

Fact Sheet
May 2001

ELECTRON PLATING, III, INC. GARDEN GROVE, CALIFORNIA



DTSC ANNOUNCES RESULTS OF INVESTIGATIONS AND CLEANUP

It is DTSC's mission to protect public health and the environment from harmful exposure to hazardous substances.

INTRODUCTION

The California Department of Toxic Substances Control (DTSC) has prepared this fact sheet to announce the results of investigations and cleanup at the Electron Plating III, Inc. (Electron) site located at 13932 Enterprise Drive, Garden Grove, California 92643. Electron specializes in the plating of aluminum and steel materials. The site consists of a concrete office/warehouse building which includes plating operations and related activities.

In March 1999, signs of leaking chemicals at the site prompted an investigation to determine if chemicals, including chromium and heavy metals such as nickel and cadmium, posed a threat to plant workers, nearby residents, or the environment. DTSC determined that the contamination would not pose a threat to human health or the environment if properly treated and further leaks prevented. Those measures have now been successfully completed. This fact sheet provides details of the investigation results, and a description of what was done to remedy the situation.

DTSC'S ROLE

DTSC has provided regulatory oversight for the investigation and cleanup of the Electron site under a Corrective Action Consent Agreement pursuant to Section 25187 of the California Health and Safety Code. Under this section of the statute, a property owner or operator is required to investigate and implement corrective action within the fence line of the site property.

INVESTIGATION RESULTS

Investigations conducted under DTSC oversight found the contamination was limited mainly to the shallow soil under the plating building and that the chemicals have not entered the groundwater. The following are details of the investigations and findings:

Investigations included taking soil samples (soil borings) at different depths, and looking for the presence of chemicals by measuring the levels of gases in the soils (soil gas) at different depths. Forty-eight soil borings were completed and 10 soil

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gas locations were surveyed. Samples were analyzed for 17 heavy metals, cyanide, and organic compounds. Elevated concentrations of nickel, cadmium, total chromium, and hexavalent chromium (chromium 6) were found in the upper five feet of soil. Only three of the 48 soil borings encountered metals at a depth greater than five feet. Hexavalent chromium was the only metal detected in the middle depth, at 14 feet below ground surface. The hexavalent chromium readings were well below levels requiring further investigation.

The initial soil gas survey detected volatile organic compounds (VOCs) in the upper five feet of soil. Another soil gas survey was then conducted to 20 feet below ground surface at locations where the highest vapor concentrations were reported. The VOC readings were well below levels requiring further investigation, and concentrations of contaminants in the soil decreased with depth. The fine-grained, silty clay layer from 12 to 20 feet below ground surface serves as a natural barrier to contaminant migration to the groundwater zone located at 40 to 45 feet below ground surface.

HUMAN HEALTH RISK ASSESSMENT

In November 1999, a Human Health Risk Assessment (HHRA) was conducted by DTSC to determine whether human health or the environment were at risk from contamination. The HHRA indicated there is no elevated cancer risk for the workers at the Electron site or the nearby residents.

CLEANUP METHOD

Electron conducted a Corrective Measures Study (CMS) to evaluate all available cleanup alternatives. The selected remedy was construction of an impermeable cap surrounded by a berm (barrier wall) over the contaminated areas within the Electron site fence line, and long-term operation and maintenance (O&M). This alternative was selected by DTSC because it was deemed less disruptive to neighbors, and was the most cost effective while protecting public health and the environment.

WHAT'S BEEN DONE

To prevent infiltration of chemicals into the soils and protect the groundwater from contaminants, Electron constructed an impermeable cap consisting of a concrete slab coated with epoxy sealant over the existing plating shop floor. Containment berms were built around the plating area to prevent runoff of chemicals. Spill control measures such as tank overflow controls, regular inspection and maintenance of the impermeable cap and sealant, and employee training and awareness will serve to further reduce surface runoff or migration of contaminants into the soil. The O&M agreement between DTSC and Electron will ensure the impermeable cap is inspected periodically and properly maintained.

These measures will protect the safety of both workers and nearby residents. Additionally, a deed restriction will be filed by DTSC in the near future with the Orange County Assessor's Office to limit future land uses to prevent disruption of the capped areas and prohibit use of onsite groundwater. The deed restriction also indicates that further corrective action may be required upon facility closure or other changes in land use.

CURRENT OPERATIONS

Electron has discontinued chrome plating, chromic anodizing, and cadmium plating operations at the property. Currently, only a sulfuric acid anodizing line and associated rinse tanks are operating. In October 2000, DTSC conducted an inspection to ensure the integrity of the impermeable cap and sealant. To address concerns from neighboring businesses and residences regarding odors, the South Coast Air Quality Management District (SCAQMD) conducted a compliance inspection, which found that Electron was operating in compliance with SCAQMD regulations.

PUBLIC PARTICIPATION AND THE PROJECT

DTSC prepared a Statement of Basis document for the cleanup remedy that explains how and why the

proposed cleanup remedy was selected, as part of its public participation responsibilities under the Corrective Action program. DTSC also conducted a community survey in July 2000 to determine the level of community interest regarding Electron.

FOR ADDITIONAL INFORMATION

DTSC will continue to keep interested persons informed about the Electron site as necessary. To receive information, ask questions by telephone, or to request a copy of the Statement of Basis document, please contact Irena Edwards, DTSC Project Manager at (714) 484-5385, or Stacey Lear, DTSC Public Participation Specialist at (714) 484-5354. If you reach a voice mail recording, please leave your name, phone number, and message and DTSC will return your call. For media contact, please call Lisa Kunz, Assistant Public Information Officer at (916) 327-6104.

LIST OF TERMS AND ACRONYMS

California Department of Toxic Substances Control (DTSC) - State agency responsible for regulating hazardous waste in California.

Cap - A layer of material (such as clay) used to prevent rainwater from penetrating and spreading contaminated materials. The surface of the cap is generally mounded or sloped so water will drain off.

Corrective Action - Action taken to investigate and clean up contaminated releases from hazardous waste treatment, storage, and disposal facilities.

Corrective Measures Study (CMS) - A study conducted by the facility owner/operator to identify and evaluate alternative remedies to address contaminant releases at a site.

Groundwater - Water beneath the earth's surface that flows through soil and rock openings, and often serves as a primary source of drinking water.

Heavy Metals - A group of elements (such as chro-

mium, lead, copper, and zinc) that can be toxic at relatively low concentrations.

Hexavalent Chromium - Chromium is an industrial metal used in diverse products and processes. Chromium is found primarily in two states: trivalent chromium (chromium 3), and hexavalent chromium (chromium 6). Hexavalent chromium is a known carcinogen that can enter the body through inhalation (i.e., breathing) or through ingestion of food or water contaminated by the metal.

Human Health Risk Assessment (HHRA) - An assessment conducted to estimate the health risk associated with exposure to known contamination, and to calculate allowable concentrations that limit the risk to an acceptable level.

Operation and Maintenance (O&M) - A maintenance plan or program to ensure a cleanup methodology is continuing its job as required.

Soil boring - A hole formed in the ground for conducting soil sampling.

Soil gas survey - A survey conducted in the soil to detect gaseous elements and compounds in the small spaces between particles of the earth and soil. Such gases can be moved or driven out under pressure.

South Coast Air Quality Management District (SCAQMD) - The local smog control agency that regulates releases of pollutants to the atmosphere for all portions of Los Angeles, Orange, Riverside, and San Bernardino counties.

Sulfuric acid anodizing line - A chemical process for preventing corrosion/rust of metallic surfaces.

Volatile Organic Compound (VOC) - Any organic compound which vaporizes and reacts with the atmosphere.

MAILING COUPON

If you are not currently on the mailing list, or if you know of an individual or group that would like to be added to the Electron site mailing list, please complete and return the mailing coupon. Please address all mailings to Stacey Lear, Public Participation Specialist, DTSC, 5796 Corporate Avenue, Cypress, CA 90630.

Name: _____

Affiliation: _____

Street: _____

City: _____

Phone: _____

Comments: _____

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