

## **Explanation of Significant Differences**

### **March AFB IRP Sites 10 and 15**

#### **Introduction and Statement of Purpose**

Site: March AFB in Riverside County, California

Lead Agency: US Air Force

Support Agencies: US EPA, Region 9  
California Department of Toxic Substances Control  
California Regional Water Quality Control Board, Santa Ana Region

Legal Basis: CERCLA 117 (c) and NCP 300.435(c)(2)(i)

Operable Unit 1 Record of Decision (OU1 ROD) Signature Date: June 1996

Need for Explanation of Significant Differences (ESD): The ROD selected remedy for soils at Sites 10 and 15 was excavation and low temperature thermal desorption. The soils were excavated and treated by bio-remediation and properly recycled to approved regulatory standards.

This ESD will be entered in the Administrative Record maintained at March ARB. The Administrative Record is available for review during normal business hours.

#### **Site History, Contamination, and Selected Remedy**

Brief Summary of Contamination Problems and Site History (from the OU1 ROD):

Site 10 (Flightline Drainage Channel). This site is located southeast of the flightline aircraft maintenance areas (see attached). The drainage channel, which was installed prior to 1940, has reportedly received various waste oils, hydraulic fluids, diesel fuel, jet fuel, waste paints, paint strippers, paint thinners, battery acids and solvents (including TCE). The drainage channel is concrete lined (since the 1960s) up to the eastern boundary of the base where it discharges to the Perris Valley Storm Drain. The Perris Valley Storm Drain flows east approximately 2 miles, where joins another drainage and flows south approximately 6 miles to the San Jacinto River. Prior to 1974, waste disposed of in the drainage channel may have been discharged directly to the Perris Valley Storm Drain. Since 1974, the main oil/water separator (Site 9) has pretreated the runoff before its discharge off base. Primary contaminants of concern are PAHs, which were detected in drainage ditch sediments. PAHs are a series of petroleum derivatives found in many fuel and asphalt compounds.

Site 15 (Fire Protection Training Area Number 3). This site is located southeast of runway 12-30 and between Sites 5 and 7 (see attached). The area was developed in 1978 and was reportedly constructed by placing an underdrain system and gravel over a clay liner. Firefighting water, solutions of Aqueous Film Forming Foam (AFFF), and residual fuel used during training exercises were drained to a formerly unlined water holding pond located adjacent to Site 15. Approximately 6,000 gallons per year of contaminated JP-4 have been burned in training exercises since the facility was constructed in 1978. The site is no longer being used as a fire training area. The primary contaminant of concern is phenanthrene, a PAH.

Selected Remedy (as described in the OUI ROD):

For both Sites 10 and 15, the preferred method of cleanup of these soils is excavation and low-temperature thermal desorption.

### **Basis for Document**

In the OUI ROD, both low-temperature thermal desorption and bio-remediation alternatives were evaluated against the nine CERCLA and SARA criteria as follows:

**Overall Protection of Human Health and the Environment.** Both low-temperature thermal desorption and ex-situ bio-remediation provided protection from the principal health and environmental threats from the soils at Sites 10 and 15. Both alternatives are protective of human health and the environment.

**Compliance with ARARs.** Both alternatives comply with ARARs.

**Long-term Effectiveness and Permanence.** Both alternatives provide long-term effectiveness and permanence.

**Reduction of Toxicity, Mobility, or Volume Through Treatment.** Both alternatives were rated equally in reduction of toxicity, mobility or volume through treatment.

**Short-Term Effectiveness.** In both alternatives, worker protection during excavation, transportation and treatment posed a minor concern. Engineering controls can be used for worker protection (e.g. dust suppression, hearing protection) and therefore the short-term risks are judged to be controllable. Both alternatives were rated equally for short-term effectiveness.

**Implementability.** Both low-temperature thermal desorption and ex-situ bio-remediation were described in the ROD as easily implemented, proven technologies. However, low temperature thermal desorption was given a better rating than ex-situ bio-remediation.

Cost. At Site 10, both alternatives were similar in cost. Low-temperature thermal desorption was judged to be less expensive alternative at Site 15.

State and Community Acceptance. No differences were noted for either alternatives.

The OU1 ROD selected low-temperature thermal desorption over ex-situ bio-remediation because it was less expensive and more easily implemented. Another evaluation was done prior to cleanup and bio-remediation was determined to be less expensive.

### **Description of Significant Differences**

In addition to the PAH contamination described in the ROD, petroleum soil contamination was also found at the site. The remediation contractor performed another cost analysis in which the equally protective remedy of bio-remediation was preferred over low temperature thermal desorption.

The significant difference from the OU1 ROD is that bio-remediation was implemented as the remediation technology instead of low temperature thermal desorption. The regulatory agencies concurred with this remedy change.

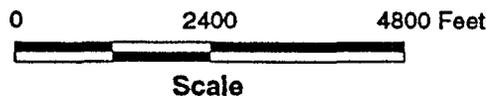
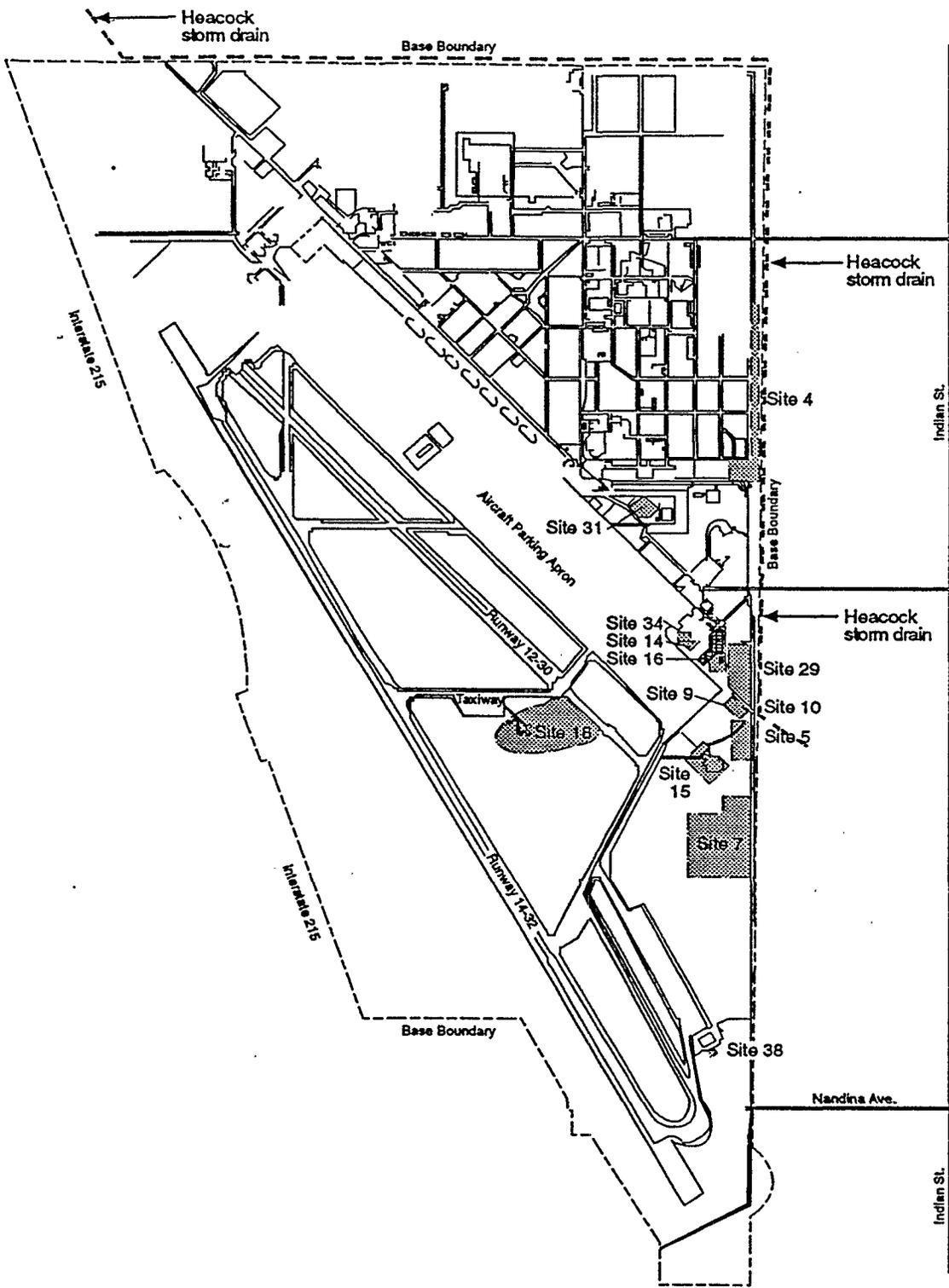
The cleanup strategy and actions are described in the Final Closure Report, Site 10 and 15, also in the administrative record. The soil treatment for both sites was completed in August 1995.

### **Support Agency Comments**

Comments from the US EPA, Region 9 were incorporated in this document. No changes were required from reviews by California Department of Toxic Substances Control and the California Regional Water Quality Control Board, Santa Ana Region

### **Attachment**

Figure 2-2, Location of Operable Unit 1 Sites, Operable Unit 1 Record of Decision



March Air Force Base, California

**Location of  
Operable Unit 1 Sites**

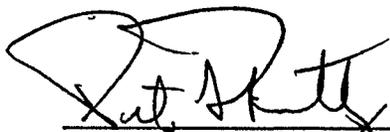
9-95

Figure 2-2

049032 ROD 2

This Explanation of Significant Differences documents the change in remediation technology for Installation Restoration Program Sites 10 and 15 at March ARB, California.

This Explanation of Significant Differences may be executed and delivered in any number of counterparts, each of which when executed and delivered shall be deemed to be an original, but such counterparts shall together constitute one and the same document.



Signature

PETER T. BENTLEY, Col, USAFR  
Commander

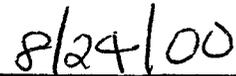
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Date

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Signature

Daniel A. Meer, Chief  
Federal Facilities Cleanup Branch

  
\_\_\_\_\_  
Date

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Signature

John E. Scandura, Chief  
Southern California Branch  
Office of Military Facilities  
Department of Toxic Substances Control  
California Environmental Protection Agency

9/21/00  
Date

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Gerard J. Thibeault  
Executive Officer  
Santa Ana Regional Water Quality Control Board

9/28/00  
Date