

# **McClellan**

## **Soils Management Manual**



**U.S. AIR FORCE**



Prepared for  
**The Air Force Real Property Agency**  
By  
**The Air Force Center for Environmental Excellence**

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## LIST OF ACRONYMS

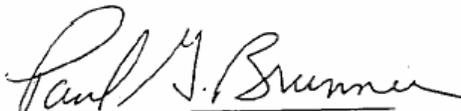
AFB	Air Force Base
AFCEE	Air Force Center for Environmental Excellence
AFIERA	Air Force Institute for Environmental and Occupational Health Risk Analysis
AFRPA	Air Force Real Property Agency
AFRPA Form 370	AFRPA Form 370 (Encroachment/Work Clearance Permit form)
AOC	Area of concern
BCT	BRAC Cleanup Team
BEC	BRAC Environmental Coordinator
Bgs	Below Ground Surface
BRAC	Base Realignment and Closure
CCSHA	CERCLA Contaminated Soils Holding Area
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CFR	Code of Federal Regulations
COC	Contaminant of Concern
COR	Contracting Officer's Representative
CS	Confirmed Site
CSHA	Clean Soils Holding Area
DoD	Department of Defense
EM	Environmental Management
EPA	Environmental Protection Agency
ERPIMS	Environmental Restoration Program Information Management System
FFA	Federal Facilities Agreement
FPM	Field Project Manager
FTM	Field Team Manager
FS/PP	Feasibility Study/Proposed Plan
HAZWOPER	Hazardous Waste Operations and Emergency Response
HSP	Health and Safety Plan
HWL	Hazardous Waste Label
HWPM	Hazardous Waste Project Manager
IAG	Interagency Agreement
IC	Investigative Cluster
IDM	Investigation Derived Material
IH	Industrial Hygienist
ILCR	Incremental Lifetime Cancer Risk
IRP	Installation Restoration Program
LRA	Local Redevelopment Authority (Sacramento County)
MAP	Management Action Plan
MIL	Materials Information Label
MIS	Materials Information Sheet
MP	McClellan Park

NPL	National Priorities List
O&M	Operation and Maintenance
OSHA	Occupational Safety and Health Administration
OSL	On-Site Laboratory
OU	Operable Unit
OVM	Organic Vapor Meter
PA/SI	Preliminary Assessment/Site Inspection
PCB	Polychlorinated Biphenyl
PPE	Personal Protective Equipment
POC	Point of Contact
PRL	Potential Release Location
QAPP	Quality Assurance Project Plan
QA/QC	Quality Assurance/Quality Control
RA	Removal Action
RCRA	Resource Conservation and Recovery Act
RI/FS	Remedial Investigation/Feasibility Study
RICS	Remedial Investigation Characterization Summary
ROD	Record of Decision
RPM	Remedial Project Manager
SA	Study Area
SAP	Sampling and Analysis Plan
SARA	Superfund Amendments and Reauthorization Act
SPM	Soils Program Manager
SSA	Special Study Area
STLC	Soluble Threshold Limit Concentration
SVE	Soil Vapor Extraction
TIS	Technical Information System
TPH	Total Petroleum Hydrocarbons
UN	United Nations
USA	Underground Services Alert
UST	Underground Storage Tank
VOC	Volatile Organic Compound
WET	Waste Extraction Test

## Approval

The McClellan Soils Management Manual has been prepared in cooperation with federal (United States Environmental Protection Agency, Region IX) and state (Department of Toxic Substances Control and Regional Water Quality Control Board) regulatory agencies. This Manual will be used to manage Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) soils at McClellan Park (formerly McClellan Air Force Base).

I, as the McClellan BRAC Environmental Coordinator for the Air Force Real Property Agency, approve this Manual, and request that all entities performing soils work at the former McClellan Air Force Base follow the procedures outlined in the McClellan Soils Management Manual dated February 2003.



PAUL G. BRUNNER  
BRAC Environmental Coordinator  
Air Force Real Property Agency  
Division D/McClellan

11 Feb 03  
DATE

## 1.0 INTRODUCTION

This Soils Management Manual has been prepared to aid professional staff at McClellan Park California (McClellan), formerly McClellan Air Force Base (AFB), in complying with all of the regulatory requirements governing soils management at McClellan. This manual is the latest in a series of soils management plans, which are briefly discussed below. This manual incorporates the latest requirements for soils management in the context of the redevelopment and ongoing environmental cleanup, at McClellan.

The first base-wide Soils Management Plan was written in-house by the Environmental Management Directorate (EM) Restoration Division and was titled *McClellan AFB Directorate of Environmental Management Soils Management Program (June 1991)*. It specified a decision process consistent with the governing regulations for the disposition of soil and debris generated at McClellan. It also included a detailed Sampling and Analysis Plan (SAP) for determination of concentrations of contamination at a site.

From this document evolved the *Soil/Debris Management Plan for McClellan AFB, California* (Radian December 1991). The Soil/Debris Plan was a comprehensive collection of the many rules and regulations that govern the soils management program at McClellan. This document can be found in the Administrative Record at McClellan (GGG-41 & 15 respectively).

This new Soils Management Manual was created to provide a practical field guide for all operating entities on McClellan. While the past *Soil/Debris Management Plan* (Radian December 1991) continues to provide detailed information of a regulatory nature, this new Soils Management Manual is intended as a streamlined, day-to-day operations field guide for soils management activity.

The Soils Management Manual is organized as follows:

- A List of Acronyms is provided as a quick reference for the terms used in this manual.
- The body of the Manual provides the following information:
  1. Section 1 gives a brief background of McClellan, explains the need for a soils management program with an overview of the soil classifications, procedures, and landfill classes, the regulatory structure that controls it, and the Air Force Real Property Agency/DD-McClellan (AFRPA) structure that administers it.
  2. Section 2 establishes standard procedures and the AFRPA Encroachment Permit Process for handling soils generated as part of any soil disturbance activity at McClellan. Also described are interactions between the Local Redevelopment Authority (LRA), Sacramento County, McClellan Park (MP), and AFRPA to ensure that remediation and property transfer are well coordinated.
  3. Section 3 addresses investigation-derived material (IDM). IDM may include, in addition to soils that may be contaminated, used personal protective equipment and decontamination materials.

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- The tables included in the body of the text provide the following information:
  1. Soils Classification Table (Table 1-1).
  2. Soils Handling Procedures (Table 1-2).
  3. Landfill Acceptance Criteria (Table 1-3).
  
- The Appendices provides the following information:
  1. Appendix A provides a copy of the Materials Information Label (MIL), Hazardous Waste Label (HWL) and instructions for the labels.
  2. Appendix B provides a copy of the Materials Information Sheet (MIS) and instructions for completing the sheet.
  3. Appendix C contains the Encroachment/Work Clearance Permit, Operating Instructions and Frequently Asked Questions.
  4. Appendix D provides a list of Points of Contact (POCs) for the soil disturbance activities at McClellan Park.
  5. Appendix E presents the preliminary surface and near surface soil sampling plan for proposed property owner construction projects.
  6. Appendix F provides a copy of the McClellan Soils Dump Slip/Materials Disposition Permit.
  
- The figures included in the body of the text provides the following information:
  1. AFRPA Permitting Process for Soil Disturbance Activities (Figure 2-1).
  2. Actions taken when Soil Contamination is discovered on Encroachment Permit Approved Work (Figure 2-2).
  3. Category A Excavated Soil with Analytical Results Below Action Levels (Figure 2-3).
  4. Categories B and C Excavated Soil with Analytical Results Above Action Levels (Figure 2-4).

### 1.1 BACKGROUND

McClellan AFB was an active military facility from 1939 until July 2001. In July 2001 the Base was closed, and large portions of the base were leased to Sacramento County and its redevelopment partner McClellan Park (MP). Operations at the base have included maintenance and repair of aircraft, communications equipment and electronics. These operations resulted in contamination of many areas of McClellan and little of the base remains in a pristine condition. Consequently, virtually all soil disturbance activity at McClellan has the potential to adversely affect on-site workers and/or adjacent workers and area residents through exposure to contaminated soils.

In 1979, McClellan began investigating the extent of contamination at the base and in the underlying groundwater aquifer. Investigations have since identified 319 contaminated or potentially contaminated sites.

## Section 1

In 1981, the United States Department of Defense (DoD) developed the Installation Restoration Program (IRP) to identify and evaluate suspected contamination problems resulting from past hazardous material disposal practices at Air Force facilities.

McClellan AFB was placed on the National Priorities List (NPL) in 1987 which brought the base under the jurisdiction of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA). In 1995, the Base Realignment and Closure (BRAC) Commission selected McClellan for closure.

CERCLA Section 120(e)(2) requires federal agencies whose facilities are included on the NPL to enter into an Interagency Agreement for the cleanup of each such facility (42 USC § 9620(e)(2)). The DoD and United States Environmental Protection Agency (EPA) have agreed upon a model language to satisfy this legal requirement, and identified it as a Federal Facilities Agreement (FFA). McClellan AFB, the EPA, and the State of California signed an Interagency Agreement (IAG) in 1989 for the cleanup of McClellan.

As an NPL site and a closure base, cleanup is managed in accordance with BRAC requirements, CERCLA, Resource Conservation and Recovery Act (RCRA), state and local laws, and the FFA. The FFA requires that environmental impacts associated with past and present site activities are thoroughly investigated and that appropriate remedial action is taken as needed to protect public health, welfare, and the environment. The FFA also establishes a procedural framework and schedule for developing, implementing, and monitoring response actions and facilitates cooperation, exchange of information, and participation between the Air Force, the EPA, and appropriate state agencies. The IRP is administered by the AFRPA with support from the Air Force Center for Environmental Excellence (AFCEE).

### 1.2 DESCRIPTION OF CONTAMINANTS

McClellan is divided into ten operable units (OUs) for regulatory purposes and for convenience in managing the IRP. In general, a similar suit of Contaminants of Concern (COCs) characterizes the OUs. The COCs that may be found include, but are not limited to, the following; volatile organic compounds, semi-volatile organic compounds, non-volatile organic compounds, polynuclear aromatic hydrocarbons, polychlorinated biphenyls, heavy metals (i.e. mercury), petroleum, fuels, pesticides and radioactive material. A more detailed list of contaminants can be found in McClellan's *Remedial Investigation Characterization Summary (RICS) Documents (1996-2001)*.

There are Investigative Clusters (ICs) defined within each OU that are delineated with approximate boundaries and designated as sites. In this manual, "site" may refer to an individual site or an IC as defined in the *McClellan AFB Management Action Plan (MAP)* (July 1993), whether it is a confirmed site (CS), a potential release location (PRL), or a study area (SA).

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Sites were named as they entered the CERCLA process. Sites that have had sufficient sampling to confirm the presence of contaminants at levels that exceed screening criteria are listed as a CS. Some sites were labeled as PRLs because historical records indicate past activities that were thought to have contaminated the site, but insufficient samples have been taken to confirm the suspicion. A third category, SAs, includes sites for which an even smaller amount of historical evidence existed to identify suspect activities with a potential to contaminate the site, but no samples had been taken to confirm or dispel the suspicion. The site names have not changed even though more data has been collected.

### **1.3 MANAGEMENT PRINCIPLES**

AFRPA has established a program for the management of excavated soil that is protective of human health and the environment, facilitates McClellan's remediation effort, and minimizes the transport and storage of soil on McClellan property. This program is based on available guidance for the management of investigation-derived waste (Management of Investigation-Derived Wastes During Site Inspections, EPA 1992) and corrective action management units (Federal Register, 16 February 1993). Table 1-1, Soils Classification Table; and Table 1-2, Soils Handling Procedures describe the classification of soils based on contaminant concentrations and the appropriate means of disposal. Additionally, the three primary classes of landfill sites permitted to receive waste material with varying degrees of hazardous properties are described in Table 1-3, Landfill Acceptance Criteria.

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**Table 1-1: Soils Classification Table**

Category	Soil Characterization	Hierarchy of Soils Handling Procedures
<b>A</b>	<p>Soils that are below Action Levels. Soils that are equal to or less than <math>1 \times 10^{-6}</math> Incremental Lifetime Cancer Risk (ILCR) and equal to or less than the hazard quotient of 1.0.</p> <p><b><math>\leq 1 \times 10^{-6}</math> ILCR and <math>\leq</math> hazard quotient of 1.0</b></p>	<ol style="list-style-type: none"> <li>1. Return soils to original site.</li> <li>2. Soils may be placed in the Clean Soils Holding Area.</li> <li>3. Soils containing debris shall be sent off-site to a Class III Landfill.</li> </ol>
<b>B</b>	<p>Soils that are above Action Levels. Soils that are greater than <math>1 \times 10^{-6}</math> ILCR and/or greater than the hazard quotient of 1.0, but not in category C (below).</p> <p><b><math>&gt; 1 \times 10^{-6}</math> ILCR and/or <math>&gt;</math> Hazard quotient of 1.0</b></p>	<ol style="list-style-type: none"> <li>1. Return soils to original site.</li> <li>2. Excess soils shall be sent off-site to a Class II Landfill if it meets acceptance criteria.</li> <li>3. Soils shall be placed in the CCSHA.</li> </ol>
<b>C</b>	<p>Soils that are greater than RCRA or State Hazardous Waste Levels.</p> <p><b><math>&gt;</math> RCRA Levels <math>&gt;</math> State Hazardous Waste Levels</b></p>	<p>Soils shall be transported and disposed of off-site as hazardous waste in a Class I Landfill.</p>

**Table 1-2: Soils Handling Procedures**

<ul style="list-style-type: none"> <li>• Return as much soil (Category A and B) to its original site whenever possible.</li> </ul>
<ul style="list-style-type: none"> <li>• Excess Category A soils shall be placed in the Clean Soils Holding Area (CSHA) or if soil contains debris it shall be sent for off-site disposal at a Class III Landfill.</li> </ul>
<ul style="list-style-type: none"> <li>• Excess Category B soils shall be sent for off-site disposal at a Class II Landfill or placed in the CERCLA Contaminated Soils Holding Area (CCSHA).</li> </ul>
<ul style="list-style-type: none"> <li>• Soils that exceed RCRA or State Hazardous Waste levels (Category C) will be managed and disposed of as hazardous waste at a Class I landfill.</li> </ul>
<ul style="list-style-type: none"> <li>• Disturbed sites will be restored to original conditions, or as required to meet AFRPA property transfer objectives.</li> </ul>

**Table 1-3: Landfill Acceptance Criteria**

<p><b>Class I:</b> Class I sites are at the upper tier of landfills. Typically these sites have limited capacities and are the most costly to use. Class I sites are facilities that can accept hazardous wastes as well as municipal solid waste, construction debris, and yard waste.</p>
<p><b>Class II:</b> The next levels of landfill sites are Class II sites. Class II sites may receive certain designated waste along with municipal solid waste, construction debris, and yard waste.</p>
<p><b>Class III:</b> Class III sites are the most restrictive of the three-landfill classifications, with regard to the types of material that can be accepted. In general, Class III sites can only accept non-hazardous waste. These types of waste include solid waste, construction debris, wood and yard waste, and certain industrial waste that meet individual facility permit criteria.</p>

By agreement with the regulators, no soil can be transported off McClellan unless it is targeted for disposal at a permitted landfill. Landfills accepting contaminated soil from McClellan must be approved by U.S. EPA for accepting waste from a CERCLA site. Before any soil activity can occur at McClellan, everyone must go through the AFRPA Encroachment Permit process and all soils deposited on McClellan or transported off site, must be tracked with an approved McClellan Soils Dump Slip/Materials Disposition Permit. Whenever possible, return Category A and B soils to their original site(s).

The Clean Soils Holding Area (CSHA) is not subject to regulatory oversight, except that there is a prohibition against disposal of contaminated soil within its boundaries. Soils that contain debris are also prohibited. This manual contains procedures (Section 2.5.3) for determining when soil may be taken to the CSHA after receiving approval from the Soils Program Manager (SPM) or AFCEE Field Team Manager (FTM) and with an approved McClellan Soils Dump Slip/Materials Disposition Permit. To prevent the CSHA from rapidly filling with soil as a result of excavation associated with construction/maintenance and remedial activities, Category A excavated soil (concentrations of all contaminants below action levels) shall be replaced in excavations or otherwise left on-site whenever possible.

Excess Category B soil may be stored temporarily in the CERCLA contaminated soils holding area (CCSHA) after receiving approval from the SPM or FTM and with an approved McClellan Soils Dump Slip/Materials Disposition Permit. The Operation and Maintenance Plan governs operation of the CCSHA. The stored soil will typically be remediated as part of the full-scale site remediation process. Waste soil that is not amenable to future on-base remediation processes will be transported off base for treatment or disposal in a permitted landfill, as appropriate. Like the CSHA, the storage capacity at the CCSHA is always a concern. Soils that exceed RCRA or

## Section 1

State Hazardous Waste levels (Category C) will be managed and disposed of as hazardous waste at a Class I landfill.

### **1.4 AFRPA ORGANIZATIONAL STRUCTURE**

The BRAC Cleanup Team (BCT) managing the IRP is headed by an Air Force designated BRAC Environmental Coordinator (BEC) who is responsible for all environmental activities at McClellan. Remedial Project Managers (RPM) coordinate with the FTM and AFCEE Field Team to implement cleanup projects at the OUs and report to the BEC.

AFCEE Field Team staff members coordinate with the RPMs, LRA and MP during the siting, planning, and environmental assessment of maintenance activities, proposed property owner construction projects, and IRP assessment and remediation activities. The Field Team members monitor all related field activities and are tasked to ensure that field activities operate smoothly and are conducted in a manner protective of human health and the environment (*AFCEE Base Closure Restoration Division Field Engineer Manual*, September 1996).

## **2.0 CONSTRUCTION/MAINTENANCE PROJECTS**

As parcels of land are transferred from the Air Force for reuse, property owners may choose to engage in construction projects that involve soil disturbance. Infrastructure operation and maintenance (O&M) activities that also involve soil disturbance/excavation may be required to support business activities at McClellan.

### **2.1 NEED FOR COORDINATION**

Close coordination between AFRPA, construction companies and O&M companies is necessary to ensure that construction or O&M activities are compatible with any existing contamination and remediation activities. Without proper coordination, workers and the general public could be exposed to contaminants, projects could easily be delayed by environmental problems, and cost overruns may occur. In addition, the desirability of transferred land parcels could be reduced and construction activities may interfere with remediation efforts and activities planned under the IRP process. This section identifies the necessary coordination contacts and responsible parties for specific soils management actions.

Proper coordination will ensure that soils are excavated, stored, and/or disposed of in conformance with the procedures in this manual. Also, the health and safety of workers and the general public must be protected during soil disturbance/excavation. If procedures are ignored, workers can be endangered and the regulatory constraints can impede projects, generate fines and penalties, and greatly delay construction/maintenance, even after field activities have commenced.

The IRP process is aggressively moving toward a Record of Decision (ROD) for the sites in each specific parcel. The parcel-specific Feasibility Study/Proposed Plan (FS/PP) and ROD will describe in great detail the types of remedies (i.e. excavation, treatment, and containment) that will be necessary for the long-term disposition of contaminated soil at McClellan.

### **2.2 AFRPA COORDINATION GOALS**

New tenants or utility purveyors may not be interested in assuming the additional costs associated with construction on a contaminated site. The simplest option is to relocate a proposed construction project to avoid the disturbance of contaminated soil. This section establishes the procedures to minimize the chance of construction on a contaminated site, or to mitigate impact of construction on a contaminated site. If an alternate building site is not available, design modifications such as building orientation or vapor barriers on a site may be implemented to avoid or minimize exposure to contaminants. At the discretion of AFRPA, an expedited soil removal action may be performed at the proposed site. This section also specifies how contaminated soils are to be handled and establishes procedures to be followed when unexpected contamination is encountered in the field. The following subsections highlight where this coordination is essential to ensure that the “avoid, accommodate, and handle” hierarchy is implemented effectively.

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Any soil disturbance activity shall go through the AFRPA Encroachment/Work Clearance Permit Process as outlined in Figure 2.1. Additional instructions are also provided in Appendix C. AFRPA will review the proposed work and determine whether it is at an IRP site. If it is not at an IRP Site, the permit will be approved with or without conditions. If it is at an IRP site, AFRPA will determine if relocation is necessary. If the proposed activity must be relocated, the permit process must start over with the new location conditions. If relocation is not necessary, the work plan will be approved with or without conditions. The following activities can be used as checkpoints to ensure that appropriate coordination takes place as discussed in more detail in Section 2.3 Project Planning.

- Project Planning
  - Project conception – potential property developer approaches LRA and MP with proposal to lease property and perform construction
  - LRA and MP coordinate with AFRPA on facility siting with an Encroachment/Work Clearance Permit application
  - AFRPA issues an environmental clearance with an approved Encroachment/Work Clearance Permit
  - Developer proceeds with development plans
- Design activities
  - Surface soil sampling may be performed by the developer to verify absence of contamination
  - Project design is completed
  - Construction contracting occurs
- Field activities
  - Encroachment/Work Clearance Permit updates are obtained at least four (4) weeks prior to digging and are valid for 120 days
  - Underground Services Alert (USA) notification is made at least 48 hours prior to digging
  - Construction (generation of excess/waste soil)
  - Soils handling and disposal coordination with AFCEE Field Team.
  - All soils deposited on McClellan or transported off site, must be tracked with an approved McClellan Soils Dump Slip/Materials Disposition Permit.

Section 2

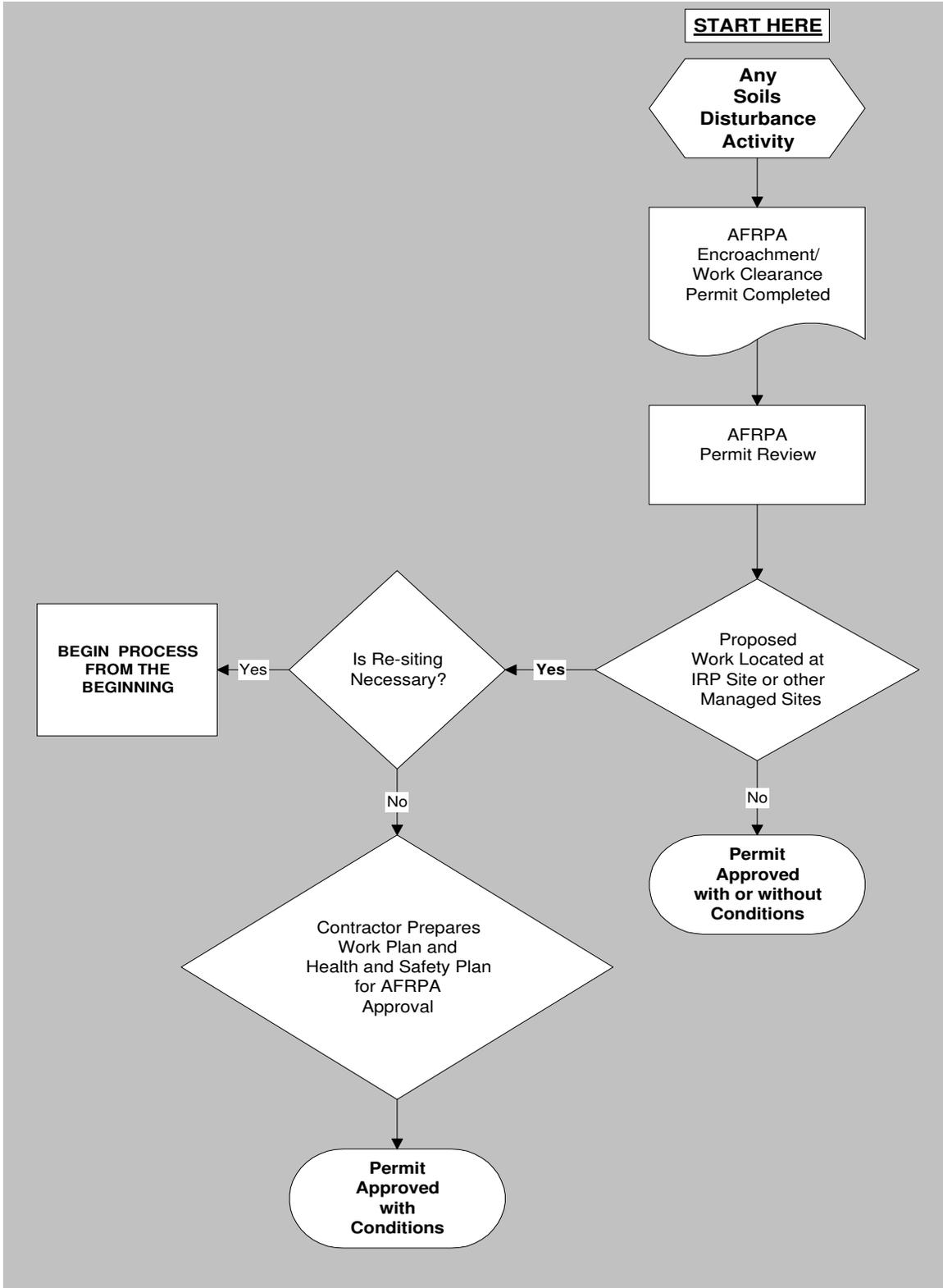


Figure 2-1: AFRPA Permitting Process for Soil Disturbance Activity

## **2.3 PROJECT PLANNING**

The following discussion only addresses the normal construction process. Deviations from the normal process can occur for emergency O&M projects (An example of a deviation from the normal construction process would be when an emergency event occurs such as a water main breaks or a breach in system integrity and/or breakdown or loss of control). While the following discussion does not address these emergency activities, an understanding of the normal process can help all parties involved appreciate the need for project coordination and the specific activities that need to be accomplished to ensure minimal negative impacts on the construction projects and IRP activities.

### **2.3.1 Project Conception**

All projects involving disturbance of soils, whether it be the LRA, MP, the AFRPA, a leaseholder, developer, local utility companies or any other entity, will require an AFRPA Encroachment/Work Clearance Permit (AFRPA Form 370 Appendix C). Submitted through LRA, MP, AFRPA or another tenant to AFRPA, this form initiates the process for all proposed new construction and O&M activities.

The procedure contained in Appendix C should be used when completing the AFRPA Encroachment/Work Clearance Permit as a guide to potential impacts on the proposed project that must be considered. AFRPA staff is available for assistance in completing the Encroachment/Work Clearance Permit Form. The POC List in Appendix D should be referenced to obtain a specific contact person's name and telephone number.

### **2.3.2 AFRPA Encroachment/Work Clearance Permit Reviews**

AFRPA will evaluate individual construction/maintenance requests for compatibility with IRP objectives. Using the AFRPA Encroachment/Work Clearance Permit form, AFRPA can make a preliminary determination on whether the project will encounter contaminated soil or be in an area of a known health risk.

Four actions can be taken by AFRPA during the work request review depending on the availability of environmental and project information and the environmental sensitivity of the project. They are:

- The project may be approved with or without conditions;
- The project may be approved with a Health and Safety Plan required (Health and Safety Plan must be signed by a Certified Health and Safety Professional);
  - When contaminant levels at the dig area are above action levels as defined in the Soils Classification Table.
  - When contamination is unknown or not clearly defined.
  - When soil gas levels are above Occupational Safety and Health Administration (OSHA) exposure limits.
- The project may be disapproved, and;
- AFRPA may perform the removal of suspected contaminated soil by contract.

Requests to perform routine maintenance at uncontaminated sites can be cleared for environmental compliance by AFRPA and can receive an expedited approval. For other projects, such as O&M or construction at contaminated sites, AFRPA RPMs cannot make determinations without further evaluation. For these projects, the BEC and the BCT will review additional information and a determination will be made whether or not the project can proceed and what conditions apply.

### **2.3.3 Facility Siting**

It is the general policy of AFRPA to not recommend construction projects on IRP sites that have not been remediated. It is always preferable to avoid siting new construction on a known IRP site because of risks to the workers' health and safety and the added costs of designing and implementing mitigation measures. Therefore, preliminary siting can be an iterative process of siting and re-siting to avoid known IRP sites or contaminated areas. Decisions to site on a known IRP site should only be made after full consideration of all associated costs for construction and remediation and consultation with the regulatory RPMs.

If the decision is made by LRA/MP to continue with a potential project in an area that will be affected by projected IRP activities, it is the AFRPA RPM's responsibility to inform the regulatory RPMs in the monthly activities report and to inform the SPM of the potential for new construction in a contaminated area.

The roles and responsibilities of the various entities involved in the facility siting are outlined below:

- LRA and MP and other tenants
  - Provide a preliminary siting plan for all proposed construction projects to AFRPA for review.
  - Site projects outside the IRP site boundaries whenever possible.
- AFRPA
  - Review the preliminary siting plan for proximity to IRP sites or health warning areas.
  - Notify LRA and MP of their findings.
  - Notify regulatory RPMs and the SPM if a decision is made to proceed with construction on a contaminated site.
  - Maintain current base wide maps of IRP sites and health warning areas, and provide the maps to LRA and MP.
  - Take appropriate corrective action at the site.

## **2.4 DESIGN ACTIVITIES**

### **2.4.1 Preconstruction/Planning Soil Sampling**

Soil sampling by AFRPA is generally restricted to IRP project sites. Soil sampling will not be done routinely for O&M projects. This restriction is necessary because it is cost-prohibitive for AFRPA to expend the resources necessary to field sample at all proposed sites for projects that involve soil disturbance. However, exceptions can be made on a case-by-case basis, provided the RPM and/or the SPM determine that sampling is required based on the following criteria:

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The quantity of soil to be excavated is significantly large (greater than 100 cubic yards)

- The proximity of the project to known contaminated areas (anything less than 100 cubic yards from analytical results indicating contamination or within 50 feet of a known contamination site.)
- The soil to be excavated was not adequately characterized during the Remedial Investigation/Feasibility Study (RI/FS)

The rationale for an exception must demonstrate, at a minimum, that at least one of these criteria is met. If large quantities of soil are to be excavated, especially if excess soil is generated that will require disposal in one of the soils holding areas, then AFRPA may justify the costs for preconstruction sampling. This is especially true if the construction site is located in an area that the RPM or SPM has determined to be a high-risk area for soil contamination.

Providing the rationale listed above exists, AFRPA may initiate preconstruction sampling for projects after review and approval of the permit package.

Under the scenario where justification does not exist for preconstruction sampling, sampling may be elected by the project proponent to satisfy lenders, insurance companies or other concerned stakeholders. When field sampling is to be performed, a formal Work Plan shall be developed by the contractor or his representative and submitted for AFRPA approval.

At a minimum, the Work Plan should specify sample collection of the type and quality consistent with the preliminary assessment information collected as part of the IRP. The Work Plan should contain a time line, including sampling, analysis, and data interpretation. A typical SAP is included in Appendix E.

The roles and responsibilities of the various entities involved in any preconstruction soil sampling are outlined below:

- LRA, MP and other tenants
  - Inform AFRPA when a proposed property owner construction design is received.
  - Request that AFRPA review the work plan for any proposed sampling.
  - Work with AFRPA to establish a schedule for any additional field sampling.
- RPM/SPM
  - Determine if sampling justification exists and conduct sampling if so.
  - If justification does not exist, but project proponent elects to perform sampling, review the Work Plan and provide comments back to the Project Proponent.
  - Ensure that sampling and analytical data are added to the Technical Information System (TIS) database.
- Project Proponent
  - Establish a schedule for project investigations and elective field sampling.
  - Forward sampling and analysis results to the AFRPA and regulatory RPM and the FTM.

## 2.4.2 Construction Contracting

Contractors virtually anywhere on McClellan may encounter contaminated soil during excavation. In recognition of this potential risk to public health and safety, the IAG requires AFRPA to notify all of the potentially affected public. Consequently, all AFRPA personnel and all contractors conducting excavation operations at McClellan must be made aware (by contract provisions for contractors) that work is being conducted within an NPL site, that there is a potential for encountering contamination, and the procedures for dealing with contamination if it is encountered. AFCEE contracting must ensure that all contracts include provisions that make contractors aware of McClellan's NPL status.

Special contract specifications are not required if construction occurs in an uncontaminated area except that all excess soil must be disposed of in the CSHA or other approved area.

Standard specification must be included as a contract specification if the construction includes below-grade work at a contaminated site or within an IRP site boundary. This specification requires that the contractor have at least all field person qualified to work with hazardous material in accordance with 29 Code of Federal Regulation (CFR) 1910.120. This will ensure the workers on site are trained to recognize contaminated soil by field observations (sight and smell) and who are cognizant of the potential risk to workers. The specification further requires that excavation shall cease and that the Contracting Officer shall be contacted immediately whenever contaminated soil is encountered in the field. It is the Contracting Officer's responsibility to ensure that these provisions are included in all appropriate contracts.

Additional contingencies may be appropriate for individual projects on a case-by-case basis. For instance, the contractor is required to provide an on-site certified Industrial Hygienist (IH) whenever excavation of contaminated soil is required. This can result in a significant cost increase and reinforces the need for front-end planning and incorporation of contract contingencies to deal with these situations. AFRPA can provide information concerning the likelihood of encountering contaminated soil and the range of possible consequences or mitigation measures. AFRPA should work closely with AFCEE whenever a contract is being written requiring excavation in a contaminated area or within an IRP site boundary.

The roles and responsibilities of the various entities involved in construction contracting are outlined below:

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- Contracting Service Center (AFCEE, Air Force Institute for Environmental and Occupational Health Risk Analysis (AFIERA), or as applicable)
  - Place standard language in all contracts that specify soils excavation (as required by the IAG) to notify the contractor that McClellan is an NPL site and that contaminated soil may be encountered.
  - Ensure that standard language is in all contracts involving soils excavation in contaminated areas requiring that workers performing excavation are certified to work with hazardous material in accordance with 29 CFR 1910.120.
- AFRPA
  - Provide information to LRA, MP or other tenants concerning the likelihood of encountering contamination at individual sites and the range of possible mitigation measures.
  - Help prepare and/or review contract language to notify the contractor that McClellan is an NPL site and contaminated soil may be encountered.
  - Provide training concerning contaminated soil recognition and notification procedures for all AFRPA personnel involved with field efforts requiring soil excavation.

### 2.5 FIELD ACTIVITIES

#### 2.5.1 Encroachment/Work Clearance Permit

An AFRPA Encroachment/Work Clearance Permit (AFRPA Form 370) (often referred to as a digging permit) must be completed before actual construction and/or soil disturbance activities may proceed. This form is designed to ensure that proper precautions have been incorporated into the construction plan before the contractor actually mobilizes onto the site. The AFRPA will use this permitting process as an opportunity to verify that the planned disturbance/excavation is either in an area of no known contamination or that proper excavation and human health protection provisions have been made. Projects within IRP sites require site-specific work plans. The work plan shall include a Health and Safety Plan (HSP) (Health and Safety Plan must be signed by a Certified Health and Safety Professional) to accompany the Encroachment Permit request. The AFCEE Field Team will be notified that fieldwork is about to commence and will be provided with the proposed start date. The time required for AFRPA to process a permit can vary between one to six weeks depending upon scope and project location. Projects within IRP sites require increased review of up to six weeks. Additional field sampling may be required for projects where site characterization sampling data is incomplete, has not been performed, or needs additional AFRPA review.

Field soil assessments will be made using field techniques that will identify the most severely contaminated areas and protect human health and the environment during the construction process. Field techniques for site screening include looking for discolored soil, detecting odors,

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or using field equipment such as an Organic Vapor Meter (OVM) for detection of volatile organics. A standard field screening procedure for Volatile Organic Compounds (VOCs) is presented in the Field Procedures Section of the most current McClellan Base wide Quality Assurance Project Plan (QAPP). No formal guidelines or threshold values are available for determining whether a site is significantly contaminated; however, the RICS tend to compare values against action level concentrations. Site data for each project must be addressed on a case-by-case basis.

Encroachment/Work Clearance Permits for routine maintenance activities, including self-help projects (e.g., setting fence posts, replacing valves), must be hand-carried when construction is only days or hours away. AFRPA will try to accommodate these requests; however, projects may be delayed while permits are being obtained. If time permits, the RPM, SPM, and/or a Field Team staff member will accompany the permittee for a site visit. It should be noted that these activities are disruptive to AFRPA staff and do not allow for advance information and precautions concerning contaminated soil. When these urgent requests occur, the cause for short notice should be identified so that corrective procedures can be considered.

New information concerning Areas of Concern (AOCs) may be generated as a result of ongoing IRP activities. Therefore, Encroachment/Work Clearance Permits are valid for 120 days or longer as approved by AFRPA. If the permit expires, the AFRPA RPM must be contacted for a renewal.

The roles and responsibilities of the various entities involved in Encroachment/Work Clearance Permits are outlined below:

- LRA, MP, other tenants or Requestor
  - Ensure that contractors submit Encroachment/Work Clearance Permits for sign-off at least four weeks prior to the anticipated disturbance/excavation.
  - Ensure that contractors obtain permit renewals as approved by AFRPA.
- AFRPA
  - Ensure that the proposed activity is consistent with previously reviewed work plans or design documents.
  - Notify the regulatory RPMs of the proposed disturbance excavation.
  - Provide site visits and field soil sampling assessments for projects that have not received any field investigation to this point.
  - Expedite Encroachment/Work Clearance Permit sign-off for emergency situations.
  - Perform field sampling.

### **2.5.2 Construction**

Obtaining an Encroachment/Work Clearance Permit will ensure that, before construction activities are initiated, all reasonable precautions have been taken to prevent the unanticipated excavation of contaminated soil. Projects where excavation of contaminated soil has been determined necessary will have the benefit of engineering and administrative precautions built

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into the project. Additionally, the health and safety of the workers are ensured by Hazardous Waste Operations and Emergency Response (HAZWOPER) qualified training whenever contaminated soil disturbance activities are underway.

Encountering unanticipated soil contamination is more likely during short-term minor O&M projects that have not had the benefit of any site investigation prior to initiating the soil disturbance activity. However, contamination can also be encountered during a developer construction project that has had an extensive site investigation, even if it is being constructed in an area where no contamination is suspected. Regardless of the level of previous investigation, encountering contamination has the same effect on all projects, and all occurrences of unanticipated contamination are handled in essentially the same manner. Projects are stopped temporarily, which usually results in construction delays and additional costs. AFRPA has established procedures to minimize the impact of encountering unanticipated soil contamination and to mitigate it as expeditiously as possible. These procedures are depicted in Figure 2-2 and are described in the following paragraphs.

Construction and O&M activities should immediately cease upon the discovery of potentially contaminated soil (as indicated by discolored soil or odors) in the area. The FTM and/or the SPM must be notified. The Field Team member or Soils Program Manager will then inform the AFCEE Contracting Officer's Representative (COR) of the discovery. The Contract Project Manager will coordinate with the SPM and FTM to make a joint site visit.

The FTM or his/her agent will perform a visual examination and determine whether the soil is contaminated. If no contamination is detected, the work may proceed. If potential contamination is detected, the site should be further assessed to determine whether the contamination poses a threat to the workers' health and/or safety. If no significant health or safety threat exists, construction can proceed; however, the Contract Project Manager may be advised that a certified IH should be present to monitor the excavation.

Additionally, if it is determined that the health and/or safety of the workers may be compromised, the excavation must be performed by a contractor who has had hazardous materials training (as specified in 29 CFR 1910.120) and must be supervised by a certified IH. The Project Manager, AFCEE, and Contracting Officer will be notified of the findings and will be responsible for ensuring that work in the contaminated area is not resumed until the contamination is removed or isolated from the construction area.

The FTM or his/her agent will make a determination of whether the contamination is localized, can be readily handled within AFRPA regulatory agreements, and is of sufficient extent to warrant regulatory involvement before its disposition is determined. In most instances, only small quantities of contaminated soil are involved and project delays can be minimized. In these cases, coordination with the regulators is not necessary before excavation, and the suspected contaminated soil can be handled immediately. The FTM or his/her agent can make arrangements with an AFRPA contractor that is qualified to handle contaminated soil to complete the excavation of the contaminated soil and replace the excavated soil after the work is complete. After AFRPA determines that the site no longer poses a significant health threat, construction within the area can resume.

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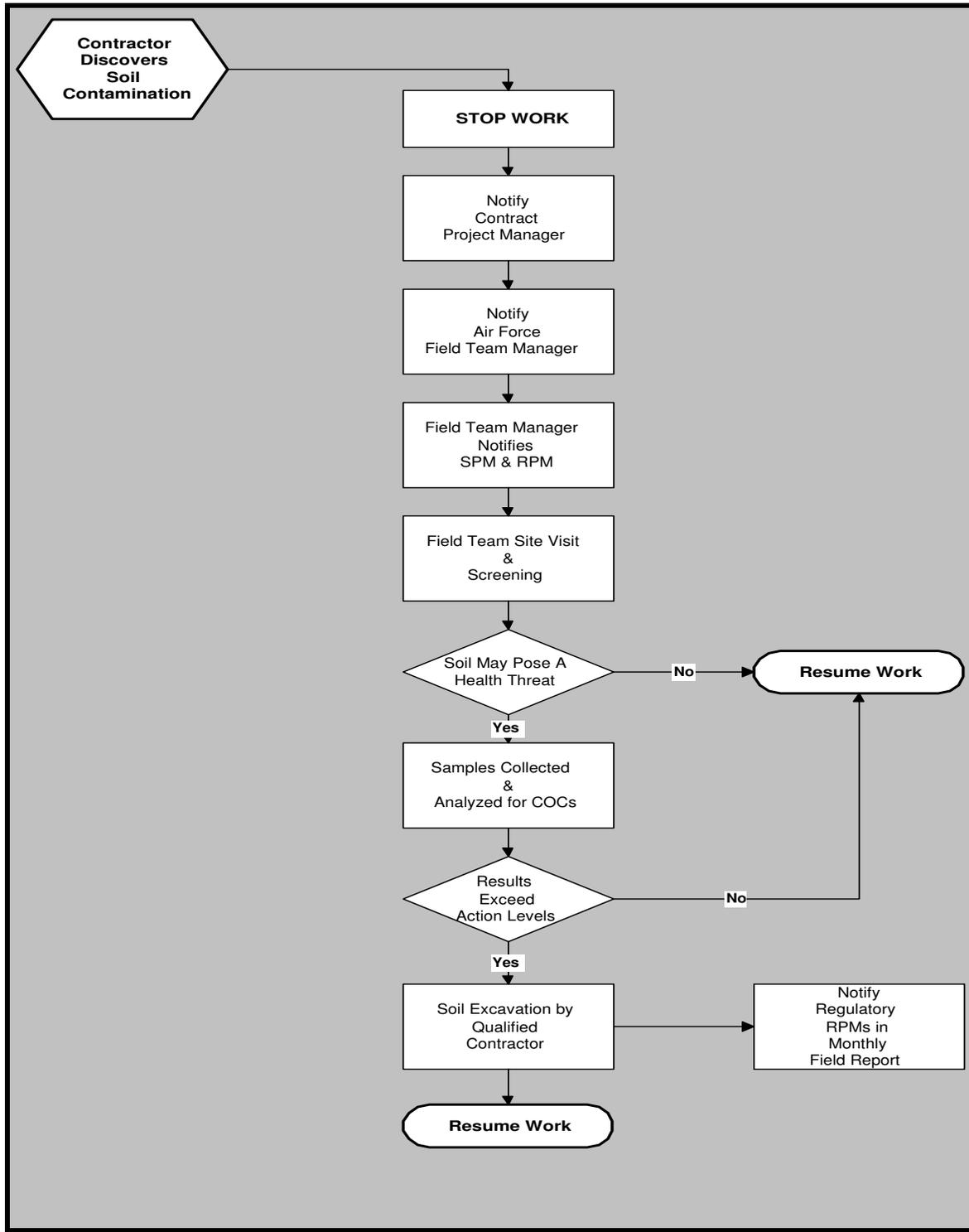


Figure 2-2: Procedure When Soil Contamination is discovered on Encroachment Permit Approved Work

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If a construction site becomes an AOC due to the volume or nature of the contamination, the project will be delayed until the BCT can be notified. In practice, the threshold for regulatory involvement is approximately 50 cubic yards. In addition to the soil volume, the concentration and location of contamination will affect the decision to notify the regulators. Procedures for handling large quantities of contaminated soil can vary dramatically, depending on the extent, type, and concentration of contaminants, and must be decided on a case-by-case basis. Lengthy delays in construction can occur, and in extreme cases, the project may have to be modified to accommodate the contamination.

The roles and responsibilities of the various entities involved in construction are outlined below:

- Contractor
  - Notify a Field Team member and the Contract Project Manager if contaminated soil is encountered.
  - Stop work in the excavation area immediately.
  
- AFRPA
  - Respond to reports of contaminated soil.
  - Perform visual and odor assessment of suspect soil.
  - Notify the Contract Project Manager and AFCEE of the determination.
  - Work with Contract Project Manager and AFCEE to determine the best way to handle the contaminated soils.
  - Coordinate with the SPM, AFCEE, and the Contracting Officer to ensure that excavation of contaminated soil is done in a manner that protects worker health and safety and complies with regulatory agreements.
  - Monitor the excavation of contaminated soil.
  - Include a description of contaminated soils in the monthly soils report prepared for the regulatory RPMs.

### 2.5.3 Soils Handling

By agreement with the regulatory agencies, no soil is allowed to leave McClellan unless it is targeted for disposal at an EPA approved landfill. To implement this agreement, AFRPA has established standard procedures for handling excavated soil. These procedures are depicted in Figures 2-3 and 2-4, and are described in the following paragraphs.

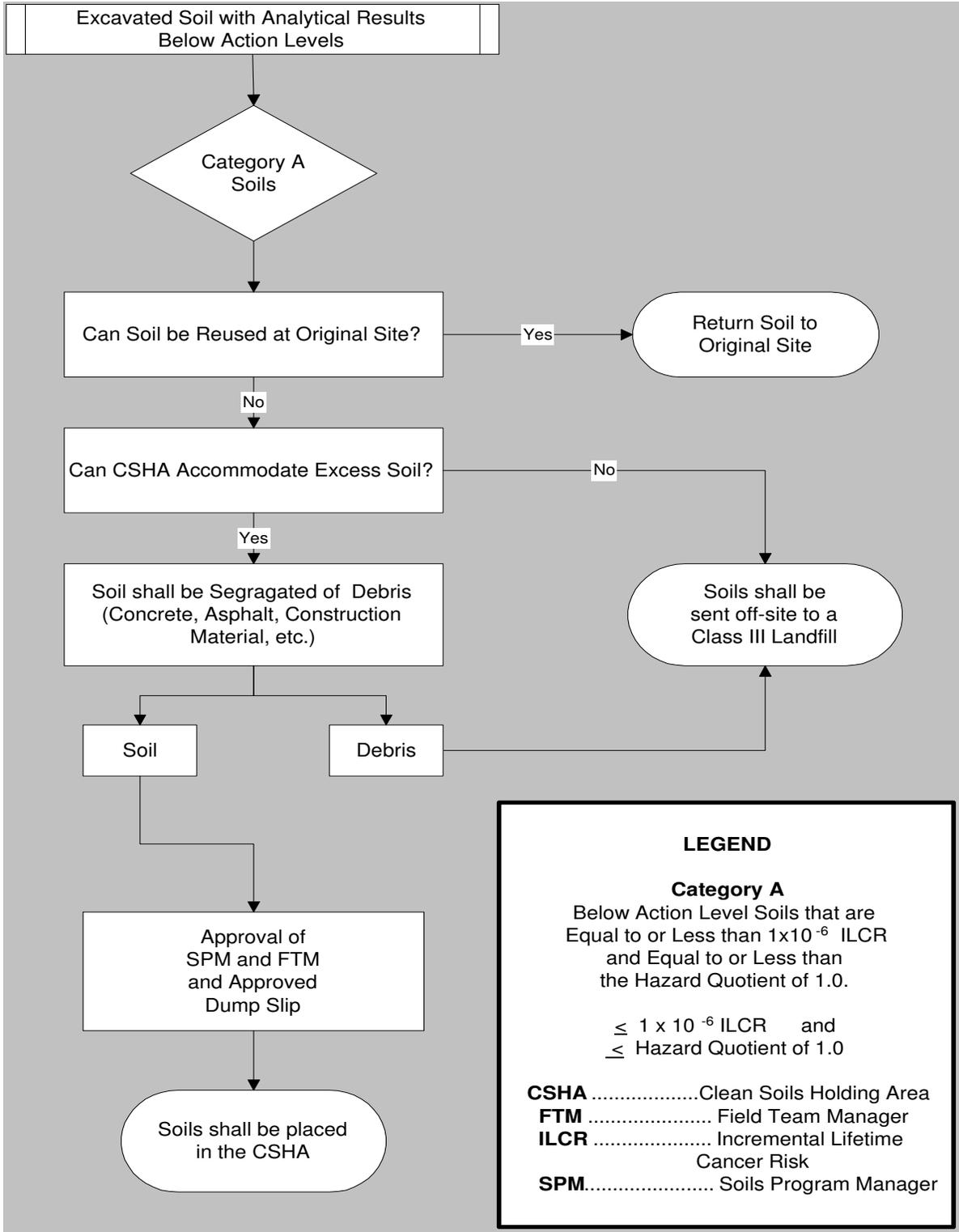
All stockpiled soil shall be protected from rain and runoff to prevent entry into creeks, storm drains, and natural resources including wetlands such as vernal pools.

Soil with all concentrations below action levels (Figure 2-3) shall remain at the original site whenever possible. Excess Category A Soil that is free of debris shall be placed in the CSHA after receiving approval from the SPM or FTM, and with approved McClellan Soils Dump Slip/Materials Disposition Permit. If possible, soil containing debris shall be segregated and shall be disposed of at an appropriate landfill and the remaining debris-free soil shall go to the CSHA. Care must be taken to ensure that soils going to the CSHA are free of contaminants and extraneous material.

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Soils with any contaminants at concentrations above action levels (Figure 2-4, Category B) that do not exceed hazardous waste criteria shall be returned to the original site if the soils can be reused at that site. If the soils cannot be reused and CCSHA can accommodate excess soils, the soils shall then be placed in the CCSHA upon approval from SPM and documented by Hazardous Waste Project Manager (HWPM)/FTM and with approved McClellan Soils Dump Slip/Materials Disposition Permit. If CCSHA cannot accommodate excess soils, the soils shall be sent off-site to a Class II Landfill approved by U.S. EPA to receive CERCLA waste. Soils that exceed RCRA and State Hazardous Waste Criteria are 'Category C' Soils and shall be sent off-site to a Class I Landfill approved by U.S. EPA to receive CERCLA waste.

The initial determination regarding soil contamination shall be based on the RICS documents unless there is evidence during excavation of an immediate threat to health or the environment.



**Figure 2-3: Category A Excavated Soils with Analytical Results Below Action Levels**

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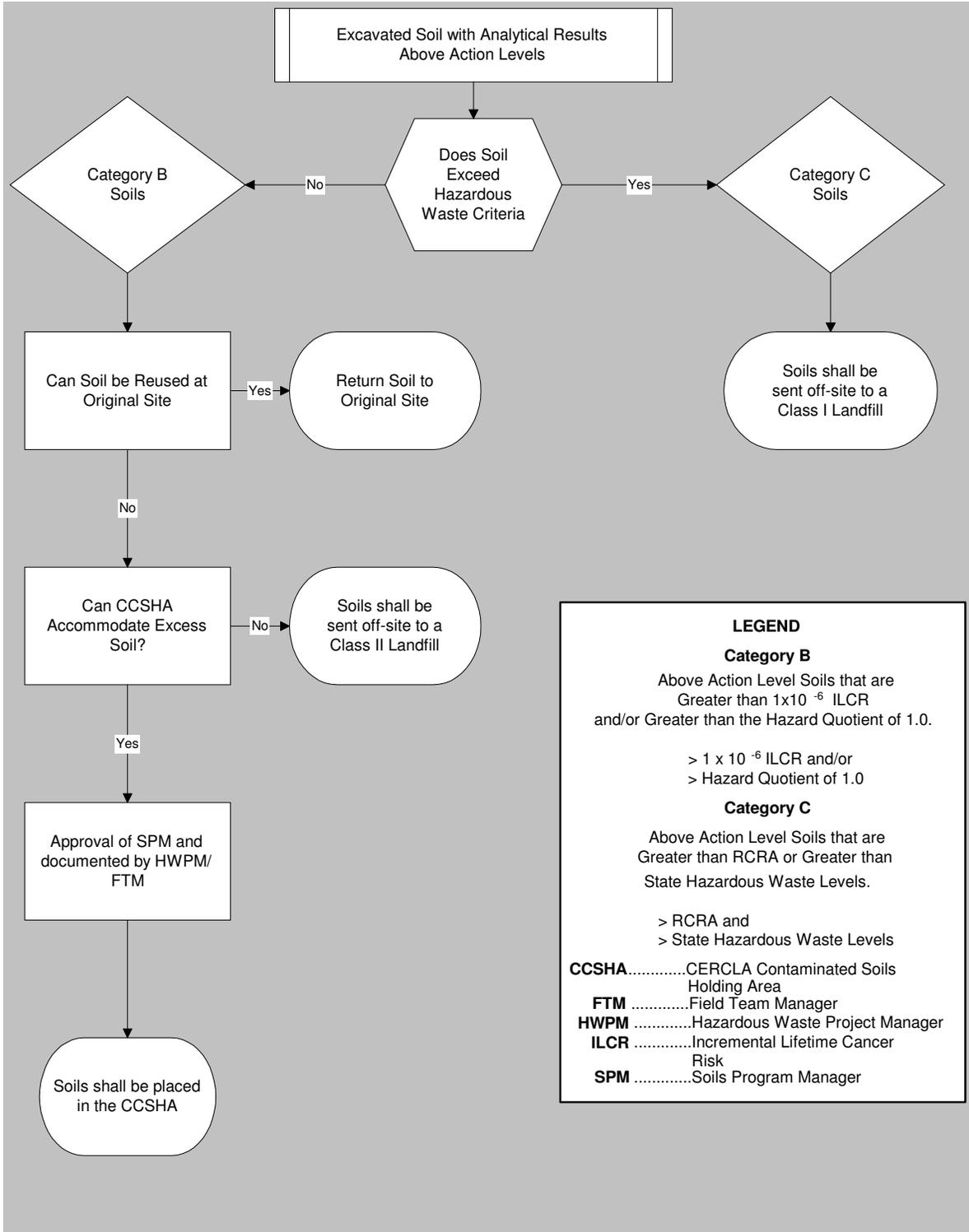


Figure 2-4: Category B and C Excavated Soils with Analytical Results Above Action Levels

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It is the Contract Project Manager's responsibility to ensure that contractors are aware of the Soil Management policies. Soil with no contamination concentrations above action levels should be left on the construction site whenever possible to minimize the loading on the CSHA. Excess soil generated at construction sites that are not within known IRP site boundaries should be presumed below action levels unless information to the contrary is available. However, anytime soils are coming from a site where pavement, asphalt concrete, or other areas where grease, oils, lubricants may have been present, soils should be tested to determine that they are free from Total Petroleum Hydrocarbons (TPH). Contractors should submit a sampling plan and have their plan approved before proceeding. Tests must assure that soils from these sites are free of TPH and debris before placement in the CSHA.

Federal and state laws govern the fate of soils within known IRP site boundaries. For the purposes of the IRP process at McClellan, the known IRP sites are determined to be areas of potential contamination such as PRLs, SAs, or AOCs. Available regulatory guidance on soils handling allows the soil to be left at an AOC, even if the soil is contaminated, provided that the site's condition is no worse than prior to the excavation. For the purposes of construction activities at McClellan, all soils that fall below federal and state regulatory thresholds for a characteristic hazardous waste should be left on-site whenever possible. Soils should be replaced in the excavation or spread out on-site. Excess contaminated soils that meet or exceed the threshold values of a characteristic hazardous waste are presumed to pose an immediate threat to human health and the environment. Removal Action(s) (RA) for such soils shall be determined by the BCT. These soils may be removed from the base and disposed of at an EPA approved landfill.

If soil to be excavated is suspected to pose an immediate threat to human health and the environment, BCT approval is required before the excavation can occur. The excavation will most likely occur as a CERCLA removal action (following the CERCLA process) approved by the BCT regulators if the project is deemed to be necessary or time critical. If removal actions are approved, it is the FTM's or his/her agent's oversight responsibility to periodically visit soil-generating sites to ensure that soil is placed in proper containers and managed correctly for disposal. All containers shall be labeled with the IRP site number. Suspect soil may be stored on site pending a determination. Such soil shall not be stored on the construction site for more than 30 days unless a CERCLA removal action has been approved by the BCT. It shall be stored in a container that has been approved by the FTM or his/her agent and sized according to the quantity of soil generated. For large volumes, 20-cubic-yard bins that may be winched onto a truck and transported for treatment and/or disposal are often used. For smaller volumes, open top steel containers with lids, rings and bolts are typical. Container size is discretionary; however, all must be proper United Nations (UN) rated containers as designated in 49 CFR 72.101. Local vendors provide UN designated drums in a variety of sizes.

Hazardous Waste Characterization is a coordinated effort between the RPM, the SPM and the Hazardous Waste Project Manager (HWPM). To determine whether the soil is a characteristic hazardous waste, the SPM compares the results of chemical analyses to the requirements for a characteristic waste found in the California Code of Regulations, Title 22, Division 4, Chapter 11, Article 3, "Characteristics of Hazardous Waste," beginning at Section 66261.20. This

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includes the total threshold limit concentration and Soluble Threshold Limit Concentration (STLC) values found in Section 66261.24. When comparing total metal concentrations to the STLCs, the total metal concentrations must be divided by ten to compensate for dilution factors inherent in the Waste Extraction Test (WET). In the majority of cases, excavated soil will not exceed the thresholds for a characteristic hazardous waste. Soil that does exceed the thresholds for a hazardous waste must be removed from the site and disposed of in an off-base hazardous waste disposal facility. The SPM must coordinate with an AFRPA employee designated by the BEC as certified to sign hazardous waste transportation manifests. A hazardous waste manifest must be completed before the soil is transported to a hazardous waste disposal facility.

If the volume of soil generated by excavation within the known IRP site boundaries is excessive and cannot be replaced in the open excavation or left on site, the SPM must determine whether the soil is contaminated. If the SPM suspects contamination, the soil must be sampled for chemical analysis, and the contractor must be instructed to containerize the soil, label the container properly, transport it to the CCSHA and/or off-site as a RCRA waste. Alternatively, if space is available, the soil can be left on site until final disposition is determined. Sampling is important to ensure that the CSHA does not become contaminated. When the sample analysis results are available, the final disposition of the soil should be determined, and the soil should be redirected to the appropriate storage area. Labeling requirements described in the section on RI/FS activities should be observed. Notice of the activity should be included in the monthly soils handling status report given to the regulatory RPMs.

The roles and responsibilities of the various entities involved in soils handling are outlined below:

- Contractors/AFRPA employees
  - Coordinate with the FTM or his/her agent whenever soil is taken to the CSHA or the CCSHA.
  - Leave as much soil on site as is practicable.
  - Ensure all soils deposited on McClellan or transported off site, are tracked with an approved McClellan Soils Dump Slip/Materials Disposition Permit
- LRA, MP, or other tenants
  - Ensure contractors involved with soils excavation are aware of the soils handling policies.
- FTM/SPM
  - Coordinate the disposition of excess soil with contractors.
  - Sample and make arrangements for analysis of excess soil generated at known IRP sites.
  - Compare the results of any field sampling in the area of excavation to ensure that soil left on site at known IRP sites does not exceed the thresholds for a characteristic hazardous waste.
  - Inform contractor of soils handling policies.

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- AFRPA Project Manager
  - Ensure that soil is placed in proper containers and removed from the site within the 30-day limit unless an extension is required due to sampling result delays.

## **3.0 INVESTIGATION-DERIVED MATERIAL (IDM)**

### **3.1 BACKGROUND**

Many IRP sites at McClellan are still in a study phase referred to as the Remedial Investigation/Feasibility Study (RI/FS) phase. In this phase, the sites are being sampled to determine the nature and extent of contamination and the best course of action for remediation. Soil samples are taken near the surface and at depth and are either analyzed by an on-site laboratory (OSL) or are sent to an off-base laboratory for analysis. As part of these activities, waste Investigation Derived-Material (IDM) is generated that could be contaminated.

Waste IDM is generated at McClellan during base wide CERCLA activities in several ways, including, but not limited to:

- Core Boring Samples and Drill Cuttings
- Waste Personal Protective Equipment (PPE) and Decontamination Materials
- Samples from OSLs
- Trench samples from Site Investigations
- Soil Samples from Underground Storage Tank (UST) removals
- Soil Samples for Technology Demonstration Bench Scale and Prototype Testing

IDM samples are taken throughout the various CERCLA activities in order to characterize contaminants in soils. These IDM samples may ultimately require landfill disposal or some type of treatment. The entire IDM sample or portions of it may be contaminated. IDM soil batches may be segregated based on contaminant level thereby avoiding disposal of soils below action levels.

Samples shall be taken from suspect IDM soils for analysis. These samples shall be analyzed either in an OSL or off-site lab for specified COCs. After analysis, the IDM samples may be stored on site until the data summaries can be reviewed and validated. However, in the interest of expediting the IDM removal, the material should not be stored for more than 30 days without approval from the FTM. In the event the recommended 30-day time limit is not achievable, the generator will provide the FTM with the reason for the delay and what the revised schedule for IDM removal will be.

The labeling, tracking, management and storage of IDM and the responsibilities of the generating and management authorities are discussed below.

### **3.2 GENERAL LABELING AND TRACKING**

As a result of the RI/FS efforts at McClellan, significant quantities of IDM are generated. To facilitate IDM management, a common labeling and inventory system has been developed. Appendix A contains a Materials Information Label (MIL) used to label IDM and completion instructions. A MIL shall be attached to all containerized IDM generated as part of an RI/FS activity whether it is left on site or moved to the CCSHA. Additionally, to aid in management of

the CCSHA, contractors shall provide an inventory of IDMs generated during a particular site activity. Appendix B contains an AFRPA inventory Materials Information Sheet (MIS) and Completion instructions. A MIS shall be completed and supplied to the FTM on a weekly basis during field activities. The MIS is used by AFRPA staff to update a database for tracking base-wide contaminated IDM generation.

### **3.3 IDM Management**

#### **3.3.1 IDM Samples**

The IDM samples should be comprised of soil only, not foreign debris. When the IDM samples are no longer needed, the RPM and contractor will characterize the IDM and work with the FTM to make arrangements for their appropriate deposition. The RPM shall review the data summaries and inform the contractor which samples contain COC contaminants above action level concentrations (Category B or C). Spent IDM samples and excess IDMs that do not contain contaminants above action level concentrations (Category A), will be transported to the CSHA or to a Class III Landfill.

Category B soil sections with contaminant concentrations that exceed action level concentrations, (Soils that are greater than  $1 \times 10^{-6}$  Incremental Lifetime Cancer Risk (ILCR) and/or greater than the hazard quotient of 1.0) shall be containerized in a manner consistent with the requirements specified in this manual or moved to the CCSHA to await transport and appropriate disposal at a Class II Landfill facility. Category C soil sections that exceed the criteria for a characteristic hazardous waste (Soils that are greater than RCRA or State Hazardous Waste Levels) shall be disposed of off-site as hazardous waste in a Class I Landfill.

#### **3.3.2 Segregation**

Handling, storing, and disposing of contaminated IDM is very costly. Contaminated and IDMs below action levels should be segregated in the field whenever possible. To facilitate characterization and handling, the IDM shall be segregated by origin to avoid cross-contamination when contaminant profiles are unknown. However, segregation of the IDM is not necessary if it is predetermined that the IDM will have a consistent contaminant profile. Additionally, attempts should be made when feasible to segregate IDM below action levels from contaminated IDM or soil with discoloration from metals. Samples should be taken to characterize the containerized IDM if no other appropriate IDM sampling has been performed (e.g., only soil gas). At a minimum, material should be segregated by depth increment or origin.

#### **3.3.3 Containerization**

IDM may be placed in an appropriate container (e.g., 55-gallon drum or other UN designated container) provided by the contractor and handled as a hazardous waste. IDM samples shall be stored in a dry, sheltered location at McClellan. The containers shall be constructed so that the IDM samples can be arranged according to depth, borehole or other origin. It should be presumed that all IDM are contaminated, and they should be stored in a container supplied by the contractor and approved by the AFRPA RPM in coordination with the FTM until the analytical results to characterize the IDM are returned from the laboratory. For large volumes, 20-cubic-yard bins that can be winched onto a truck and transported for treatment and/or disposal are often

used. Open top steel containers with lids, rings and bolts are typical for smaller volumes. Container size is discretionary; however, all shall be proper UN-rated containers as designated in 49 CFR 72.101. Local vendors provide UN-designated drums in a variety of sizes.

### 3.3.4 Storage

No contaminated or indeterminate IDM shall be stored **on site** for more than 30 days without approval from the FTM. In the event the recommended 30-day time limit is not achievable, the generator will provide the FTM with the reason for the delay and what the revised schedule for IDM removal will be. The RPM should coordinate with the FTM to ensure that provisions are made in the CCSHA to receive and temporarily store the IDM until their final disposition is determined. An estimate of the number of drums and contaminant content should be supplied to the FTM.

The contractor shall contact the FTM on a periodic basis, depending on the quantity of IDM accumulated, to make arrangements for disposal of the containerized IDM. However, **no container** shall remain on site for more than 90 days from the time the first contaminated IDM is placed in it. Any contractor operating an OSL is responsible for disposing of all contaminated waste IDM as hazardous waste.

If a temporary accumulation area is used, the area should be kept secure (fenced or enclosed with flagging) and should be maintained in a neat and orderly fashion.

### 3.3.5 Contract Language

The AFRPA RPMs, in coordination with the FTM and Contracting Officer, shall develop contract language requiring proper containment and storage of IDM. Specific items to be noted in the containment and storage of contaminated IDM are presented below:

- The containers should contain only IDMs. Grout and other debris shall be segregated and disposed of as solid waste. Rinse water should not be stored with the IDMs, but should be discharged into the CERCLA wastewater treatment or sanitary sewer pipeline upon review and approval by the HWPM.
- Whenever possible, the exterior of the containers should be kept clean and/or rinsed at the disturbance site prior to storage.
- Whenever possible, reconditioned drums should be used in order to minimize container costs. Reconditioned drums shall meet the requirements of 49 CFR 173.28.
- Each container should be free of dents, cracks, holes, or any other deficiency that may cause the integrity of the container to be questioned.
- Drums should be stored on pallets strong enough to support the weight of several full drums without breaking or deteriorating. Typically, three 55-gallon drums or four 20-gallon drums are stored on one pallet. When full, the 55-gallon drums weigh between 800 and 1,000 pounds each, depending on IDM type.

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- Lids on the drums should be secure, and the securing band should be tightened with the lock nut against the threaded portion of the band. The band should be installed in the downward position (i.e., the fastening device should not be protruding up since this creates a safety hazard).

### 3.3.6 Transportation

Transport shall be coordinated with the FTM who will make arrangements for transportation or direct the contractor to transport the IDM. Final disposition of the containerized IDM will be determined by the SPM upon receipt of results of the sample analysis performed as part of the RI/FS or analyses taken specifically to characterize the cuttings. IDM below action levels should be left on site (or returned to the site if it has been removed for storage while awaiting the return of analytical data) whenever possible. If it cannot be left on site, the RPM shall make arrangements with the FTM to transfer the IDM to the CSHA. IDM that exceeds characteristic hazardous waste threshold levels shall be treated or disposed of as a hazardous waste (Section 2.5.3). The FTM shall coordinate with the RPM to complete a hazardous waste manifest before the IDM is exported to a hazardous waste disposal facility. Non-hazardous IDM that contains contaminants in excess of action levels concentrations shall be left on site unless the RPM determines that it will compromise further site investigations. If the RPM determines that the IDM cannot be left on site, it shall be removed to the CCSHA after coordination with the FTM. Results from the analysis should also be used to further specify the container contents on the MILs for the remaining IDM.

### 3.3.7 Labeling

Prior to placing IDM into an appropriate container, the Contractor shall place an MIL on the container. The containers should be marked with an MIL label and a Hazardous Waste Label (HWL), if applicable. An example of the MIL, HWL and completion instructions are provided in Appendix A. The contractor shall label the containers encasing the IDM samples according to site location, boring number, depth increment, date drilled and/or other descriptive data. The label provides each IDM sample with a unique code that denotes where and when it was obtained and a container number for inventory purposes. The code on the container shall allow it to be cross-referenced to the analytical data from the analyses performed on the IDM samples taken from the IDM. The code can be generated using the instructions for completing the MIS (Appendix B).

The contractor shall provide the FTM with a weekly inventory of the stored, containerized IDM. The FTM will then provide a copy of the list to the RPM. The inventory should consist of the information on the MIL and MIS. A copy of the information sheet and completion instructions is provided in Appendix B. An inventory number shall be assigned to the container.

The contents of each container should correspond to the label listed on each container. If the material is from an OSL, the container MIL shall be marked with "IDMs from on-site lab", and it shall include the type of analysis that was conducted on the IDM. The contractor shall include

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this information on the MIS and submit the MIS to the FTM so that the McClellan IDM inventory database can be updated when the container is filled, starting the 90 days of allowed storage before disposal.

The inventory list should be checked by the FTM to ensure that the information is a true and correct representation of what is actually stored. Any temporary IDM accumulation areas should be inspected once a week by the Field Team staff for order, cleanliness, and security and to ensure that the above requirements are met. All discovered discrepancies must be documented. The Contractor will be notified verbally and in writing and any discrepancy shall be corrected immediately. A Field Team staff member will also make a weekly check of all field laboratories to ensure that all waste, including contaminated IDM, is placed properly in labeled containers. Any deviations will be reported immediately to the AFCEE COR.

### 3.4 Roles and Responsibilities

The roles and responsibilities of the various entities involved in IDM sample labeling are outlined below:

- **Contractor**
  - Screen and segregate IDM samples to avoid possible cross-contamination of IDM that is below action levels.
  - Place all archived IDM in containers specified by the RPM or FTM.
  - Provide IDM containers, place all IDM in the containers and provide FTM with a detailed inventory and accounting of the IDM containers.
  - Supply container labels to OSLs.
  - Place an MIL on any container that holds contaminated IDM.
  - Place a HWL on any container that holds hazardous waste.
  - Store spent IDM samples (after analysis) and any excess IDMs from the samples on site until the data summaries can be reviewed and characterized by the RPM.
  - Provide a weekly inventory of stored IDM to the FTM.
  - Dispose of all contaminated IDM within 90 days.
  
- **AFRPA RPM**
  - Characterize IDM for disposal when no longer needed. Ensure FTM is informed and characterization is performed on IDM for disposal.
  - Coordinate with the FTM to make arrangements for IDM disposal.
  - Coordinate with the FTM to insure that the 30-day storage is not exceeded.
  - Determine, on a case-by-case basis, whether IDM can be disposed of on site.
  - Develop, in coordination with the FTM and AFCEE COR, contract language requiring proper containment and storage of IDM, any deviation to be reported to the AFCEE COR.
  - Review the data summaries to determine whether the samples exhibited contaminant concentrations exceeding action levels values.

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- Inform the contractor as to which samples are above action levels.
- Arrange with FTM to determine if it can be transferred to CCSHA.
- **FTM**
  - Coordinate the disposal of IDM with the contractors and RPMs.
  - Include IDM management activities in the monthly Field Status Report, which may be submitted to the regulatory RPMs.
  - Coordinate the disposal of IDM that is below action levels into the CSHA.
  - Approve IDM containers, in conjunction with the RPM, for the storage of IDM.
  - Periodically check the weekly inventory of stored IDM and provide a copy to the AFRPA RPM.
  - Coordinate disposal of all IDM that is characterized as a hazardous waste with the HWPM.
  - Coordinate with the AFRPA RPM to insure that the 30-day storage is not exceeded.
  - Coordinate with the AFRPA RPM to complete the Hazardous Waste Manifest.
  - Coordinate with the AFRPA RPM and AFCEE COR, contract language requiring proper containment and storage of IDMs.
- **Field Team**
  - Make site visits to ensure that IDM containers are properly labeled and stored in field and in on-site lab.
  - Make site visits to ensure that IDM containers are properly inventoried and accounted for.
  - Make periodic inspections of temporary IDM Accumulator Area for cleanliness and security.
- **AFCEE COR**
  - Ensure that language requiring the proper containment, labeling, storage and disposal of generated IDM is placed in all soil disturbance contracts.
- **HWPM**
  - Ensure that no Hazardous Waste containers remain on site more than 90 days.
  - Review and approve Hazardous Waste Analyses.

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- **SPM**

- Determine final disposition upon receipt of the sample analysis if it cannot be left on site, RPM will arrange with FTM to determine if it can be transferred to CCSHA.

**Final Note:**

An identified AFRPA Staff member who has been trained and certified will sign the Manifest.

**4.0 APPENDIX A -  
MATERIALS INFORMATION LABEL AND  
HAZARDOUS WASTE LABEL**

## 4.1

### **Materials Information Label (CERCLA & RCRA) and Instructions**

#### **Materials Information Label and Instructions**

The following are instructions to complete the Materials Information Label (MIL). The items are presented in a sequential fashion as they appear on the label. Use the information from the Materials Information Sheet (Appendix B) for guidance on specific topics when completing this label.

#### **Drum/Bin ID Number**

Enter the Drum/Bin Identification Number.

#### **Contractor's Name**

Enter the name of the prime contractor conducting the field effort. Do not list subcontractors.

#### **Date of Containerization**

Enter the date the sample was drilled and/or the date the material was containerized.

#### **Contents**

Enter what is stored in the container (e.g., drill cuttings).

#### **POC (Point of Contact) for Content Information**

Enter the office symbol of the Air Force division supervising the field activities.

#### **General Site Location**

Enter a building number, street/cross street name, or other physical landmarks. Indicate which side or corner of the landmark the site is located.

Example: SW corner B655 (southwest corner of building 655)

#### **Operable Unit**

Enter the OU in which the field activities were conducted.

#### **IRP Site Code**

Enter the IRP Site Code as depicted in line one of this label (e.g., IC, PL).

#### **Boring Number**

Enter the boring number using the Boring Designator as depicted in line one of this label (B\_\_\_, H\_\_\_)

#### **Depth of Boring**

Enter the depth increment of the cuttings placed in the container.

Appendix A

**Table 4-1: Material Information Label**

<b>DRUM/BIN ID NUMBER</b>	
<b>CONTRACTOR'S NAME</b>	
<b>DATE OF CONTAINERIZATION</b>	
<b>CONTENTS</b>	
<b>POC FOR CONTENT INFORMATION</b>	
<b>GENERAL SITE LOCATION</b>	
<b>OPERABLE UNIT</b>	
<b>IRP SITE CODE</b>	
<b>BORING NUMBER</b>	
<b>DEPTH OF BORING</b>	
<b>AFRPA ENVIRONMENTAL MANAGEMENT OPERATIONS &amp; MAINTENANCE (916) 643-0830</b>	
<b>AFRPA Form 365, March 2003</b>	

**HAZARDOUS WASTE**

FEDERAL LAW PROHIBITS IMPROPER DISPOSAL.  
IF FOUND, CONTACT THE NEAREST POLICE OR PUBLIC SAFETY  
AUTHORITY OR THE U.S. ENVIRONMENTAL PROTECTION AGENCY.

GENERATOR INFORMATION:  
NAME \_\_\_\_\_  
ADDRESS \_\_\_\_\_ PHONE \_\_\_\_\_  
CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_  
EPA ID NO. / MANIFEST DOCUMENT NO. \_\_\_\_\_ / \_\_\_\_\_  
ACCUMULATION START DATE \_\_\_\_\_ EPA WASTE NO. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

D.O.T. PROPER SHIPPING NAME AND UN OR NA NO. WITH PREFIX

**HANDLE WITH CARE!**

STYLE WMS

Printed by Labelmaster, An American Labelmark Co., Chicago, IL 60646 (903) 621-5905

**Figure 4-1: Hazardous Waste Label**

## 4.2 Hazardous Waste Label Instructions

1. EPA ID NO. - The Contractor/Generator to obtain the EPA ID NO. from either DTSC or EPA, Region 9, depending on the type and quantity of waste generated.
2. MANIFEST DOCUMENT NO. - The Contractor/Generator to obtain the Document Number from the Uniform Hazardous Waste Manifest Block A.
3. ACCUMULATION START DATE - The Date that the waste is first placed inside the container.
4. EPA WASTE NO. - To be obtained from Title 40 CFR 261.20.
5. DOT SHIPPING NAME - To be obtained from Title 49 CFR 172.101.

**5.0 APPENDIX B -  
MATERIALS INFORMATION SHEET**

### 5.1 Materials Information Sheet and Instructions for Completing the Sheet

The following are instructions to complete the Materials Information Sheet. The items are presented in a sequential fashion as the items appear on the sheet.

#### Bin/Drum #

Enter the number of the drum or bin. This inventory number shall be assigned by the prime contractor and shall be a sequential number to allow the McClellan point of contact (POC) to determine the number of containers generated and/or stored at any given time.

#### Bin/Pile/Drum Size

Enter the capacity of the container or size of the pile in gallons (gal) or cubic yards (yd<sup>3</sup>) as appropriate.

#### Contractor

Enter the name of the prime contractor performing the field effort. Do not list subcontractors.

#### General Site Location/Building #

Enter a building number, street or cross street name, or other physical landmarks. Indicate on which side or corner of the landmark the site is located.  
Example: SW corner B655 (southwest corner of building 655)

#### Operable Unit

Enter the OU in which the work was performed.

#### Site Identifier Code

Enter the Site Identifier Code. The Site Identifier Code consists of a site or Investigation Cluster (IC) designation followed by a boring number.

Example: ICO1B001 or PLS-13B001

Specific Site Identifier Codes include:

Investigation Cluster .....IC  
Potential Release Location.....PRL  
Site .....Site  
Study Area .....SA  
Special Study Area.....SSA

Specific Boring Designators include:

Power Boring (rig) .....B###  
Hand Auger .....H###

Note: If there is an IC designation, use the IC Site Identifier Code in preference to other Site Identifier Codes. The contractor and the McClellan POC should establish a proper Site Identifier Code to ensure consistency with the site identification codes published in the analytical Data summaries for cross-referencing purposes. The contractor and the McClellan POC should also ensure that the Site Identifier Code is a unique basewide code that will not be repeated in another area or different phase of investigation.

## Appendix B

### **Depth Increment**

Enter the depth increment of the material in the container (e.g., 45-65 ft).

### **Volume/Percentage Full**

Enter the relative volume of material in the container as a percentage.

### **Date Sample Drilled**

Enter the date the soil was generated and/or containerized.

### **Potential Contaminant Profile**

For screening purposes, enter the type(s) of contaminant potentially present. This may not be evident in all cases. For the case in which the potential contaminant profile is unknown, enter "Unknown". If the work is conducted in an area of known contamination, enter the name(s) of the contaminant(s) (e.g., PCB, VOC).

### **Remarks/Screening Information**

Enter potential contamination indications, such as soil discoloration or organic vapor meter (OVM) readings. Also enter any notes that pertain to deviations to the procedures set forth in this manual or unusual circumstances. If necessary, attach a separate page describing the discrepancy and refer to the additional sheet in this entry.

### **Current Material Status**

Enter the current material status such as storage or disposal site, if applicable.

**6.0 APPENDIX C -  
AFRPA ENCROACHMENT/WORK CLEARANCE  
PERMIT**

## **AFRPA Encroachment/Work Clearance Permit and Process**

### **6.1 OPERATIONAL INSTRUCTION**

➤ An approved AFRPA Encroachment/Work Clearance Permit is required prior to performing any soil disturbance activities or improvement project planned at McClellan. This Operational Instruction lists the procedures and information that will be necessary for the evaluation of your permit application for approval. The AFRPA is here to assist you in processing your Permit. In order to facilitate your Permit request and expedite approval, as much information as possible should be provided. Permit approval may be delayed if information is incomplete and/or there are concerns by other agencies involved in the Permit review. The Permit application initiates preliminary planning review and must be processed prior to the start of work to allow for coordination and research of the subject site. If the project is altered or conditions at the job site change, the Permit must be reprocessed. Following the issuance of the approved Permit, the applicant must contact Underground Services Alert 48 hours prior to digging to arrange for utility marking. This Permit process is used to coordinate the required work with key Air Force, Sacramento County, and McClellan Park personnel and to keep interference to a minimum. An AFRPA Encroachment/Work Clearance Permit form may be obtained from AFRPA. The following documentation is required in order to apply for a Permit:

- A brief description of the proposed project.
- A Site Location Map and/or Grid Coordinate Map.
  1. Prepare or obtain a baseline map of the area.
  2. Ensure that maps are designed and sized to complement the format and purpose of your document.
  3. Label and number each map, explaining its features and including an informative caption.
- Include a north arrow and always orient north toward the top of the page.
- Area Environmental Management Map showing Soil Vapor Extraction (SVE), Contaminated Soil, EM Piping, etc.
- Site Plan with utility layout.
- Detail drawings of proposed work on a case-by-case basis.
- Project Questionnaire with the Encroachment Permit.

Note: Indicate as accurately as possible the exact location of the planned work. Include a figure that shows the location of the planned work. Provide plans or drawings that illustrate the extent of any planned excavation (e.g., building site, utility trench, drainage swale) and the footprint of any proposed buildings. The property boundary must be included for reference.

## Appendix C

- Indicate the type of work planned. If the planned work involves utilities, indicate whether the utilities are overhead or underground and the type of utility.
- Indicate the date that clearance is requested (i.e., the date the planned work is scheduled to begin).
- Indicate the date that clearance is to be terminated (i.e., the date the planned work is scheduled to be completed).
- Provide the following information for the requester(s):
  - Name
  - Phone number
  - E-mail address
  - Organization
- Submit the completed AFRPA Encroachment/Work Clearance Permit form and supplemental information to AFRPA for clearance review.
- After initial AFRPA screening of Encroachment Permits, a Health and Safety Plan may be required depending on the level of contamination at the site and must be signed by a Certified Health and Safety Professional.

After approval of the permit, AFRPA will issue the permit to the requestor. AFRPA will continue to monitor field activities and may require a site visit with requestor before permit is issued. The purpose of the site visit is to ensure that the requestor understands special permit conditions. The time required for AFRPA to process a permit can vary between one to six weeks depending upon scope and project location. Projects within IRP sites require increased review requiring up to six weeks.

For projects where site characterization sampling data is incomplete, has not been performed, or needs additional AFRPA review, additional field sampling may be required. Field soil assessments will be made using field techniques that will identify the most severely contaminated areas and protect human health during the construction process. Field techniques for site screening include looking for discolored soil, detecting odors, or using field equipment such as an organic vapor meter for detection of volatile organic compounds (VOCs). A standard VOC field screening procedure is presented in Section 5.10.1, “Ground Surface Sampling,” of the McClellan base wide Quality Assurance Project Plan (QAPP). However, no formal guidelines or threshold values are available for determining the magnitude of contamination. Each project must be addressed on a case-by-case basis.

## AFRPA Encroachment Permit Process

### 6.2 Frequently Asked Questions

#### Why do I need an encroachment permit?

An encroachment permit serves several purposes. First, the permit aims to protect worker and public health and safety by requiring a thorough site review and record search for any potential hazards before any work is started. Secondly, the permit and inspection process are to assure that quality construction work is performed. Thirdly, the inspections identify any other utilities present in the area. The permit also serves to reduce risk of exposure to various hazards, which may have financial and economic impacts on the area.

#### What rules and regulations are currently being enforced? Where can I get a copy of requirements?

The AFRPA has adopted a Soils Management Manual that specifies methods for excavating and handling soils on McClellan. The Manual contains references to various Base Realignment and Closure (BRAC) requirements, CERCLA, RCRA, state and local laws and the Federal Facilities Agreement (FFA). In addition, Sacramento County Building Inspection enforces the Uniform Building Codes (UBC, UMC, UPC, and NEC) and the Sacramento County Zoning Codes. The Sacramento Suburban Water District and the Sacramento Metropolitan Utilities District, PG & E and other entities also have codes and regulations that must be followed.

#### What kind of encroachment permit clearances do I need?

The following table of reviews may be required (as applicable) as part of the AFRPA Encroachment Permit Process for work clearance and permit issuance:

**Table 6-1: Table of Reviews**

AFRPA Encroachment Permit Process for Work Clearance and Permit Issuance	
Applicable Reviews	Telephone
Air Force Real Property Agency (AFRPA) <b>Encroachment Permits</b>	(916) 643-0830 x 230
Air Force Real Property Agency (AFRPA) Property Manager	(916) 643-6420 x 115
Air Force Real Property Agency (AFRPA) Real Estate	(916) 643-6420 x 110
Airfield Manager (BSC)	(916) 643-5611
Asbestos/Lead Based Paint & Compliance Manager, (AFRPA)	(916) 643-0830 x 206
Boeing Services Co. (BSC)	(916) 208-6367
Cable, AT&T Broadband Cable Service	(916) 648-8380
Communications, Sure West Broadband	(916) 568-8805
Communications, XO Sacramento	(916) 677-3222
Compressed Air Lines, McClellan Park	(916) 965-7100
Creeks and Channels, Sacramento County Maintenance	(916) 875-4772
Dolver, HERO Contractor	(916) 646-8921 (c)
Electrical Lines, Sacramento Municipal Utility District (SMUD)	(916) 568-8951
AFRPA Utilities, AFCEE Field Team	(916) 643-0830 x 240

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<b>Table 6-1 Continued</b>	
Environmental Screening Installation Restoration Program (IRP)	(916) 643-0830 x 230
Fire Deluge Lines	(916) 965-7100
Groundwater Management, AFRPA	(916) 643-0830 x 225
Landscape, McClellan Park	(916) 965-7100
McClellan Park	(916) 965-7100
Gas, Natural Gas Lines, PG&E	(916) 386-5371
Phone Lines, PACBELL	(916) 372-1780
Phone Lines, Roseville	(916) 786-1027
Radiological/Radiation, AFRPA	(916) 643-0830 x 227
Sacramento County, Local Redevelopment Authority (LRA)	(916) 646-1746
Sacramento Metro Fire Department	(916) 566-4394
Sanitary Sewer Maintenance, Dolver	(916) 646-8921
Sensitive Wetlands, & Endangered Species Habitat, AFRPA	(916) 643-0830 x 231
Soil Contamination, AFRPA	(916) 643-0830 x 224
Soil Vapor Risks, AFRPA	(916) 643-0830 x 202
Steam Distribution Lines (Systems Corp)	(916) 869-7005
Storm Drainage, Sacramento County Maintenance	(916) 875-7142
TPH/ Fuels & Underground Storage, AFRPA	(916) 643-0830 x 203
URS, Systems Field Manager	(916) 425-2322 (c)
Water Lines, Suburban	(916) 332-4111

### **How long will the process take?**

The process will take between 1-6 weeks.

### **How much does an Encroachment Permit cost?**

AFRPA does not charge for reviewing and issuing an Encroachment Permit. However, other entities do charge for their services, which are subsequently required to obtain an Encroachment Permit.

### **What do I need in order to apply for an Encroachment Permit?**

Application for an Encroachment Permit must be made on the AFRPA request document provided. The following documentation is required:

- A Site Location Map and/or Grid Coordinate Map
- Area Environmental Management Map showing SVE, Contaminated Soil, Piping, etc.
- Site Plan with utility layout
- Detail Drawings of proposed work on a case-by-case basis

The submittal should provide answers to the following questions:

1. Briefly, what is the scope of work this project will entail?
2. Will the proposed work have any impact or limitation on civilians, Air Force, or others, working in a facility (i.e., access or egress, parking, restrooms, utilities, etc.)? If so, what?
3. Will there be any street or lane closure? If so, how long?
4. Will there be any limitation for emergency response type personnel or vehicles?
5. If this work includes any excavation or construction will there be any surface preparation, how deep, how wide, how long, etc.?

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6. Any other comments to further clarify the scope of work?

### **How long are the Encroachment Permits valid?**

Encroachment permits are generally valid for 120 days or as otherwise noted on the permit.

### **What work does not require an Encroachment Permit?**

Work that does not disturb soil and/or encroach upon environmentally sensitive areas may not require an Encroachment Permit. The proponent should check with AFRPA. However, most work will require permits from one or more of the other entities listed above.

### **What work does not require review by AFRPA?**

Due to the environmental conditions at McClellan Park, a proponent should check with AFRPA to ascertain the necessity for review of permits.

### **Do I still need to get permits from local government such as Sacramento County?**

Yes.

### **What are the procedures if I encounter possible contaminated or unknown soils and/or materials?**

- **STOP WORK IMMEDIATELY!**
- **Notify the AFCEE field team at 916-643-0830 x 240.**
- Some projects may require field monitoring or hazardous material protective equipment regardless of the type of base permit or clearance. In these instances field crewmembers will be required to have the Hazardous Material (HAZWOPER) training.
- **Some work may require that workers wear personal protective equipment (PPE), depending on the level of contamination. AFRPA will require a Health and Safety Plan (signed by a Certified Health and Safety Professional) and/or Work Plan for digging in contaminated areas. Field crews must have current HAZWOPER training if digging in contaminated soils.**

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<b>AFRPA ENCROACHMENT / WORK CLEARANCE PERMIT</b>					
1. Clearance is requested to proceed with work at (or near) _____ AFRPA Permit No. _____, Project/Contract: _____ Involving Excavation or Construction per Attached Drawings. GRID COORDINATES: THE AREA INVOLVED <input type="checkbox"/> HAS <input type="checkbox"/> HAS NOT BEEN STAKED OR CLEARLY MARKED.					
<b>2. TYPE OF FACILITY WORK INVOLVED (CHECK TYPE)</b>					
<input type="checkbox"/> ROADWAYS	<input type="checkbox"/> DRAINAGE SYS.	<input type="checkbox"/> SEWER SYS.	<input type="checkbox"/> UTILITIES	List Utility: _____	
<input type="checkbox"/> PAVEMENTS	<input type="checkbox"/> Ditches	<input type="checkbox"/> Sanitary	<input type="checkbox"/> Overhead	Brief Description of Work: _____	
<input type="checkbox"/> RR Tracks	<input type="checkbox"/> Underground	<input type="checkbox"/> Sanitary/ IW	<input type="checkbox"/> Underground		
<input type="checkbox"/> AIRCRAFT OR	<input type="checkbox"/> Fire Protection,	<input type="checkbox"/> SECURITY			
<input type="checkbox"/> VEHICULAR	<input type="checkbox"/> Detection Alarm	<input type="checkbox"/> Gates			
<input type="checkbox"/> TRAFFIC FLOW	<input type="checkbox"/> SYSTEMS	<input type="checkbox"/> Fencing			
3. <b>INSTRUCTIONS:</b> The AFRPA ENCROACHMENT / WORK CLEARANCE PERMIT request is used for any excavation work or improvement project planned on McClellan Park. This form is used to coordinate the required work with key Air Force, Sacramento County and McClellan Park personnel, to minimize interference and identify potentially hazardous worker exposure to contaminated soils. The AFRPA ENCROACHMENT / WORK CLEARANCE PERMIT facilitates preliminary planning review and <b>MUST</b> be processed prior to the start of work with sufficient lead time to allow for coordination and research of the subject site. This PERMIT must be reprocessed and renewed if the project is altered or conditions at the job site change. This Permit <b>expires in 120 days</b> . Following issuance of this approved permit, the requestor must then contact Underground Services Alert at 1-800-227-2600 48 Hours prior to digging to arrange for utility marking. <b>Provide the AFRPA permit number to USA when requesting utility clearance. Copy of this AFRPA permit (with attachments) shall be on site and available to all workers when performing field activities</b>					
4. DATE PERMIT REQUESTED		5. DATE CONST. PLANNED		6. PROJECT SPONSOR (Point Of Contact)	
7. REQUESTORS NAME(S) (PLEASE PRINT)		8. PHONE NUMBER		9. ORGANIZATION	
10. REQUESTORS EMAIL ADDRESS					
<b>CLEARANCE REVIEW</b>					
ORGANIZATION	PHONE	Bldg	Initials Date	REMARKS	REVIEWER'S NAME
Environmental Screen IRP	643-0830x230	10			Mike Swart
Soil Vapor Risks	643-0830x202	10			Doug Self
Soil Contamination	643-0830x224	10			Steve Mayer
TPH/ Fuels	643-0830x225	10			Doug Fortun
Radiological/Radiation	643-0830x227	10			Dave Green
Asbestos/HazWaste Compl.	643-0830x206	10			Mike Prall
Sensitive Wetlands & Habitat	643-0830x231	10			Molly Enloe
EM Utilities & Soils Mgmt.	643-0830x240	10			Paul Bernheisel
AFBCA Real Estate	643-0830x110	10			Bob Almes or Linda Brophy
Sanitary Sewer	643-0830x115	10			Randy Dennis
SACRAMENTO COUNTY	646-1746	4			Katy Jacobson
Storm Drainage	646-1746	4			Carolyn Wallace
Street Right-of-Ways	646-1746	4			Carolyn Wallace
McClellan Park	965-7100	250HH			Alan Hersh
McC Park Property Mgr.	965-7100	250HH			
Building Tenant Manager					
Airfield Mgr. Boeing Services C	643-5611/2	871			Jerry Lee
11. REQUESTED ENCROACHMENT <input type="checkbox"/> APPROVED <input type="checkbox"/> DISAPPROVED					
12. DATE			13. SIGNATURE OF AFRPA ENCROACHMENT APPROVING OFFICER:		

AFRPA FORM 370 (Previous Editions Obsolete)

12/12/02

Work Clearance Encroachment Permit USA.XLS

Figure 6-1: AFRPA Encroachment / Work Clearance Permit

### 6.3 PERMIT REQUEST INFORMATION QUESTIONNAIRE

MEMORANDUM FOR ENCROACHMENT / WORK CLEARANCE PERMIT REQUESTER

FROM: AFRPA/DD-McClellan  
3411 Olson Street  
McClellan AFB CA 95652-1003

SUBJECT: INFORMATION QUESTIONNAIRE FOR PERMIT REQUESTS

1. In order to facilitate your encroachment request, we need as much information as possible. Without this information, clearance may be delayed if pertinent information is lacking. In order to process your request and minimize delays we have prepared this questionnaire to assist us with your requirement:

- a. Briefly, what is the scope of work this project will entail (include map showing location of all project activities, including any associated utility lines, etc.)?
- b. Will the proposed work have any impact or limitations upon the Air Force, McClellan Park or others, working near a facility, i.e., access, egress, parking, utilities, etc.? If so, what?
- c. Will there be any street or traffic lane closures required? If so, how long?
- d. If this work includes any excavation or construction, briefly describe any surface disturbance, how deep, how wide, and how long, etc.?
- e. Does this work require off-road travel, or involve temporary storage of equipment, excavated soils, or construction materials? If so, what are the proposed access routes and storage locations?
- f. What is the approximate schedule of required activities (estimated start date and period of performance)?

2. Thank you for providing this necessary information regarding your requirements. Please contact staff members, Mike Swart or Rick Solander, at 643-0830 (Ext: 206 and 228) if you have any questions.

THOMAS B. KEMPSTER  
AFRPA Senior Representative

**7.0 APPENDIX D -  
POINTS OF CONTACT AT MCCLELLAN PARK**

## 7.1 Points of Contact for Soils Disturbance Activities at McClellan Park

**Table 7-1: Points of Contact**

<b>AFRPA Contacts</b>	<b>Telephone</b>
BRAC Environmental Coordinator (BEC)	(916) 643-1250 x 200
Remedial Project Manager (RPM)	(916) 643-1250 x 200
Remedial Project Manager (Alternate RPM)	(916) 643-0830 x 208
Soils Program Manager (SPM)	(916) 643-0830 x 224
AFCEE Field Team Manager (FTM)	(916) 643-0830 x 240 Cell: (916) 997-1798
Department of Toxic Substances Control	(916) 255-3688
Regional Water Quality Control Board	(916) 255-3069
US EPA (Region 9), Program Manager	(415) 972-3269
AFRPA Real Estate	(916) 643-6420 x 110
Airfield Manager (BSC)	(916) 643-9693 (916) 416-7385 Cell
Asbestos/Lead Based Paint/Compliance	(916) 643-0830 x 206 (916) 997-1711 Cell
AFRPA Utilities	(916) 643-0830 x 240 (916) 997-1798 Cell
Environmental Screen IRP	(916) 643-0830 x 230
Forty Hour OSHA Digging Contractor, Dolver	(916) 717-6081 Cell
Groundwater	(916) 643-0830 x 225 (916) 997-1290 Cell
McClellan Park	(916) 965-7100
Radiological/Radiation	(916) 643-0830 x 227
Sacramento County	(916) 646-1746
Sacramento Metro Fire Department	(916) 566-4394
Sensitive Wetlands & Habitat	(916) 643-0830 x 231
Sewer Operations Manager (SOM)	(916) 643-6420 x 115
Soil Contamination	(916) 643-0830 x 224
Soil Vapor Risks	(916) 643-0830 x 202
TPH/ Fuels & Underground Storage	(916) 643-0830 x 203 (916) 997-1142 Cell

Appendix D

<b>Table 7-1 Continued</b>	
Cable, AT&T Broadband Cable Service	(916) 648-8380
Communications, Surewest Com Lines	(916) 568-8805
Communications, XO Sacramento	(916) 677-3711
Compressed Air Lines	(916) 965-7100 (916) 286-5717 Cell
Creeks and Channels	(916) 875-4772
Electrical Lines, SMUD	(916) 568-8951 (916) 869-9551 Cell
Fire Deluge Lines	(916) 965-7100
Gas, Natural Gas Lines, PG&E	(916) 386-5371 (916) 761-8439 Cell
Landscape, McClellan Park	(916) 965-7100
Phone Lines, PACBELL	(916) 372-1780
Phone Lines, Surewest	(916) 786-1027
Sanitary Sewer Maintenance & Operations	(916) 646-8921 (916) 717-6075 Cell
Steam Distribution Lines (Systems Corp)	(916) 869-7005 Cell
Storm Drainage	(916) 875-7142
URS	(916) 425-2322 Cell
Water Lines, Sacramento Suburban Water District	(916) 972-7171

**8.0 APPENDIX E -  
PRELIMINARY SURFACE AND NEAR SURFACE  
SOIL SAMPLING PLAN FOR PROPOSED OWNER  
CONSTRUCTION PROJECT**

### **8.1 Sampling Plan for Proposed Owner Construction Project**

The example sampling and analysis plan included in this appendix is for a construction project site approximately 500 feet by 250 feet (~2.8 acres) that will have clearing and grubbing operations performed to a depth of three feet. The plan proposes to analyze five composite soil samples from depths of 0 to 3 feet for metals and ten soil samples for volatile and semi-volatile organics (five samples from 12 to 18 inches below ground surface (bgs) and five samples from 30 to 36 inches bgs). This sampling density is consistent with remedial investigation/feasibility study sampling densities used at McClellan and is applicable to most sites where no site-specific information is available. However, sampling plans can vary dramatically depending on the types of contaminants suspected and the activities presumed to have created the contamination.

**Preliminary Surface and Near Surface Soil Sampling Plan**  
**For**  
**Proposed Owner Construction Project**

**Project Example 1**

**Compiled by:**

Air Force Real Property Agency/Environmental Management

McClellan, California

Pre-Draft February 2001

## **1.0 INTRODUCTION**

Construction site “Example 1” is proposed to contain a 3,000 square-foot building and a paved parking area for 50 vehicles. As part of the site preparation before construction, it will be rooted and grubbed, compacted, and leveled. This activity will disturb the soil up to a depth of three feet below ground surface (bgs). The proposed construction site is not on or near a known Installation Restoration Program (IRP) site. No previous sampling has been done in this area, and field-screening techniques have found no evidence of contamination.

This soil sampling plan for hypothetical construction site “Example 1” sets forth a phased plan for near-surface soil sampling and analysis to determine if the construction site is contaminated. Specifically, this sampling plan is intended to:

1. Determine if any of the contaminants typical for McClellan IRP sites are present within the proposed construction boundaries at concentrations exceeding background concentrations.
2. If contaminants are present at the site, collect data to determine if the concentrations might pose a threat to construction workers, the general public, or facility inhabitants during or after project completion.
3. Collect information consistent with and in support of the base wide Preliminary Assessment/Site Inspection (PA/SI) conducted as part of the IRP.

## **2.0 NEAR-SURFACE SOIL SAMPLING**

### **2.1 General**

All field activities shall be conducted in conformance with the latest version of the AFCEE Quality Assurance Project Plan (QAPP), except as specified below.

### **2.2 Boring Location**

Borings should be placed at the locations indicated on the work plan site map. If structures, aboveground appurtenances, or underground utilities preclude sampling in any of the prescribed locations, the sampling locations should be adjusted to obtain a sample as near as practicable, and the new location should be noted in the field log and on the site plan.

### **2.3 Sampling Equipment**

All borings should be made following the procedures for “Core Sampler with Soil Sleeves” in Section 5.8 of the QAPP. All samples should be taken using a combination of a hand auger and two-inch diameter core sampler with soil sleeves. At a minimum, the core sampler should contain a one-inch sleeve followed by a six-inch sleeve followed by a one-inch sleeve.

### **2.4 Sample Depth**

Separate core samples should be collected beginning at 12-inch and 30-inch depths in each borehole. A hand auger should be used to remove excess soil to the sampling depth. The core sampler should then be driven sufficiently deep to fill the soil sleeves. Any excess soil should be replaced into the borehole.

### **2.5 Organic Sample Handling**

Soil contained in the six-inch sleeve is to be analyzed for volatile and semi-volatile compounds. Therefore, the ring should be removed from the sampler, capped, and placed in an ice chest chilled to 4°C for transport to the laboratory, consistent with Section 5.8 of the QAPP.

### **2.6 Organic Sample Field Screening**

Level 1 organic vapor headspace measurements of soil in the one-inch sleeve should be taken in the field using an OVM and the results recorded on the field data sheets. The soil should be placed in a one-quart mason jar and left to equilibrate for five minutes before the headspace in the jar is sampled using the OVM. Procedures in Sections 7.2 and 8.4 of the QAPP for instrument calibration and use should be followed.

### **2.7 Inorganic Sample Handling**

Inorganic samples should be composited in the field. All soil in the remaining one-inch sleeve from each sampling depth within a borehole should be placed in a stainless steel bowl for compositing. The soil should then be homogenized by thorough mixing with a stainless steel spoon. The homogenized sample should then be placed in a container with a Teflon<sup>®</sup> cap and placed in an ice chest chilled to 4°C for transport to the laboratory, consistent with Section 5.8 of the QAPP.

## **3.0 LABORATORY ANALYSIS**

### **3.1 General**

All analyses should be performed in a laboratory certified by the State of California for the analysis being performed. Standard procedures for instrument calibration, analytical procedures and calibration, data reduction, validation and reporting, and internal quality control contained in Sections 7, 8, 9, and 10, respectively, of the base-wide QAPP should be followed.

### **3.2 Sample Selection**

Composite samples for inorganic analysis and the individual samples (12-inch and 30-inch depths) for organic analysis from selected boreholes (e.g., 1, 3, 5, 7 and 9) should be sent to the laboratory for analysis. Additionally, any samples showing abnormal staining or recording, of an OVM field screening reading, which significantly deviates above the background readings, should be sent for analysis. Remaining samples should be stored for confirmatory analysis at 4°C until the project officer has reviewed the results from the analyzed samples.

### **3.3 Organic Sample Analysis**

Samples submitted for organic analysis should be analyzed for semi-volatile organics using EPA method SW8270 and for pesticides/PCBs using EPA method SW8080. If the site shows signs of a recent fuel or solvent spill or if it is associated with an underground source, analysis should be done of volatile organics using EPA method SW8240.

### **3.4 Inorganic Analysis**

The field composite one-inch ring soil samples submitted for inorganic analysis should be analyzed for metals using EPA methods SW6010, SW7060, SW7131, SW7421, SW7471, SW7740, and SW7841.

### **4.0 DATA DELIVERY**

All analytical results, including Quality Assurance/Quality Control (QA/QC) sample duplicates, trip blanks, and spike information should be prepared and delivered to the project officer for review and placement into the Environmental Restoration Program Information Management System (ERPIMS) format for entry into the Technical Information System (TIS) consistent with the *ERPIMS Data Loading Handbook Version 2.2*, and the *Handbook to Support the Installation Restoration Program (IRP) Statements of Work*, June 1992.

### **5.0 DATA REVIEW**

#### **5.1 Data Quality Assessment**

The Project Management Team, consistent with Section 2.3 of the *Handbook to Support the Installation Restoration Program (IRP) Statements of Work*, June 1992, will assess Field records, laboratory data, and environmental data.

#### **5.2 Health Risk Screening**

Any archived samples in the same borehole with or in boreholes adjacent to samples that contain a contaminant whose concentration exceeds the upper 90 percent confidence limit of its average background concentration shall be analyzed for the identified contaminant. If any samples contain a contaminant whose concentration exceeds the upper 90 percent confidence limit of its background average, a screening risk assessment shall be performed to determine if any significant risk is posed to construction personnel or future project inhabitants.

### **6.0 FINAL REPORT**

A final report should be given to the AFRPA RPM for review. The report shall include a copy of the sampling and analysis plan, all analytical results, a brief description of the procedures used to comply with Section 5.1, the results of any health risk screening, and a recommended course of action.

## **9.0 APPENDIX F -**

### **AFRPA SOILS MANAGEMENT DUMP SLIP/MATERIAL DISPOSITION PERMIT**

<b>McClellan SOILS DUMP SLIP / MATERIALS DISPOSITION PERMIT</b>		
<b>Dump Slip must be completed and approved before delivery is authorized.</b>		
<b>McClellan (AFRPA) Soils and Aggregate Management Areas</b>		
<b>Operated by DOLVER Co. (916) 646-8921</b>		
<b>Hours of Operation: 7am-5pm</b>		
Date: _____		
Generating Org.: _____		Signature: _____
Contract/W.O./Job No: _____		AFRPA Encroachment Permit No.: _____
Sub Contractor: _____		Signature: _____
Project Location: _____		Off Base Destination: _____
<b>Materials Delivered to Off-Base Recycler or Landfill:</b>		
Material Type	Number of Loads	Est. Total Cu. Yards
Asphalt		
Concrete		
Mixed Debris:		
Soil Mixed with:		
<b>Materials Received from AFRPA Materials Yard:</b>		
Material Type	Number of Loads	Est. Total Cu. Yards
Crusher Agg. Base Material		
Gravel		
Sand		
Soil		
Planned use for materials: _____		
<b>Materials Delivered to AFRPA Clean Soils Holding Area or Other SHA:</b>		
Material Type	Number of Loads	Est. Total Cu. Yards
Clean Soil		
<b>Note: Soils containing debris, asphalt or sub-base material (oil &amp; grease) will not be accepted.</b>		

DumpSlip 2003

DumpSlip 2003

**Figure 9-1: McClellan Soils Dump Slip / Materials Disposition Permit**

## 10.0 BIBLIOGRAPHY

*AFCEE Base Closure Restoration Division Field Engineer Manual, September 1996.*

*Federal Register, 16 February 1993, Vol. 58, No. 29, pp. 8658-8685.*

*Management of Investigation-Derived Wastes During Site Inspections, 1992, EPA/540/G9 1/009.*

*McClellan Air Force Base Management Action Plan, July 1993, McClellan Air Force Base, California.*

*McClellan AFB Directorate of Environmental Management Soils Management Program, June 1991, McClellan Air Force Base, California.*

*McClellan Basewide Quality Assurance Project Plan, September 2002.*

*Operation and Maintenance Plan for Contaminated Soil Holding Area Located Northeast of Building 704, McClellan Air Force Base, California.*

*Remedial Investigation Characterization Summary, 1996-2001, McClellan Air Force Base, California.*

*Risk Assessment Consensus Statement, June 1993, McClellan Air Force Base, California.*

*Soil/Debris Management Plan for McClellan AFB, California, December 1991, Radian Corporation.*

*Statistical Methods for Environmental Pollution Monitoring, Gilbert, R., 1987, Von Nostrand Reinhold, New*