

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION IX  
75 Hawthorne Street  
San Francisco, CA 94105

OCT 15 2014

**MEMORANDUM**

**SUBJECT:** Request for a Time-Critical Removal Action at Highland Plating Company, Inc., Hollywood, Los Angeles Co., CA

**FROM:** Robert Wise, On-Scene Coordinator  
Emergency Response Section (SFD-9-2)

**TO:** Kathleen Salyer, Assistant Director  
Superfund Division (SFD-9)

**THROUGH:** Harry Allen, Chief *HA*  
Emergency Response Section (SFD-9-2)

**I. PURPOSE**

The purpose of this memorandum is to obtain approval to spend up to \$ 1,516,200 in direct extramural costs to mitigate threats to human health and the environment posed by uncontrolled hazardous substances (cyanide, chromium, copper, zinc, and acidic and caustic liquids, sludge's and solids) in bulk and non-bulk containers associated with the defunct and fire ravaged metal plating facility known as the Highland Plating Company, Inc. ("Highland") Superfund Removal Site (the "Site").

The proposed removal of hazardous substances would be taken pursuant to Section 104(a)(1) of the Comprehensive Environmental Response, Compensation and Liability Act (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.

**II. SITE CONDITIONS AND BACKGROUND**

Site Status: Non-NPL  
Category of Removal: Time-Critical  
CERCLIS ID: CAN000900173  
SITE ID: A963

**A. Site Description**

## **1. Physical location**

The Site is located at 1001 N. Orange Drive, Hollywood, Los Angeles County, California (Latitude: 34.0891180; Longitude: -118.3419480). The Site consists of three Assessor's Parcel Numbers (APN 5532030011-532030013), on which two buildings that cover approximately 33,000 square feet are situated. The facility includes a western building, bordered by Sycamore Street and Romaine Drive, an eastern building bordered by Orange Street and Romaine Drive and a covered breezeway located between the two (See Attachment A: Figure 1: Site Location Map and Figure 2: Former Operational Layout).

The Site is located in the "Hollywood Media District," which is a mixed commercial/residential district that includes movie production studios, retail stores, restaurants, commercial buildings and residential. Commercial buildings, including movie studios and retail establishments, are located to the north, south and east of the Site. A concrete plant and a business park are located to the west. Approximately one block to the south is a residential neighborhood.

## **2. Site characteristics**

Highland has been operating as an electroplating and anodizing shop for approximately 50 years. It conducted chrome (polished, black, satin, and matte) electroless nickel (beryllium), black nickel, nickel, copper, brass, gold plating and anodizing. Prior to the fire, Highland had ceased plating activities and the plating lines were in the process of being dismantled.

On July 13, 2014, a fire broke out in the eastern building, damaging the plating lines and the building structure. The cause of the fire is unknown. The eastern building includes the main plating and anodizing lines, the administrative offices and a second floor used to store the rectifiers and other electrical equipment necessary to operate the plating lines. The plating area consisted of an Anodizing Department (Section #1), a Nickel /Chrome Department (Section #2) and a Nickel/Chrome/Brass/Gold Department (Section #3). The eastern building is constructed with exterior masonry (bricks and mortar) walls and a wood roof, set on top of a steel superstructure. The roof of the eastern building is completely destroyed and has fully collapsed into Section #2 and partially collapsed in Sections #1 and #3.

The plating lines in Sections #1, #2, and #3 are situated above concrete secondary containment sumps. Drainage from the sumps are routed from the eastern building, through the breezeway, and to the treatment system (located in the western building) via a series of trenches. The treatment system has been partially dismantled and is not operational. The plating vats sustained heavy damage during the fire and are likely to be structurally compromised. Section #2 is not currently accessible for

inspection because the second floor and the roof have collapsed on to it. Catwalks and infrastructure surrounding the plating lines are also damaged and unsafe to walk on, limiting access around the plating vats for inspection. The secondary containment for the plating lines is currently filled with a mixture of plating solution, contaminated fire suppression water, and debris. Several of the vats and containers containing plating chemicals melted during the fire, released their contents, and collapsing into the secondary containment sumps. The floor of the eastern building shows evidence of heavy chrome contamination, including integration into the floor concrete substrate. Contamination also appears to be leaching from the floor into bricks at the interface between the floor and walls. Bricks and mortar along this wall are visibly contaminated with chromium and have been observed to be friable and structurally unsound where the leaching occurred.

On the perimeter of Section #2, there is also a cyanide and cylinder storage cabinet located under the stairwell to the second floor. All of the drums of cyanide and cylinders have sustained heavy fire damage. It is unknown at this time if the cylinders can be transported off-site for disposal. Information necessary to make this determination will require further assessment by a cylinder expert.

The breezeway between the west and east buildings contains raw chemical product containers, totes of hazardous waste, air handling equipment, polishing equipment, electrical equipment, and a work shop. There was originally a chemical stripping line located in the breezeway, however, it was dismantled by the Highland employees after the fire occurred. The concrete berm that surrounded the stripping line shows evidence of heavy chrome contamination. The roof above the breezeway is heavily damaged from the fire and is unstable. Some chemical containers stored in this area were impinged by the fire and are no longer reliable containment vessels.

The western building sustained minimal damage during the fire. The building consists of a two story structure constructed of cinderblock and brick walls with a trellised wood roof. This building includes office space, laboratory space, product inspection areas, a polishing shop, a painting department, the Wastewater Treatment Department (WTD), and the gold plating department. The gold plating department, including the chemicals and equipment, has been dismantled for transfer to another plating shop. Waste and product plating solutions are being stored in the western building, awaiting disposal or transfer to another plating facility. There is also a large quantity of plating waste located in the WTD, which consists of a three-story tiered treatment system with vats, tanks, a sludge drier and a filter press. All of the units in the WTD are set inside a concrete curbed secondary containment. The tank and vat units are full of untreated plating wastewaters and contain an unknown quantity of plating solids. There are also waste plating solids in the secondary containment, sludge dryer and filter press. Plating solids that have been removed from the WTD are currently stored in super sacks and tri-wall boxes and staged in and around the WTD.

The polishing room contains a large quantity of waste polishing-dust and polishing belts. Typically waste-streams like this contain high concentrations of the metals being plated at the facility. The room is completely contaminated with polishing dust and is also being used to store plating solutions containing sulfuric acid. There are two drums in the polishing room that are overflowing with polishing dust. The drums are marked with hazardous waste marks containing D007 (chromium) waste codes and a December 2013 accumulation start date. The Painting Department contains numerous flammable cabinets storing solvent based paints.

The City of Los Angeles Building and Safety Department (LABSD) issued a "Red Tag" on the eastern building on the morning of July 14, 2014, because on the unsafe structural conditions of the fire damaged building. On September 10, 2014, at the request of the U.S. Environmental Protection Agency (EPA), LABSD downgraded the Red Tag to a "Yellow Tag" to allow for cleanup operations. A structural assessment performed by an architectural engineer hired by Highland, and interviewed by On-Scene Coordinator (OSC) R. Wise, indicates that the eastern building is damaged beyond repair.

### **3. Removal site evaluation**

On the morning of July 13, 2014, a fire broke out in the eastern building at the Site. OSC Wise and the Superfund Technical Assessment and Response Team integrated into the Unified Command, which requested EPA to initiate an air surveillance program to evaluate hazards to first responders and the community. EPA set up a comprehensive air surveillance system that included the collection of real-time data for total volatile organic compounds, carbon monoxide and hydrogen cyanide. EPA also collected air samples for the analysis of acid gases, heavy metals, and hydrogen cyanide. Monitoring data indicated low levels of carbon monoxide only next to the burning building. The sampling data documented no target contaminants present in the samples. The EPA team also worked with the Los Angeles County Fire Department Health Hazardous Materials Emergency Operations Section (LACoFD) and the City of Los Angeles Watershed Protection (LAWSP) to monitor off-Site discharges of fire suppression water contaminated with plating solutions. During fire suppression operations, water contaminated with plating solutions was actively leaching from several locations on the southern wall of the eastern building to Romaine Street.

Highland retained Environmental Recovery Services (Enviroserv) and Patriot Environmental Services (PES) to manage the fire suppression runoff, and clean any areas impacted by it. On July 14, 2014, these contractors conducted sampling of the roll-off bins containing soil contaminated with fire suppression water runoff, and the tanks containing contaminated fire suppression water runoff. Levels of contamination found in the soil did not exceed "hazardous waste" levels as defined pursuant to the

Resource Conservation and Recovery Act (RCRA). The samples collected from liquid in the tanks all exhibited concentrations of chromium exceeding hazardous waste levels. A summary of the profile data for this waste is located in Attachment B: Table 1 Enviroserv Fire Suppression Waste Data.

On August 20, 2014, EPA conducted an inventory of the west building (Attachment C: West Building Chemical Container Inventory). A total of 201 containers, excluding plating vats, were identified on-site during this activity. Many of these containers contained D001 Corrosive RCRA wastes. Inventory activities documented eighteen 250-275 gallon totes of marked RCRA hazardous waste. Many of these totes had accumulation starts dates in excess of 90 days. A limited number of these containers still contain useable product, and are destined to be used at a new plating shop being opened by the former Highland facility manager. Additionally, the volume of material still remaining in the waste water treatment system is included in this inventory. There is approximately 19,000 gallons of waste in the waste water treatment system, of which, 1,250 gallons has been identified as cyanide waste awaiting treatment.

On August 22, 2014, an environmental consultant for the land owner of the Orange Square business park (the area of businesses located directly north of the Site) conducted a Phase II environmental site assessment of soils potentially impacted by fire suppression runoff. Samples collected from locations where fire suppression water exited the building and pooled confirmed the presence of chromium, copper, lead, zinc, mercury and nickel above California hazardous waste determining concentrations, and above the EPA Region 9 Regional Screening levels. A summary of this data is provided in Attachment B: Table 2: Orange Park Soil Data Summary Maximum Concentrations. [Note: Pre-fire analytical data was not available to compare with the post fire results.]

On September 10, 2014, Enviroserv sampled the plating vats and secondary containment in Sections #1 and #3. Section #2 was not sampled because of safety concerns. The samples were submitted to various treatment, storage and disposal facilities (TSDFs) for acceptance and profile purposes. Data from these samples has not been released by the TSDFs to the EPA and is not available to include with this memorandum. During these assessment activities, Enviroserv conducted field pH measurements of materials contained in all vats and secondary containment areas that could be safely accessed. The field data indicate that many of the vats still contained RCRA characteristic corrosive wastes. An inventory of the vats and the corresponding pH data are located in Attachment D: Enviroserv Vat Inventory. The information gathered during this assessment indicates that there are approximately 74,000 gallons of plating solution and contaminated fire suppression water waste in the vats and secondary containment sumps located in Sections #1 and #3. Section #2 secondary containment could not be accessed due to structural safety issues during these assessment activities.

During the September 10, 2014 assessment, both the EPA team and Enviroserv observed a large amount of small particulate suspended in the air and on the floor of the facility, which they suspected to be asbestos containing materials (ACM). On September 12, 2014, EPA conducted sampling of 10 different types of debris, construction, and bulk materials in the eastern building for ACM; however the data indicate that ACM is not present. These sampling results corroborate findings presented in a previously-conducted asbestos survey. The survey was performed by a private company at the request of the prospective buyer of the property and was provided to the EPA by the prospective buyer after EPA's sampling activities occurred.

On October 1, 2014, EPA conducted a sampling assessment of the fire damaged structural materials in the eastern building. The data for this is pending.

The removal assessment is ongoing at this time. Section #2 cannot be accessed due to structural stability issues associated with the fire. This section will be fully assessed when it is safe to do so. The situation of sub-slab contamination is also unknown and will be assessed when the building and slab have been removed.

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

During the July 13, 2014 fire suppression operations over 1,500,000 gallons of water was placed on the fire by the LACoFD. Water from these activities comingled with plating solutions in Sections #1, #2, and #3 and then exited the building into the street, storm drain and sewer. Analytical data of samples collected from fire suppression water documented hazardous waste levels of chromium, copper, nickel and zinc. A great deal of that contaminated water remains in the eastern building within secondary containment. There is also a large quantity of RCRA characteristic waste and Listed Waste plating solutions in the eastern building.

The eastern building is structurally unstable. Plating lines in Sections #1 and #3 contain approximately 75,000 gallons of fire impacted plating solutions. The secondary containment surrounding these plating lines is full of fire suppression water, plating solutions and debris, rendering them useless for capturing additional material leaking from the plating vats. Due to the drainage structure of the plating shop and the lack of capacity from secondary containment, a release from one of the vats due to catastrophic failure or a rain event has the potential to cause the secondary containment to overflow, resulting in a release to the street and into the storm drain. The drainage system for the plating shop is normally routed to the water treatment system, however, the system has been partially dismantled and is not currently operational. Therefore the drainage has no place to go. A rain event in the area could cause the facility to flood, which may result in material leaching through the brick walls (observed during the fire) resulting in the release of a CERCLA hazardous substance onto neighboring properties and the street.

Analytical data indicates the presence of RCRA listed wastes "F007" and "F008" (associated with electroplating operations where cyanides are used in the process) and wastes exhibiting the RCRA hazardous waste characteristic of corrosivity pursuant 40 C.F.R. § 261.22. Corrosive wastes are both acidic (pH<2) and caustic (pH>12.5). Select samples also exhibited the California Total Threshold Limit Concentration hazardous waste characteristic of toxicity for chromium, copper, nickel and zinc. RCRA listed and characteristic wastes and chromium, copper, nickel and zinc are hazardous substances as defined by Section 101(14) of CERCLA, 42 U.S.C. § 9601(14). Other hazardous substances or pollutants and contaminants not discovered to date or not specifically identified herein may exist at the Site. These substances may also pose a threat to human health and the environment.

The potential for flooding, vandalism, and continuing deterioration of the structures and containers at the defunct Site may result in the combustion, physical exposure or commingling of incompatible hazardous substances resulting in harm to the public health or welfare or the environment. Considering the proximity of nearby businesses and public highways, the Site represents a significant threat of release affecting nearby populations.

#### **5. National Priorities List ("NPL") status**

The Site is not currently on or proposed for inclusion on the NPL.

#### **B. Other Actions to Date**

On July 13 and 14, 2014, contractors hired by Highland responded to the fire to provide hazmat and environmental cleanup support to the Unified Command. In order to minimize the amount of contaminated fire suppression water that entered the storm drain system, these contractors installed sand berms to collect and contain fire suppression water. This contaminated fire suppression water was then pumped into temporary storage tanks and stored on Orange Drive and Romaine Street. The contractor also pumped vats containing copper and brass cyanide plating solutions from Section #1 into 250 gallon totes, decontaminated the storm drains, sidewalks and streets contaminated by fire suppression runoff and containerized berm materials into roll-off-bins. This was conducted under oversight by the LAWSP. The fire suppression water (approximately 34,000 gallons) and the berm material (eight 20 yd<sup>3</sup> roll-off-bins) were stored on the street for approximately six weeks prior to off-site disposal. These materials were disposed of on August 25, 2014. The removal was funded by Farmers Insurance via a third party liability policy held by Highland. Farmers Insurance is currently investigating whether either of two policies held by Highland may be appropriate to fund further cleanup.

#### **C. State and Local Authorities' Roles**

## **1. State and local actions to date**

On July 14, 2014, the LACoFD conducted an X-Ray Fluorescence survey of the parking lot at 1023 N. Orange Drive (directly adjacent and north of the Site) to determine if contaminated fire suppression water had impacted the property.

## **2. Potential for Continued State/Local Response**

Neither State nor local agencies appear to have the resources to undertake the required cleanup action at this time. The use of State Hazardous Substances Cleanup Account is limited to the subsurface remediation on/around the Site. DTSC asserts that the scope of the required cleanup exceeds the funding availability of the State Emergency Reserve Account.

Despite the apparent limitation on their resources, representatives from State and local response organizations may be requested to assist and coordinate with the EPA in various tasks including data review, planning and community relations. Assistance from these agencies likely will be limited to technical support and services rather than direct financial contribution to the response.

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

Conditions at the Site represent a release, and potential threat of release, of a CERCLA hazardous substance threatening to public health, or welfare, or the environment based on the factors set forth in the National Oil and Hazardous Substances Pollution Contingency Plan ("NCP"), 40 CFR § 300.415(b)(2). These factors include:

### **1. Actual or potential exposure to nearby populations, animals or the food chain from hazardous substances or pollutants or contaminants**

There is an actual or potential exposure to nearby populations from hazardous substances at the Site, including the now unmanaged and unsecured heavy metal solutions, sludge and debris containing cyanide, chromium and zinc. There are also large quantities of acidic solutions and caustic cyanide laden plating sludges in open and degraded vats. The proximity of compromised containers containing incompatible acidic solutions and cyanide bearing wastes in shared secondary containment poses a significant threat of mixing, and the subsequent liberation of toxic hydrogen-cyanide gas.

Any person entering the former plating and processing areas may be exposed to hazardous substances by direct contact with open containers, leaking equipment and



contaminated building material. Nearby populations may be exposed to hazardous substances in the event deteriorated vats and tanks and other containers leak causing incompatible chemicals to mix and generate toxic gases that may be inhaled or flammable gases that may ignite. Direct contact, inhalation or ingestion of hazardous substances at the Site pose an acute health threat to these individuals. Threats from some specific materials at the Site are discussed below.

Cyanide is readily absorbed through the skin, mucous membrane, and by inhalation. Symptoms of cyanide poisoning include anxiety, confusion, vertigo, nausea, convulsions, paralysis, coma, cardiac arrhythmia, and transient respiratory stimulation followed by respiratory failure or death.

Chromium is an eco-toxic heavy metal that is an inhalation, ingestion, and dermal exposure risk. Chromium bioaccumulates and targets the liver, kidneys, reproductive organs, circulatory system, and gastrointestinal system. Acute exposure to chromium can cause harmful effects to the gastrointestinal system. Chronic exposure can cause harmful effects to the skin, lungs, mucous membranes, and possibly cancer.

Zinc is a toxic metal. It is regulated in California as a hazardous waste. Inhalation of metal zinc fume can result in the exhibiting of throat dryness, cough, aches, chills, fever, nausea and vomiting. Exposure can also cause injury to mucous membranes and skin.

Hydrochloric acid is a strong corrosive that can burn the skin, eyes and mucous membranes on dermal contact. It also is moderately irritating to the respiratory tract when inhaled. Hydrochloric acid produces toxic and corrosive fumes when exposed to water.

Sodium hydroxide is a strong alkaline material (pH levels greater than 7.0). Sodium hydroxide is corrosive and exhibits an irritating effect on all body tissue, having the potential to cause serious burns and deep ulcerations. Inhalation can cause damage to the upper respiratory tissue and lung tissue, with effects ranging from mucous membrane irritation to severe pneumonitis.

Other hazardous substances or pollutants and contaminants not discovered to date or not specifically identified herein may exist at the Site. These substances may also pose a threat to human health and the environment.

**2. Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release.**

EPA estimates over 75,000 gallons of liquid wastes in Sections #1, #2, and #3. These volumes include incompatible acidic and cyanide bearing vat wastes located in a

shared secondary containment structure. The wastewater treatment system contains thousands of gallons of solutions, sediments and sludge's which are not yet fully characterized. Plating residues and sludge's were found spilled outside of their containers. There is also an undetermined volume of contaminated debris, sludge's, and building material associated with secondary containment that has not yet been fully evaluated.

**3. High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface that may migrate**

Heavy metal soil contamination has been identified in the Orange Square business park in the exposed soil impacted by contaminated fire suppression water. Data collected by the consultant to the land owner documented elevated concentrations of chrome, copper, lead, mercury, nickel and zinc at and near the surface. The land owner is also reporting that all of the trees in areas impacted by fire suppression water are dying.

Heavy leaching of chromic acid through the concrete and masonry has been documented inside the southwestern corner of the eastern building. Additionally, during the fire, contaminated fire suppression water was observed to be leaching between the bottom of the walls and foundation of the building, through the walls and from underneath the sidewalks along Sycamore Street. Further evaluation of soil contamination will be conducted upon completion of all aboveground removal activities.

**4. Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released**

The plating lines, wastewater treatment system and other waste containment areas are exposed to rainfall either directly or through large holes in the roof. Further, weathering of these areas and the bulk and non-bulk waste containers by wind, sun and rain can cause the deterioration of remaining materials and will result in an ongoing release of heavy metals and cyanide contaminated materials.

**5. Threat of fire or explosion**

The facility's electrical system was severely damaged during the fire and it no longer has a heat detection fire alarm system or fire sprinklers. Other unknown conditions and vandalism could also affect fire safety or result in a release if the chemicals mixed and reacted. The mixing of strongly acidic and caustic materials could generate sufficient heat to ignite surrounding combustible materials. A large fire at this facility could further expose nearby populations living downwind to toxic smoke and particulates. The use of large volumes of firefighting water would likely produce

contaminated runoff that could flow into the sewers and storm drain system causing a discharge of pollutants and contaminants into surface waters.

**6. Availability of other appropriate federal or state response mechanisms to respond to the release**

DTSC has offered to fund Site security using the California State Emergency Reserve Account, if EPA conducts a removal action. Other actions exceed the financial capability of the California State Emergency Reserve Account. The current use of State Orphan Funds is available only for subsurface remediation issues. Assistance from other agencies likely will be limited to technical support and services rather than direct financial contribution to the response.

**7. Other situations or factors that may pose threats to public health or welfare of the United States or the environment**

The eastern building has been yellow/red-tagged by the City of Los Angeles Department of Building and Safety as an unsafe building (the yellow tag allows for cleanup operations only). The roof has collapsed onto the plating lines, significantly compromising the integrity of the lines. Those plating lines include anodizing tanks with sulfuric and chromic acids, dye tanks, alkaline solutions, cyanide solutions and heavy metals. Further uncontrolled collapse of the structure could result in the release of hazardous substances to the environment or uncontrolled chemical reactions releasing deadly hydrogen cyanide gases.

**IV. ENDANGERMENT DETERMINATION**

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

**V. PROPOSED ACTIONS AND ESTIMATED COSTS**

**A. Proposed Actions**

**1. Proposed action description**

EPA proposes to inventory, characterize, segregate, bulk, re-containerize, and remove for disposal all abandoned hazardous substances and contaminated materials left in bulk and non-bulk containers and secondary containment structures at the Site. All wastes will be characterized using EPA-approved methodologies and delivered to commercial hazardous waste management facilities that are compliant with EPA's

CERCLA Off-Site Disposal Rule. EPA will not investigate or respond to deep soil or groundwater contamination at the Site.

All activities will be performed in conformance with prescribed health and safety procedures. Sampling and analysis activities will conform to EPA approved methodologies and mandatory specifications for quality assurance and quality control.

## **2. Contribution to remedial performance**

EPA does not anticipate a long term remedial action at this Site. This removal action should remove all immediate threats posed by uncontrolled hazardous substances at the Site.

The long-term cleanup plan for the Site: Final reporting of this removal action will be provided to DTSC, LACoFD and LAWSP for consideration in any further activities under state or county programs.

### Threats that will require attention prior to the start of a long-term cleanup:

There is no EPA long-term cleanup planned for this Site. The immediate threats that have been identified in this memorandum will be addressed by the proposed removal action.

### The extent to which the removal will ensure that threats are adequately abated:

The removal of abandoned and above ground hazardous substances is expected to abate the immediate threats from the Site.

### Consistency with the long-term remedy:

As stated above, removal activities undertaken in this action will not be inconsistent with any future activities at the Site, and will be considered and incorporated into any state and county facility closure proceedings.

### Post Removal Site Control

EPA will evaluate, with DTSC, LACoFD and LAWSP, the need for post-removal Site control, consistent with the provisions of Section 300.415(k) of the NCP. The elimination of all threats identified for this removal action however, is expected to eliminate the need for post-removal Site control.

## **3. Applicable or relevant and appropriate requirements (“ARARs”)**

Section 300.415(j) of the NCP provides that removal actions must attain ARARs to the extent practicable, considering the exigencies of the situation.

Section 300.5 of the NCP defines applicable requirements as cleanup standards, standards of control, and other substantive environmental protection requirements, criteria or limitations promulgated under federal environmental or state environmental or facility siting laws that specifically address a hazardous substance, pollutant, contaminant, remedial action, location or other circumstances at a CERCLA site.

Section 300.5 of the NCP defines relevant and appropriate requirements as cleanup standards, standards of control and other substantive requirements, criteria, or limitations promulgated under federal environmental or state environmental or facility siting laws that, while not "applicable" to a hazardous substance, pollutant, or contaminant, remedial action, location, or other circumstances at a CERCLA site, address problems or situations sufficiently similar to those encountered at the CERCLA site and are well-suited to the particular Site.

Because CERCLA on-site response actions do not require permitting, only substantive requirements are considered as possible ARARs. Administrative requirements such as approval of, or consultation with administrative bodies, issuance of permits, documentation, reporting, record keeping and enforcement are not ARARs for the CERCLA response actions confined to the Site.

The following ARARs have been identified for the proposed response action. All can be attained.

Federal ARARs: Potential federal ARARs are the RCRA Land Disposal Restrictions, 40 C.F.R. § 268.40 Subpart D; the CERCLA Off-Site Disposal Restrictions, and the U.S. Department of Transportation of Hazardous Materials Regulations, 49 C.F.R. Part 171, 172 and 173.

State ARARs: Potential state ARARs are Characteristics of Hazardous Waste implemented through the California Health and Safety Code, Title 22, § 66261.20, § 66261.21, § 66261.22, § 66261.23, § 66261.24.

#### **4. Project schedule**

The removal action is expected to begin in late October 2014 and is expected to take approximately four weeks to complete.

#### **B. Estimated Costs**

##### Regional Removal Allowance Costs

Cleanup Contractor	\$1,060,000
<u>Other Extramural Costs</u>	
START Contractor	\$160,000
Pacific Strike Team	\$43,500
Extramural Subtotal	\$1,263,500
Extramural Contingency (20%)	<u>\$252,700</u>
TOTAL, Removal Action Project Ceiling	\$ 1,516,200

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

Given the Site conditions, the nature of the hazardous substances documented on-Site and the potential exposure pathways to nearby populations described in Sections III and IV above, actual or threatened releases of hazardous substances from the Site, if not addressed by implementing the response actions selected in this memorandum, present an imminent and substantial endangerment to public health, or welfare, or the environment.

## **VII. OUTSTANDING POLICY ISSUES**

There are no outstanding policy issues with the Site identified at this time.

## **VIII. ENFORCEMENT**

Please see the attached Confidential Enforcement Addendum for a discussion regarding potential enforcement. In addition to the extramural costs estimated for the proposed action, a cost recovery enforcement action also may recover the following intramural costs:

### Intramural Costs<sup>1</sup>

<sup>1</sup> 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

U.S. EPA Direct Costs	\$ 30,000
U.S. EPA Indirect Costs (45.96% of \$1,516,200+ \$ 30,000)	\$ <u>710,634</u>
TOTAL Intramural Costs	\$ 740,634

The total EPA extramural and intramural costs for this removal action, based on full-cost accounting practices that will be eligible for cost recovery, are estimated to be \$2,256,834.

## IX. RECOMMENDATION

This decision document represents the selected removal action for the Highland Plating and Anodizing, Inc. Site at 1001 N. Orange Drive, Los Angeles, California, as developed in accordance with CERCLA and not inconsistent with the NCP. This decision is based on the Administrative Record for the Site.

Because conditions at the Site meet the NCP criteria for a time-critical removal, I recommend that you concur on the determination of imminent and substantial endangerment and the removal action proposed in this memorandum. The total removal action project ceiling if approved will be \$1,516,200. You may indicate your decision by signing below.

Approve:  10/15/14  
Kathleen Salyer, Assistant Director Date  
Superfund Division

Enforcement Addendum

Index to the Administrative Record

include pre-judgment 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 costs from this estimate will affect the United States' right to cost recovery

Appendices

Attachment A: Figures

Attachment B: Tables

Attachment C: West Building Container Inventory

Attachment D: Enviroserv Vat Inventory

cc: Sherry Fielding, USEPA, OEM, HQ

Site File

Craig Whitenack, EPA CI

Andrew Helmlinger, ORC-3

Celeste Temple, SFD-9-4

Will Duncan, SFD-9-2



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- Plant Engineering charts and Diagram, Highland Plating Company, June 1, 2011
- Brian Noteware Letter to Georgeann Nicol and Stella Havkin, August 31, 2014.
- Environmental Recovery Services, Waste Inventory, July 10, 2014.
- Manifest No. 013366538, Generator: Highland Plating
- Environmental Recovery Services , Highland Plating Master Inventory Matrix, September 10, 2014
- Evoqua Water Technologies, LLC Waste Profile Sheets
- EPA Notice of Federal Response Action issued to Highland Plating, July 17, 2014
- EPA Notice of Federal Response Action Revision issued to Highland Plating, July 24, 2014
- EPA Letter to Farmers Insurance, Timelines for cleanup of Highland Plating, August 15, 2014
- EPA Letter Farmers Insurance and Max and Drusilla Faeth, Revisions of Timelines for Cleanup of Highland Plating and Cleanup Strategy Meeting, September 16, 2014
- Letter to Max and Drusilla Faeth, Imminent Threat of Off-Site Release from Highland Plating and Failure to Comply with August 16, 2014 Timelines, September 29, 2014
- Frey Consulting, Soil Investigation, Orange Square, 1009-1023 N. Orange Drive, Los Angeles , CA; September 23, 2014.

## Attachment A: Figures



**SAMPLE LOCATION MAP**  
**Highland Plating Company Site**  
Emergency Response  
West Hollywood, California



**FIGURE 1**



N Sycamore Ave

N Orange Dr

Romaine St



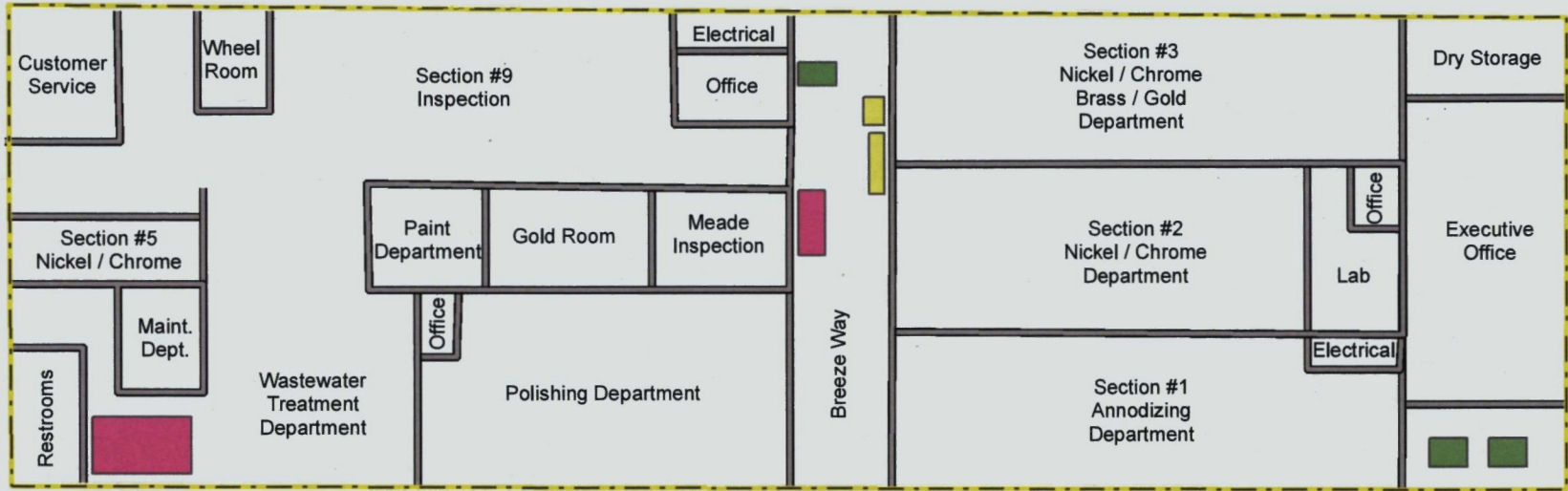
0 25 50 100 150 200 Feet

-  Fire Sampling Location
-  Historical Release

N Sycamore Ave









Parking Lot



Romaine St

**Legend**

-  Fire Hydrants
  -  Chemical Storage Areas
  -  Site Building
  -  Stripping Tanks
  -  Building Interior Walls
  -  Electrical Transformers
- 0 35 Feet
- N



Prepared For:  
**U.S. EPA REGION 9**

Contract No.: EP-S5-13-02  
TDD: 1302-T2-R9-14-07-0003  
DCN: (TBD)



Prepared By:  
**WESTON SOLUTIONS**

3777 Long Beach Blvd  
Annex Building  
Long Beach, California 90807

**Figure 2**  
Former Operational Layout  
Highland Plating Company ER Site  
Los Angeles, Los Angeles County,  
California

**Attachment B: Tables**

Table 1: Enviroserv Fire Suppression Waste Data Summary						
Sample Number	Cyanide	Copper	Zinc	Chrome	Chrome VI	Nickel
Cyanide Solutions	15,600 ppm	10,900 ppm				
4218		195 ppm		1165 ppm	384 ppm	272 ppm
4057				29 ppm		
4209				598 ppm	240 ppm	
4436		146 ppm	85 ppm	1382 ppm	722 ppm	234 ppm

Table 2: Orange Park Soil Data Summary Maximum Concentrations (mg/kg)							
Action Levels	Arsenic	Chromium	Copper	Lead	Mercury	Nickel	Zinc
	9.97	2,350	10,900	1,010	1,050	2,910	2,120
TTLC <sup>1</sup>	500	2,500	2,500	1,000	20	2,000	5,000
RSL <sup>2</sup>							
1. California Total Threshold Limit Concentration							
2. EPA Region 9 Regional Screening Level-Industrial Soil							

**Attachment C: West Building Container Inventory**

ID	Type	Total Volume	% Full	Solid / Liquid	Notes:	Volume	Units
A050	bag	75lbs	100	g	sodium nitrate prills (3x bags)	75	lbs
A051	bag	75lbs	100	g	sodium metabisulfate	75	lbs
C020	bag	25kg	100	s	sodium metabisulfate	25	kg
C021	bag	25kg	100	s	ferrous sulfate	25	kg
C022	bag	25kg	100	s	ferrous sulfate	25	kg
C023	bag	25kg	100	s	sodium metabisulfate	25	kg
C031	bag	25kg	100	s	sodium metabisulfate	25	kg
C042	cylinder	k	unk	g	oxygen	unk	
C043	cylinder	k	unk	g	acetylene	unk	
C044	cylinder	k	unk	g	argon	unk	
E007	cylinder	unk	unk	g	water treatment	unk	
A014	drum	55	5	l	houghto-seal. Highland plating	2.75	gallons
A015	drum	55	60	l	sodium hypochlorite 12.5%	33	gallons
A019	drum	55	50	l	caustic soda 50%	27.5	gallons
A022	drum	55	0	na	Flammable label. No contents	0	gallons
A023	drum	55	0	na	caustic soda 50%	0	gallons
A025	drum	55	50	s	Plastic nickel round filter only. Clean 09-2013	27.5	gallons
A035	drum	55	100	unk	"good nickel Soln" 3/28/13	55	gallons
A036	drum	55	100	unk	"good nickel Soln" 3/28/13	55	gallons
A042	drum	165lbs	100	l	nitric acid 42 Be*	165	lbs
A048	drum	25	100	l	"silver strike"	25	gallons
A049	drum	55	100	l	Haz-Waste Label. 2/12/14. waste CN Soln. NOS.	55	gallons
A063	drum	35lbs	100	s	nickel carbonate hydroxide	35	lbs
A064	drum	15lbs	50	s	unknown	7.5	lbs
A065	drum	25	unk	s	oxidizing solid: Ebond C. Enthone	unk	gallons
A066	drum	25	unk	s	oxidizing solid: Ebond C. Enthone	unk	gallons
A067	drum	25	100	s	technical sodium chloride	25	gallons

ID	Type	Total Volume	% Full	Solid / Liquid	Notes:	Volume	Units
A073	drum	55	100	l	hydrochloric acid/water	55	gallons
B001	drum	25	100	l	unknown	25	gallons
B002	drum	25	100	s	excel buffclean-B	25	gallons
B003	drum	25	100	l	unknown	25	gallons
B004	drum	25	100	l	copper sulfide	25	gallons
B005	drum	25	100	l	copper sulfide	25	gallons
B006	drum	25	100	l	metaplate 2500 CD	25	gallons
C024	drum	55	90	l	no label. Milky white liquid	49.5	gallons
C035	drum	25	50	l	silver plate	12.5	gallons
D001	drum	65	100	s	abrasive buffing compound	65	gallons
D002	drum	65	100	s	g-15 coro-08	65	gallons
D003	drum	35	100	s	unknown	35	gallons
D004	drum	45	100	s	unknown	45	gallons
D008	drum	55	100	s	Haz-Waste Label. Polishing Compound. D007. 12/13/13	55	gallons
D008	drum	55	100	l	unknown	55	gallons
E006	drum	55	75	l	unknown	41.25	gallons
E009	drum	50	100	l	unknown	50	gallons
E021	drum	55	100	l	paint stripper	55	gallons
E022	drum	55	100	l	monoethanol amine	55	gallons
E027	drum	55	100	l	houghton metal finishing. Houghton-color-A-545. Sulfuric Acid	55	gallons
E028	drum	55	100	l	meta plate 2500 B	55	gallons
E029	drum	55	100	l	houghto-seal-a-620	55	gallons
E030	drum	55	100	l	ethylene glycol	55	gallons
E033	drum	55	10	l	meta plate 2500 B	5.5	gallons
E034	drum	55		l	ammonium hydroxide	0	gallons
E036	drum	55	100	l	sulfuric acid	55	gallons
E037	drum	55	100	l	hydrochloric acid	55	gallons
E038	drum	55	100	l	ethylene glycol	55	gallons
E039	drum	55	100	l	nitric acid	55	gallons
E040	drum	55	100	l	nitric acid	55	gallons
E041	drum	55	0	na	empty	0	gallons
E042	drum	55	0	na	empty	0	gallons
E043	drum	55	0	na	empty	0	gallons



ID	Type	Total Volume	% Full	Solid / Liquid	Notes:	Volume	Units
E044	drum	55	25	l	glacial acetic acid	13.75	gallons
E047	drum	55	unk	unk	houghto-color-a-599	unk	gallons
E048	drum	55		s	Haz-Waste Label. RQ HW Ni Crystal soln. 5/27/14	0	gallons
E049	drum	55		l	poly electro clean	0	gallons
E051	drum	55	50	l	caustic soda 50%	27.5	gallons
E052	drum	55	50	l	glycol ether HB	27.5	gallons
E053	drum	55	50	l	trivalent chrome	27.5	gallons
E056	drum	55			trash	0	gallons
E061	drum	55	10	l	acetone	5.5	gallons
B011	drum	15	50	l	unknown	7.5	gallons
C037	sc	5	50	l	paint/resin/cement (paint cans x 13)	2.5	gallons
A016	sc	5	100	l	ronatec 2500B	5	gallons
A017	sc	5	100	l	ronatec 2500B	5	gallons
A018	sc	5	100	l	ronatec 2500B	5	gallons
A024	sc	5	100	l	"En Plate Reducer" reducing concentrate for electroless copper	5	gallons
A030	sc	5	100	l	En-Plate CV406A	5	gallons
A031	sc	5	100	l	En-Plate CV406A	5	gallons
A032	sc	5	100	l	En-Plate CV406B	5	gallons
A033	sc	5	100	l	En-Plate CV406B	5	gallons
A034	sc	5	100	l	En-Plate 406C Improved	5	gallons
A037	sc	5	100	L	nickel sulfate liquid. Product code 2200362- 0005-4-000 ATOTECH, Inc.	5	gallons
A038	sc	5	100	L	nickel sulfate liquid. Product code 2200362- 0005-4-000 ATOTECH, Inc.	5	gallons
A039	sc	5	100	L	nickel sulfate liquid. Product code 2200362- 0005-4-000 ATOTECH, Inc.	5	gallons
A040	sc	5	100	L	nickel sulfate liquid. Product code 2200362-	5	gallons

ID	Type	Total Volume	% Full	Solid / Liquid	Notes:	Volume	Units
					0005-4-000 ATOTECH, Inc.		
A041	sc	5	50	L	square one poly bio-clean	2.5	gallons
A056	sc	5	100	l	MacDermid proprietary product. NIMAC 14 Index. 18114, Lot 218	5	gallons
A062	sc	5	50	s	sanodye black. Chromium III	2.5	gallons
A068	sc	5	90	l	metalast TCP-HF. Conversion coating chemical/anodizing steel	4.5	gallons
B007	sc	5	100	l	ammonia	5	gallons
B008	sc	5	100	l	open bucket. Full, unknown. Potentially nitric (fuming)	5	gallons
B009	sc	5	100	l	open bucket. Full, unknown. Potentially nitric (fuming)	5	gallons
B010	sc	5	100	l	unknown	5	gallons
C003	sc	5	0	na	no label. Empty	0	gallons
C007	sc	5	20	l/s	no label	1	gallons
C008	sc	5	20	s	caustic soda 50%	1	gallons
C013	sc	2.5	25	s/l	colovient "sansolye MF Violet"	0.625	gallons
C014	sc	2.5	25	s/l	aluminum brown GSL powder	0.625	gallons
C015	sc	2.5	50	s/l	turquoise PLW liquid	1.25	gallons
C016	sc	2.5	25	s/l	violet MCB conc. 100	0.625	gallons
C025	sc	5	100	l	WW 6000. waskwale compound	5	gallons
C026	sc	5	0	na	WW 6000. waskwale compound	0	gallons
C027	sc	5	50	l	WW 6000. waskwale compound	2.5	gallons
C028	sc	2	100	s	iridite 14-2; oxidizing solid chromic acid	2	gallons
C029	sc	2	0	na	sanodye MF Blue A	0	gallons
C030	sc	5	50	l	nickel sulfate ligand	2.5	gallons
C032	sc	5	100	s/l	flame suppressant	5	gallons

ID	Type	Total Volume	% Full	Solid / Liquid	Notes:	Volume	Units
C033	sc	5	100	s/l	water/reducer	5	gallons
C036	sc	5	75	1	ubac 2x make up	3.75	gallons
C038	sc	5	20	1	formula 501 all purpose cleaner	1	gallons
C039	sc	5	20	1	#200 cleaner and degreaser	1	gallons
C040	sc	5	66	1	flat latex paint	3.3	gallons
C041	sc	5	50	1	tech bond 38513	2.5	gallons
E001	sc	5	10	1	unknown	0.5	gallons
E002	sc	5	10	1	unknown	0.5	gallons
E003	sc	5	10	1	unknown	0.5	gallons
E004	sc	5	10	1	unknown	0.5	gallons
E005	sc	30	100	1	unknown	30	gallons
E008	sc	55	50	1	unknown	27.5	gallons
E010	sc	1	75	1	motor oil?	0.75	gallons
E011	sc	1	50	1	"ammonia solution"	0.5	gallons
E017	sc	5	0		"diesel"	0	gallons
E018	sc	5	0		"diesel"	0	gallons
E019	sc	5	100	1	nickel additive y-17. A To Tech	5	gallons
E020	sc	5	100	1	nickel additive y-17. A To Tech	5	gallons
E023	sc	5	100	1	meta plate 2500 B	5	gallons
E024	sc	5	100	1	meta plate 2500 B	5	gallons
E025	sc	5	100	1	trichrome stabilizer. Atotech	5	gallons
E026	sc	5	100	1	trichrome stabilizer. Atotech	5	gallons
E031	sc	5	10	1	ronatec, metaplate A	0.5	gallons
E032	sc	5	100	1	ronatec, metaplate A	5	gallons
E035	sc	5	10	1	nickel sulfate liquid	0.5	gallons
E045	sc	5	unk	unk	unknown	unk	gallons
E046	sc	5	unk	unk	unknown	unk	gallons
E050	sc	5		1	nickel sulfate liquid	0	gallons
E062	sc	5	100	1	wax seal	5	gallons
E063	sc	5	100	1	Isopropyl alcohol 99%	5	gallons
E064	sc	5	0	1	acetone	0	gallons
E065	sc	5	100	1	acetone	5	gallons
C019	super sack	1 cy	100	s	Haz-Waste Solid; F006, D007	1	yd3

ID	Type	Total Volume	% Full	Solid / Liquid	Notes:	Volume	Units
E016	tank	700	unk	1	Di Water	unk	gallons
C001	tank	1000	50	1	"chrome reduction" Tank 1: WI	500	gallons
C002	tank	1000	50	1	"1st Stage cyanide." Tank 2: WI	500	gallons
C004	tank	1500	50	1	"2nd Stage Cyanide." Tank 4: WI	750	gallons
C005	tank	1500	33	1	"neutralization, tank 5: WI	495	gallons
C006	tank	1500	33	1	"equalizant; tank 6: WI	495	gallons
C009	tank	5000	75	1	"surge tank" metal precipitate tank 12	3750	gallons
C009	tank	3000	80	1	sludge holding tank	2400	gallons
C011	tank	1000	66	1	"polymer" tank 11, metal precipitate	660	gallons
C012	tank	3000	75	1	no label	2250	gallons
C017	tank	15000	50	L	"tank 7, clarifier"	7500	gallons
C018	tank	unk	100	s	"tank 10, sludge dryer"	unk	gallons
C034	tank	5000	0	na	empty clarifier	0	gallons
E014	tote	250	100	1	bright Ni Soln.	250	gallons
E015	tote	250	50	1	inxperse 23-blue	125	gallons
A001	tote	275	20	L	UN1935, Waste CN Soln, NOS. 6.1 PGII (Copper Cyanide, Brass Cyanide)	55	gallons
A002	tote	275	90	L	UN1935, Waste CN Soln, NOS. 6.1 PGII (Copper Cyanide, Brass Cyanide)	247.5	gallons
A003	tote	275	90	L	UN1935, Waste CN Soln, NOS. 6.1 PGII (Copper Cyanide, Brass Cyanide)	247.5	gallons
A004	tote	275	5	L	Secondary Containment Overflow	13.75	gallons
A005	tote	275	0	na	no label. Empty	0	gallons
A006	tote	275	90	1	UN1935, Waste CN Soln, NOS. 6.1 PGII (Copper Cyanide, Brass Cyanide)	247.5	gallons

ID	Type	Total Volume	% Full	Solid / Liquid	Notes:	Volume	Units
A007	tote	275	90	1	UN1935, Waste CN Soln, NOS. 6.1 PGII (Copper Cyanide, Brass Cyanide)	247.5	gallons
A008	tote	275	90	1	UN1935, Waste CN Soln, NOS. 6.1 PGII (Copper Cyanide, Brass Cyanide)	247.5	gallons
A009	tote	275	90	1	UN1935, Waste CN Soln, NOS. 6.1 PGII (Copper Cyanide, Brass Cyanide)	247.5	gallons
A010	tote	275	0	na	no label. empty	0	gallons
A011	tote	275	0	na	empty. Ink residue	0	gallons
A012	tote	275	0	na	empty. Ink residue	0	gallons
A013	tote	275	0	na	empty. Ink residue	0	gallons
A020	tote	300	0	na	36% sulfuric solution	0	gallons
A021	tote	750	0	na	sodium bisulfate	0	gallons
A026	tote	275	0	na	enviroserv sticker	0	gallons
A027	tote	275	0	na	mylex extender letdown	0	gallons
A028	tote	275	0	na	ink waste residue. Ronpark	0	gallons
A029	tote	275	0	na	BASF Joncryl 89	0	gallons
A043	tote	275	90	1	caustic soda	247.5	gallons
A044	tote	275	90	1	BASF Joncryl 60	247.5	gallons
A045	tote	275	90	1	Haz-Waste Label. 3/7/14. RQ. Waste Corrosive Liquid. Acidic inorganic. Nitric/Water. UN 3264. PGII D002	247.5	gallons
A046	tote	1000	1	1	residue sodium hydrochloride	10	gallons
A047	tote	1000	0	na	1791 corrosive 8 tote	0	gallons
A052	tote	275	50	1	Haz-Waste Label. chromic acid/sulfuric acid. 6/4/12	137.5	gallons
A053	tote	275	50	1	Haz-Waste Label. chromic acid/sulfuric acid. 7/11/12	137.5	gallons
A054	tote	275	100	1	Haz-Waste Label. chromic acid/sulfuric acid. 7/11/12	275	gallons

ID	Type	Total Volume	% Full	Solid / Liquid	Notes:	Volume	Units
A055	tote	275	100	l	chromic acid soln. wash. 8/20/11	275	gallons
A057	tote	275	0	na	empty	0	gallons
A058	tote	275	100	l	"light chrome" chromic acid/sulfuric acid	275	gallons
A059	tote	275	0	na	empty	0	gallons
A060	tote	275	100	l	chromic acid	275	gallons
A061	tote	275	100	l	Haz-Waste Label. Chromic Acid/Sulfuric Acid	275	gallons
A069	tote	275	100	l	inxperse 23-blue 15:3	275	gallons
A070	tote	275	100	l	enviroserv	275	gallons
A071	tote	275	90	l	Haz-Waste Label. Chromic acid soln. 6/27/14	247.5	gallons
A072	tote	275	90	l	"bright nickel soln. good"	247.5	gallons
D005	tote	250	100	l	unknown	250	gallons
D006	tote	250	100	l	unknown	250	gallons
D007	tote	250	100	l	unknown	250	gallons
E057	tote	250	50	l	Haz-Waste Label. RQ HW Chromic Acid Soln. 8, UN1755, PGII. 6/19/14	125	gallons
E058	tote	250	75	l	Haz-Waste Label. RQ HW Chromic Acid Soln. 8, UN1755, PGII. 6/27/14	187.5	gallons
E059	tote	250	0	na	empty	0	gallons
E060	tote	250	0	na	empty	0	gallons
E012	vat	250	unk	l	stripping tank #2	unk	gallons
E054	vat	500	unk	s	possibly contains solids	unk	gallons
E055	vat	500	unk	s	possibly contains solids	unk	gallons
E013	vat	500	unk	l	stripping tank #1	unk	gallons

**Attachment D: Enviroserv Vat Inventory**

Highland Plating  
Master Inventory Matrix  
Interior Tanks and Containers  
9-10-1A

Inv. #	Sample #	Container			pH	Waste Description	Notes
		Size	Type	Contents			
1-1	AC-NIT-1	100-Gal	P		0-1	Nitric Acid	
1-2	AQ-1	55-Gal	PVC	40-Gal	5-7	Phosphoric Acid Rinse	
1-3	AQ-1	55-Gal	P		5-7	Phosphoric Acid Rinse	
1-4	AQ-1	55-Gal	PVC	30-Gal	5-7	Phosphoric Acid Rinse	
1-5	AC-SUL	1,500-Gal	M		0-1	Sulfuric Acid	
1-6	AC-SUL	1,500-Gal	M		0-1	Sulfuric Acid	
1-7	AQ-1	700-Gal	M		5-7	Rinse Water	
1-8	AQ-1	700-Gal	M		5-7	Color Max Rinse	
1-9	AC-CM	900-Gal	M		1-2	Color Max Acid	
1-10	AC-COP	900-Gal	M		0-1	Acid Copper	
1-11	DYE-1	55-Gal	P	25-Gal	1-2	Gold Dye	Not DOT
1-12	DYE-1	55-Gal	P	25-Gal	5-7	Blue Dye	Not DOT
1-13	DYE-1	900-Gal	M		5-7	Dye Rinse	
1-14	DYE-1	1,800-Gal	M		5-7	Dye Rinse	
1-15	DYE-1	55-Gal	P	40-Gal	5-7	Dye Rinse	Not DOT
1-16	DYE-1	55-Gal	P	40-Gal	5-7	Red Dye	Not DOT
1-17	DYE-1	900-Gal	M		5-7	Dye Rinse	
1-18	AC-DEOX	700-Gal	M		1-2	Deoxidizer Solution	
1-19	AC-DEOX	55-Gal	P	20-Gal	0-1	Deoxidizer Rinse	Not DOT
1-20	AC-NIT-1	60-Gal	P		0-1	Nitric Acid 40%	
1-21	AC-NIT-1	100-Gal	M	75-Gal	0-1	Nitric Acid 40%	
1-22	AC-NIT-1	100-Gal	M		0-1	Nitric Acid 40%	
1-23	AC-NIT-1	200-Gal	SS	100-Gal	0-1	Nitric Acid 40%	
1-24	AC-BD	200-Gal	M		0-1	Bright Dip - Nitric Acid	
1-25	AC-BD	15-Gal	P		0-1	Bright Dip - Nitric Acid	Not DOT
1-26	AC-BD	15-Gal	P		0-1	Bright Dip - Nitric Acid	Not DOT
1-27	AC-BD	Burned	PVC	30-Gal	5-7	Rinse Water	
1-28	AC-NIT-1	75-Gal	M	10-Gal	0-1	Low Strip - Nitric Acid	
1-29	AK-1	900-Gal	M		13-14	Sodium Hydroxide	
1-30	AK-1	900-Gal	M		10-11	Soap Cleaner	
1-31	NI-SEAL	900-Gal	M		5-7	Nickel Seal	
1-32	NI-SEAL	900-Gal	M		5-7	Nickel Seal	
1-33	AQ-DI	900-Gal	M		5-7	Hot Water Di	
1-34	DYE-2	900-Gal	M		5-7	Black Dye Rinse	

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Master Inventory Matrix