- 1 – Site Location Map
- 2 – Site Layout Map

Photographs

Attachments:

- I. Environmental Justice Analysis
- II. Administrative Record Index

¹ Direct Costs include direct extramural costs and direct intramural costs. Indirect costs are calculated based on an estimated indirect cost rate expressed as a percentage of site specific direct costs, consistent with the full cost accounting methodology effective October 2, 2000. These estimates do not include pre-judgement interest, do not take into account other enforcement costs, including Department of Justice costs, and may be adjusted during the course of a removal action. The estimates are for illustrative purposes only and their use is not intended to create any rights for responsible parties. Neither the lack of a total cost estimate nor deviation of actual total costs from this estimate will affect the United States right to cost recovery.

- III. Detailed Cleanup Contractor Estimate
- IV. Independent Government Cost Estimate

cc: S. Ridenour, U.S. EPA, 5104A/B517F (Ridenour.Steve@epa.gov)
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BCC PAGE HAS BEEN REDACTED

**NOT RELEVANT TO SELECTION
OF REMOVAL ACTION**

**ENFORCEMENT ADDENDUM
HAS BEEN REDACTED – TWO PAGES**

**ENFORCEMENT CONFIDENTIAL
NOT SUBJECT TO DISCOVERY
FOIA EXEMPT**


**NOT RELEVANT TO SELECTION
OF REMOVAL ACTION**


FIGURES





PHOTO LOG

	Number	1
	Description	Specified plating Site
	Photographer	B. Benning
	Date	12/05/2019

	Number	2
	Description	Plating Line with cyanide, caustic and acid vats.
	Photographer	B. Benning
	Date	12/05/2019



Number	3
Description	Zn Cyanide vat (2500 gal.)
Photographer	B. Benning
Date	12/05/2019




Number	4
Description	Zn Plating Solution Totes
Photographer	B. Benning
Date	12/05/2019




Number	5
Description	Floor debris solids/elevated cyanide (6 sacks)
Photographer	B. Benning
Date	01/10/2020




Number	6
Description	Cyanide Vat (2500-3000g.)
Photographer	B. Benning
Date	01/10/2020

	Number	7
	Description	Filter bag / WWTP sludge
	Photographer	B. Benning
	Date	01/10/2020

	Number	8
	Description	Floor debris exposed after removal of vats from old plating line
	Photographer	B. Benning
	Date	01/10/2020

	Number	9
	Description	Old non-operational plating line
	Photographer	B. Benning
	Date	12/05/2019

	Number	10
	Description	Previous operating plating line vats are 3-4 feet below surface
	Photographer	B. Benning
	Date	12/05/2019

ATTACHMENT I

U.S. ENVIRONMENTAL PROTECTION AGENCY
REMOVAL ACTION

ENVIRONMENTAL JUSTICE ANALYSIS
FOR
SPECIFIED PLATING SITE
CHICAGO, COOK COUNTY, ILLINOIS

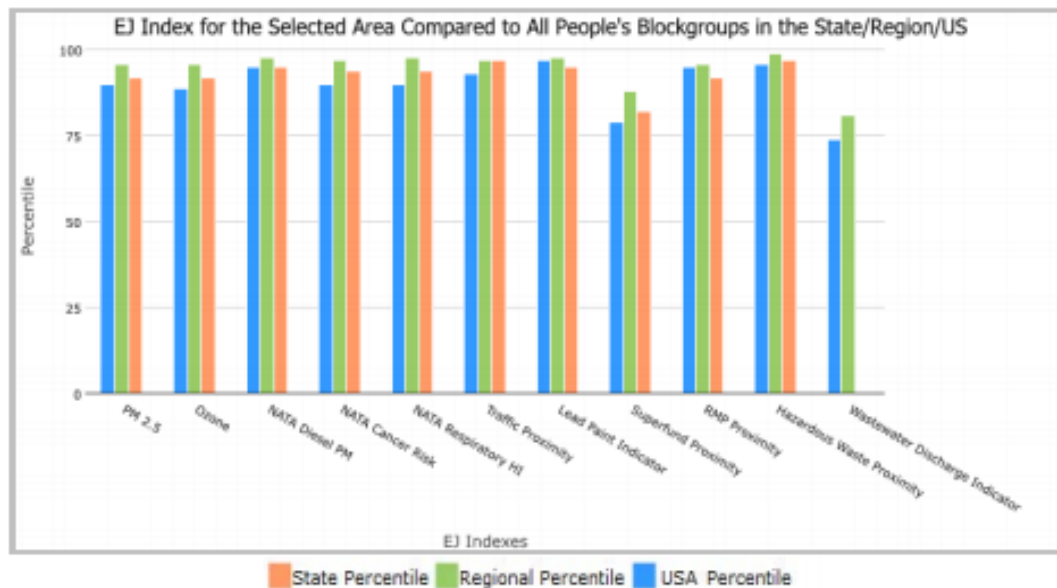
1 miles Ring Centered at 41.886125,-87.724620, ILLINOIS, EPA Region 5

Approximate Population: 36,250

Input Area (sq. miles): 3.14

specified platingsite

Selected Variables	State Percentile	EPA Region Percentile	USA Percentile
EJ Indexes			
EJ Index for PM2.5	92	96	90
EJ Index for Ozone	92	96	89
EJ Index for NATA* Diesel PM	95	98	95
EJ Index for NATA* Air Toxics Cancer Risk	94	97	90
EJ Index for NATA* Respiratory Hazard Index	94	98	90
EJ Index for Traffic Proximity and Volume	97	97	93
EJ Index for Lead Paint Indicator	95	98	97
EJ Index for Superfund Proximity	82	88	79
EJ Index for RMP Proximity	92	96	95
EJ Index for Hazardous Waste Proximity	97	99	96
EJ Index for Wastewater Discharge Indicator	N/A	81	74



This report shows the values for environmental and demographic indicators and EJSCREEN indexes. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports.



EJSCREEN Report (Version 2019)



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Selected Variables	Value	State Avg.	%ile in State	EPA Region Avg.	%ile in EPA Region	USA Avg.	%ile in USA
Environmental Indicators							
Particulate Matter (PM 2.5 in $\mu\text{g}/\text{m}^3$)	9.94	9.25	90	8.63	97	8.3	88
Ozone (ppb)	45	44.8	49	43.4	66	43	64
NATA* Diesel PM ($\mu\text{g}/\text{m}^3$)	1.08	0.669	90	0.446	95-100th	0.479	90-95th
NATA* Cancer Risk (lifetime risk per million)	41	33	87	26	95-100th	32	80-90th
NATA* Respiratory Hazard Index	0.56	0.42	90	0.34	95-100th	0.44	80-90th
Traffic Proximity and Volume (daily traffic count/distance to road)	1500	630	92	530	92	750	87
Lead Paint Indicator (% Pre-1960 Housing)	0.84	0.41	89	0.38	90	0.28	94
Superfund Proximity (site count/km distance)	0.038	0.095	32	0.13	30	0.13	33
RMP Proximity (facility count/km distance)	2	1.2	83	0.82	89	0.74	91
Hazardous Waste Proximity (facility count/km distance)	8	2	95	1.5	97	4	94
Wastewater Discharge Indicator (toxicity-weighted concentration/m distance)	0	1.7	N/A	0.82	28	14	37
Demographic Indicators							
Demographic Index	82%	34%	96	28%	97	36%	96
Minority Population	97%	38%	93	25%	97	39%	95
Low Income Population	67%	30%	93	31%	92	33%	92
Linguistically Isolated Population	4%	5%	64	2%	79	4%	66
Population With Less Than High School Education	26%	11%	88	10%	92	13%	86
Population Under 5 years of age	10%	6%	85	6%	85	6%	84
Population over 64 years of age	11%	14%	38	15%	32	15%	37

* The National-Scale Air Toxics Assessment (NATA) is EPA's ongoing, comprehensive evaluation of air toxics in the United States. EPA developed the NATA to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that NATA provides broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the NATA analysis can be found at: <https://www.epa.gov/national-air-toxics-assessment>.

For additional information, see: www.epa.gov/environmentaljustice

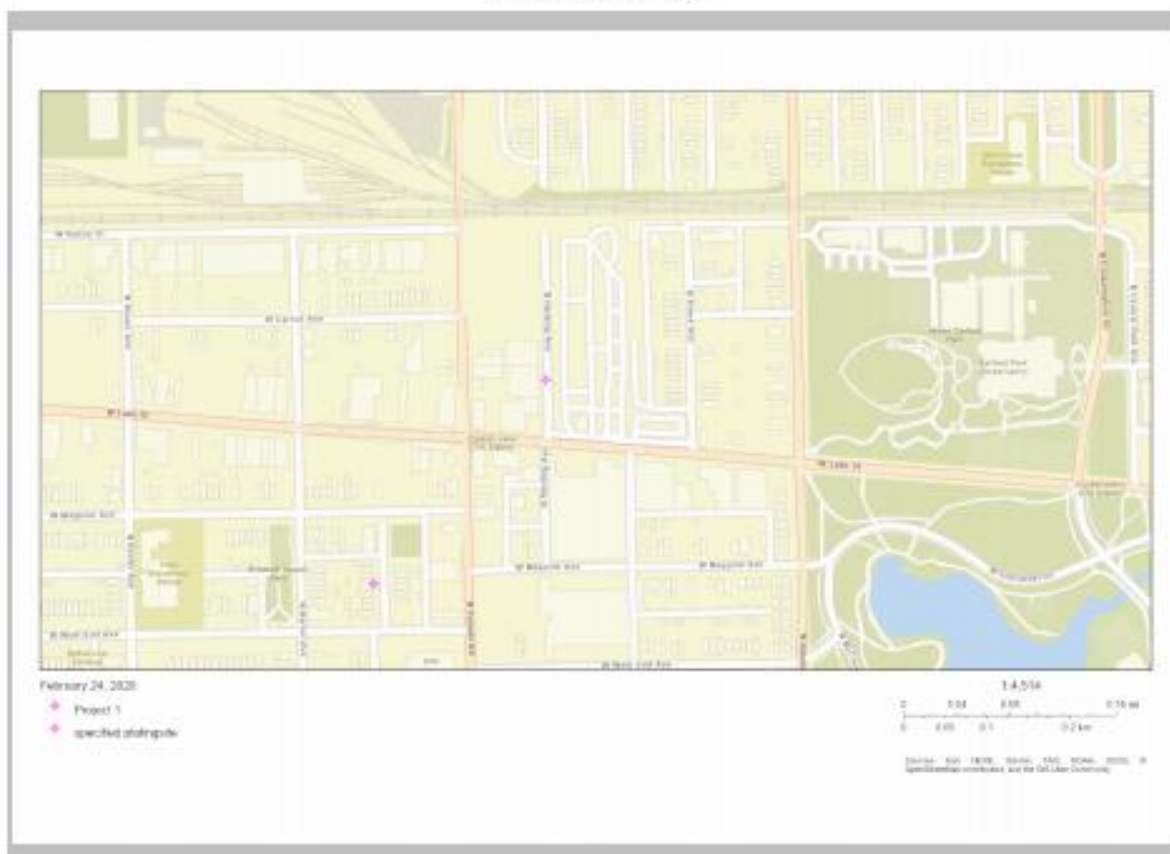


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Sites reporting to EPA	
Superfund NPL	0
Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)	2

ATTACHMENT II

U.S. ENVIRONMENTAL PROTECTION AGENCY

REMOVAL ACTION

ADMINISTRATIVE RECORD

FOR THE

SPECIFIED PLATING SITE

CHICAGO, COOK COUNTY, ILLINOIS

ORIGINAL

March 2020

<u>NO.</u>	<u>SEMS ID</u>	<u>DATE</u>	<u>AUTHOR</u>	<u>RECIPIENT</u>	<u>TITLE/DESCRIPTION</u>	<u>PAGES</u>
1		6/1/99	ATSDR	Public	Tox FAQs Fact Sheet - Sulfuric Acid - CAS #77664- 93-9	2
2		4/1/02	ATSDR	Public	Tox FAQs Fact Sheet - Sodium Hydroxide - CAS #1310-73-2	2
3		05/2019	ATSDR	Public	Tox FAQs Fact Sheet - Lead	2
4		9/1/08	ATSDR	Public	Tox FAQs Fact Sheet - Chromium - CAS #7440-47- 3	2
5			ATSDR	Public	Tox FAQs Fact Sheet - Cyanide	2
6		11/18/19	D. Graham City of Chicago Public Health	Ribordy, M., U.S. EPA	EPA Removal Request	2
7		02/26/20	TetraTech	B. Benning U.S. EPA	Site Assessment	35
8	-	-	B. Benning., U.S. EPA	Ballotti, D., U.S. EPA	Request for a Time-Critical Removal Action at the Specified Plating Site (<i>PENDING</i>)	-

9	06/26/19	Chicago F.D.	B. Benning U.S. EPA	Fire Code Violations	4
10	07/15/19	Chicago F.D.	B. Benning	Corrective Actions	2
11	11/29/18	Chicago Dept. of Buildings	B. Benning	Building Code Violations	6

ATTACHMENT III

ATTACHMENT III

DETAILED CLEANUP CONTRACTOR ESTIMATE

HAS BEEN REDACTED – ONE PAGE

NOT RELEVANT TO SELECTION

OF REMOVAL ACTION

ATTACHMENT IV

INDEPENDENT GOVERNMENT COST ESTIMATE

HAS BEEN REDACTED – THREE PAGES

NOT RELEVANT TO SELECTION

OF REMOVAL ACTION