

**EPA Superfund
Explanation of Significant Differences:**

**ALADDIN PLATING
EPA ID: PAD075993378
OU 02
SCOTT TOWNSHIP, PA
01/21/2000**

EXPLANATION OF SIGNIFICANT DIFFERENCES ALADDIN PLATING SUPERFUND SITE

I. INTRODUCTION

Site Name: Aladdin Plating Superfund Site

Site Location: Scott and South Abington Townships, Lackawanna County, Pennsylvania

Lead Agency: U.S. Environmental Protection Agency, Region III ("EPA")

Support Agency: Pennsylvania Department of Environmental Protection ("PADEP")

Statement of Purpose

EPA issued a Record of Decision ("ROD") for operable unit 2 ("OU2") of the Aladdin Plating Superfund Site ("Site") on December 30, 1993. This Explanation of Significant Differences ("ESD") is issued in accordance with Section 117(c) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, ("CERCLA"), 42 U.S.C. § 9617(c), and Section 300.435 (c)(2)(i) of the National Oil and Hazardous Substance Pollution Contingency Plan ("NCP"), 40 C.F.R. § 300.435(c)(2)(i). EPA is required to publish an explanation of significant differences if the remedial action taken at a Site differs significantly from the remedy selected in a Record of Decision, and such differences significantly change, but do not fundamentally alter, the remedy selected in the Record of Decision with respect to scope, performance, or cost. This ESD has been prepared to provide the public with an explanation of the nature of the changes made to the selected remedy for the contaminated ground water identified in the ROD for OU2, to summarize the information that led to the making of the changes, and to demonstrate that the revised remedy complies with the statutory requirements of Section 121 of CERCLA, 42 U.S.C. § 9621. The remedy changes do not fundamentally alter the remedy or performance of the remedy, and therefore a ROD amendment is not required. This ESD is incorporated into the Administrative Record file for the Site. The location of the Administrative Record file is set forth in Section VI of this ESD.

II. SUMMARY OF THE SITE HISTORY, CONTAMINATION PROBLEMS, AND SELECTED REMEDY

The Aladdin Plating Site is located near Scranton, Pennsylvania (Figure 1) on Layton Road in Scott and South Abington Townships, Lackawanna County, Pennsylvania, approximately 1.5 miles north of the town of Chinchilla. The Site is surrounded on all sides by residential properties.

The Site covers approximately 6 acres on a hillside. The topography slopes steeply away from the Site on three of its sides. Griffin Reservoir, a local potable water source, is 2000 linear

feet north and topographically downhill from the Site. The Site is currently covered with grasses and small trees planted after the removal of the contaminated soil in Operable Unit 1.

Site contamination resulted from electroplating activities conducted from 1947 to 1982 by the Aladdin Electroplating Company. This company was primarily involved in chromium electroplating, but also conducted decorative electroplating using copper and nickel, and electroless nickel plating. In addition to these three metals, various plating baths used at the facility contained sulfuric, chromic, and hydrochloric acids, as well as caustic and cyanide solutions. Liquid wastes generated by the company presumably contained all of these materials. Both concentrated plating baths and rinse water were two sources of these wastes.

Historically, these liquid wastes were deposited into two, unlined surface impoundments on-site. The liquid wastes flowed downhill via an open drainage ditch from the electroplating building to the surface impoundments. This resulted in chromium contamination of the surface soil in the area of the process building and on the hillside below the site.

EPA issued a Record of Decision (ROD) for the Aladdin Plating Superfund Site in September 1988. The ROD outlined a Remedial Action (RA) for the principal threat (contaminated soil) at the Site, which was the first Operable Unit (OU1). The major components of the RA included:

- A chromium cleanup level for soil of 50 ppm.
- Excavation and off-site stabilization of approximately 12,000 cubic yards of chromium-contaminated soil.
- Disposal of the stabilized soil in an appropriate off-site landfill.
- Replacement of excavated soil with clean fill.
- Future study of ground water.

The Remedial Action (RA) for operable unit 1 was performed from October 1989 through July 1990. Additional soil sampling was conducted during the Phase 1 RA in areas adjacent to the area defined in the ROD which revealed additional areas of soil exceeding the 50 ppm chromium Site cleanup level.

In accordance with section 117(c) of CERCLA, 42 U.S.C. § 9617(c), EPA issued an Explanation of Significant Differences (ESD), which is now part of the Administrative Record for the Site. The ESD called for excavation and off-site treatment or disposal of an additional 12,100 cubic yards of chromium-contaminated soils to be completed as the Phase 2 RA. The Phase 2 RA was performed by EPA from September 1990 through May 1991. The area

addressed in Operable Unit 1 (both phases) measures approximately 400 feet by 1500 feet. This action removed the source of the contamination from the site.

Although the contaminated soil had been removed, there remained a plume of contaminated ground water in the shallow aquifer underneath the site. EPA conducted a remedial investigation/feasibility study to evaluate the extent of contamination and the options for addressing this contamination.

On December 30, 1993, EPA issued the ROD for OU2, which addressed contaminated ground water at the Site. The selected remedy set forth in the ROD for OU2 included the following components:

1. Institutional controls to prohibit excavation or well-drilling into or through the shallow water-bearing zone beneath the entire 6-acre parcel on which the electroplating building and impoundments were formerly located; and
2. Collection and analysis of samples from monitoring and residential wells for thirty years to ensure that contamination is not migrating to locations where it might present a threat to human health or the environment.

III. DESCRIPTION OF SIGNIFICANT DIFFERENCES AND THE BASIS FOR THOSE DIFFERENCES

EPA has determined that certain changes in the remedy set forth in the ROD for OU2 are warranted. These changes are significant changes as defined in Section 300.435(c)(2)(i) of the NCP, 40 C.F.R. § 300.435(c)(2)(i); therefore, preparation of this ESD is required. A ROD Amendment is not required because the changes do not fundamentally alter the selected remedy.

A. Description of the Changes

1. **Collection and analysis of samples** - the purpose of this sampling is to determine whether or not the contamination at the site is migrating to the aquifer that is used for drinking water supplies, and therefore creating a threat to public health for those residents using this aquifer for drinking water supplies. The removal activities specified in CERCLA Section 101(23) include the actions listed above. EPA's intent for this activity is consistent with the actions listed in CERCLA for removal actions, and this part of the action planned for the Aladdin Plating Site should have been identified as a removal action rather than a remedial action. Therefore, this sampling will no longer be considered part of the remedial action or operation and maintenance activities at the site. However, there will be no change in the actual sampling procedures or schedule.

B. Rationale for the Change

EPA has determined that the changes to the ROD for OU2 described above are needed, and that implementation of the revised remedy will be protective of human health and the environment based on the information and facts described below:

1. Performance

There will be no change in the performance of the remedy as a result of this change. The sampling and analysis will continue as it has in the past.

2. Timing

There will be no change in the timing of the remedy as a result of this change.

3. Costs

The costs for the remedy will not change due to the changes set forth in this ESD.

IV. SUPPORT AGENCY COMMENTS

EPA notified the PADEP of the changes proposed in this ESD in accordance with 40 C.F.R. § 300.435(c)(2). PADEP has indicated that it does not have any objections to this ESD.

V. AFFIRMATION OF THE STATUTORY DETERMINATIONS

EPA has determined that the revised remedy complies with the statutory requirements of Section 121 of CERCLA, 42 U.S.C. § 9621. Considering the new information that has been developed and the changes that have been made to the selected remedy, EPA believes that the remedy remains protective of human health and the environment, complies with Federal and State requirements that are applicable or relevant and appropriate to this remedial action in accordance with Section 121(d) of CERCLA, 42 U.S.C. § 9621(d), and is cost-effective. In addition, the revised remedy utilizes permanent solutions and alternative treatment technologies to the maximum extent practicable for this Site.

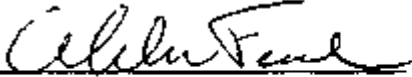
VI. PUBLIC PARTICIPATION

The ESD and the information upon which it is based have been included in the Administrative Record file and the information repository for the Site. The Administrative Record file is available for public review at the locations listed below:

U.S. EPA, Region III
1650 Arch Street
Philadelphia, PA 19103-2029
Hours: Mon. - Fri., 9:00 a.m. - 4:00 p.m.

Questions concerning EPA's action and requests to review the Administrative Record should be directed to:

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U.S. EPA - Region III
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Abraham Ferdas, Director
Hazardous Site Cleanup Division

1/21/00
Date