PROJECT SPECIFIC PLAN FOR EXCAVATION CONTROL IN THE AREA 6 OU1 STOCKPILE AREA (SUPPLEMENT TO 20300-PSP-0011)

SOIL AND DISPOSAL FACILITY PROJECT

FERNALD CLOSURE PROJECT
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Figure 2-1 OU1 Stockpile Above WAC and Above FRL Areas

LIST OF ACRONYMS AND ABBREVIATIONS

ALS	Analytical Laboratory Services
ASCOC	area-specific constituent of concern
ASL	analytical support level
AWWT	Advanced Wastewater Treatment (Facility)
CDL	Certification Design Letter
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
COC	constituent of concern
CU	certification unit
DOE	U.S. Department of Energy
DQO	Data Quality Objective
EMS	Excavation Monitoring System
FACTS	Fernald Analytical Computerized Tracking System
FCP	Fernald Closure Project
FPA	former Production Area
FRL	final remediation level
FTF	Fire Training Facility
GC	gas chromatograph
GPS	global positioning system
GMA	Great Miami Aquifer
HPGe	high-purity germanium (detector)
LAN	Local Area Network
NaI	sodium iodide
OSDF	On-Site Disposal Facility
OU	Operable Unit
PID	photoionization detector
PPE	personal protective equipment
ppm	parts per million
PSP	Project Specific Plan
PWID	Project Waste Identification and Disposition
QA/QC	Quality Assurance/Quality Control
RSS	Radiation Scanning System
RTIMP	Real-Time Instrumentation Measurement Program
RTRAK	Real-Time Radiation Tracking System
RWP	Radiological Work Permit
SCQ	Sitewide CERCLA Quality Assurance Project Plan
SDFP	Soil and Disposal Facility Project
SED	Sitewide Environmental Database
SEP	Sitewide Excavation Plan
SMMP	Soil and Miscellaneous Media Sampling
SWL	Solid Waste Landfill
TAL	Target Analyte List
TCLP	Toxicity Characteristic Leaching Procedure
V/FCN	Variance/Field Change Notice
VOC	volatile organic compound
WAC	Waste Acceptance Criteria
WAO	Waste Acceptance Organization
WPRAP	Waste Pits Remedial Action Project

1.0 INTRODUCTION

This project specific plan (PSP) describes the data collection activities necessary to support excavation control of the Operable Unit (OU) 1 Stockpile Area, located within Area 6. The format of this PSP differs from that of previously submitted PSPs as this PSP only presents the specific information regarding the OU1 Stockpile Area. The general information that is routinely addressed in a PSP, can be found in 20300-PSP-0011, *Project Specific Plan Guidelines for General Characterization for Sitewide Soil Remediation*. While this PSP has section headings similar to a full-length PSP, where the information in the section is identical to the information in the general PSP, 20300-PSP-0011, a reference to this general PSP is made, and the information is not repeated.

1.1 PURPOSE

The purpose of this PSP is to provide specific direction regarding the excavation of the OU1 Stockpile Area. This detailed information includes reason to sample, anticipated sample locations, depth intervals, and constituents of concern.

1.2 SCOPE

The area included within the scope of this PSP is the OU1 Stockpile Area.

The schedule for implementation of this PSP is expected to begin in the fall of 2003 with the excavation of the OU1 Stockpile Area. The area will not be certified immediately following excavation due to ongoing activities in the surrounding contiguous areas. However, access to the OU1 Stockpile Area will be limited after excavation activities are completed to avoid potential re-contamination of the area.

This PSP is not considered a work authorization document per SH-0021, Work Permits. Work authorization documents per SH-0021 may include applicable Environmental Services procedures, Fluor Fernald work permits, Radiological Work Permit (RWP), penetration permits, and other applicable permits.

1.3 VARIANCE/FIELD CHANGE NOTICE (V/FCN) DOCUMENTATION

Field conditions may arise that warrant a different decision process for defining the extent of contamination or for verifying that soil is below-WAC or below-FRL concentrations. Factors that will be considered under special circumstances include safety of the workers, cost effectiveness, the need for a timely response, and impending weather conditions. In the event that a change in the characterization approach is needed, the Characterization Manager will document the change and requirements through the Variance/Field Change Notice (V/FCN) process in accordance with Section 7.5. In the event that changes need to be implemented expeditiously, verbal or electronic mail authorization will suffice followed by the written authorization on the V/FCN within seven working days. Changes to the PSP will also be noted in the applicable Field Activity Logs. Additionally, V/FCNs that are considered to be significant will require approval from the regulatory agencies in accordance with Soil and Disposal Facility Project (SDFP) agreements.

As part of the excavation control process, the collection of physical samples will be documented in applicable field logs and with V/FCNs. Additionally, the Data Group Form, FS-F-5157 will be generated per Procedure EW-1021, Preparation of the Project Waste Identification and Disposition (PWID) Report, following the generation of data from the analysis of physical samples. If field conditions require changes or variances, a V/FCN will be developed and approved by the Characterization Lead, QA Representative, and WAO.

1.4 KEY PERSONNEL

Reference Section 1.4 of 20300-PSP-0011, *Project Specific Plan Guidelines for General Characterization for Sitewide Soil Remediation.*

2.0 AREA-SPECIFIC WORK REMAINING STATUS

2.1 OU1 STOCKPILE AREA

2.1.1 History

The OU1 Stockpile Area is a flat, irregularly shaped area of approximately 5 acres lying between the waste pits and the former process area. The area is bounded on the west by the rail spur and on the east by the haul road and was used at one time as temporary storage of clay soil from liner construction activities for Waste Pit 4. Individual soil piles (of approximately one truckload each) can be seen in this area in site photos from 1988 but do not appear in later site photos.

2.1.2 Predesign

This supplemental PSP differs from the typical supplemental PSP because predesign activities are complete. The predesign investigation of the OU1 Stockpile Area was completed per *Project Specific Plan for Predesign Sampling in Area 6 SP-7/OU1Stockpile Area*, 20650-PSP-0001. Therefore, the required subsections for this section per 20300-PSP-0011 are not applicable and are not listed.

2.1.3 Excavation Control

2.1.3.1 ASCOCs

The preliminary list of ASCOCs, found in the SEP Table 2-7 and data from the predesign investigation of the OU1 Stockpile Area resulted in the following list of primary and secondary COCs:

Primary COCs

- Radium-226
- Radium-228
- Thorium-228
- Thorium-232
- Total Uranium

Secondary COCs

- Aroclor-1254
- Aroclor-1260
- Arsenic

- Benzo(a)pyrene
- Benzo(b)fluoranthene
- Beryllium
- Bromodichloromethane (Not detected above the FRL in the remediation area, but the non-detect value is greater than the FRL)
- Cesium-137
- Dibenzo(a,h)anthracene
- 1,1-Dichloroethene
- Dieldrin
- Fluoride
- Heptachloradibenzo-p-dioxins
- Indeno(1,2,3-cd)pyrene
- Octachlorodibenzo-p-dioxin
- Technetium-99
- Tetrachloroethene
- Thorium-230

The data collected in the OU1 Stockpile Area was compared to the OSDF WAC. The only constituents that were above-WAC in the area are technetium-99 and total uranium. However, PCBs (aroclor 1254 and aroclor 1260) were detected at one location with concentrations above the FRL at depths below the uranium contamination. Therefore, the constituents controlling excavation in the OU1 Stockpile Area are technetium-99, total uranium and PCBs (aroclor 1254 and aroclor 1260).

2.1.3.2 Excavation Types

The types of excavation identified in the OU1 Stockpile Area are those that are either above-WAC (driven by total uranium or technetium-99) or above-FRL (driven by total uranium or PCBs). Real-time scanning for total uranium will be performed for both above-WAC uranium areas and above-FRL uranium areas per 20300-PSP-0011, Section 5.1. Physical sampling for excavation control for above-WAC technetium-99 contamination and above-FRL PCB contamination will be performed per 20300-PSP-0011, Section 5.2.

2.1.3.3 Locations

The list of above-WAC and above-FRL areas (see Figure 2-1) and associated COCs are as follows:

Above-WAC Areas	**COC**
Area 1 – North of the Pit 4 Cap Stockpile	Total Uranium
Area 2 – Northwest of the Pit 4 Cap Stockpile	Technetium-99
Area 3 – Southwest of the Pit 4 Cap Stockpile	Total Uranium

Above-FRL Areas	**COC**
Area 1 – South of the Pit 4 Cap Stockpile	Aroclor-1254 and Aroclor-1260

2.1.4 Precertification

Precertification will be performed per 20300-PSP-0011, Section 3.0 and Section 6.0.

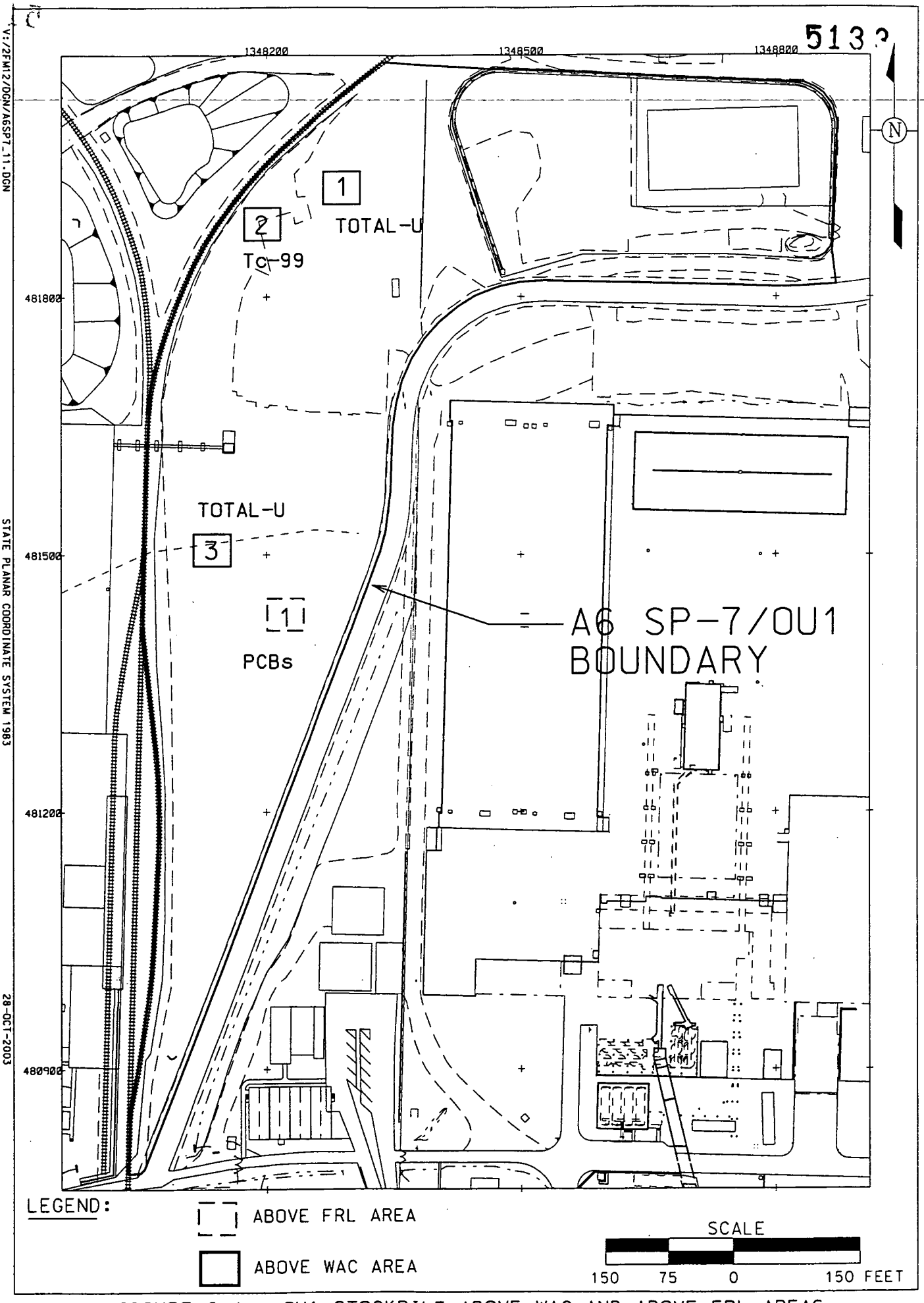

FIGURE 2-1. OU1 STOCKPILE ABOVE WAC AND ABOVE FRL AREAS

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3.0 INSTRUMENTATION AND TECHNIQUES

Reference the corresponding section of 20300-PSP-0011, *Project Specific Plan Guidelines for General Characterization for Sitewide Soil Remediation* for each of the following sections:

3.1 MEASUREMENT INSTRUMENTATION AND TECHNIQUES

3.1.1 Real-Time

3.1.1.1 Sodium Iodide Data Acquisition (RTRAK, RSS, GATOR, EMS)

3.1.1.2 HPGe Data Acquisition

3.1.1.3 Excavation Monitoring System

3.1.1.4 Radon Monitor

3.1.2 Surface Moisture Measurements

3.2 REAL-TIME MEASUREMENT IDENTIFICATION

3.3 REAL-TIME DATA MAPPING

3.4 REAL-TIME SURVEYING

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4.0 PREDESIGN

This supplemental PSP differs from the typical supplemental PSP because predesign activities are complete. The predesign investigation of the OU1 Stockpile Area was completed per *Project Specific Plan for Predesign Sampling in Area 6 SP-7/OU1 Stockpile Area*, 20650-PSP-0001. Therefore, the required subsections for this section per 20300-PSP-0011 are not applicable and are not listed.

5.0 EXCAVATION CONTROL MEASURES

Reference the corresponding section of 20300-PSP-0011, *Project Specific Plan Guidelines for General Characterization for Sitewide Soil Remediation* for each of the following sections:

5.1 EXCAVATION DESIGN CONTROL REQUIREMENTS

5.1.1 Contamination Zone

5.1.2 Floors, Roads and Foundations

5.1.3 Real-Time Lift Scans

5.1.4 AWAC Lift Scans

5.2 ORGANIC SCREENING AND PHYSICAL SAMPLING REQUIREMENTS

5.2.1 Above-WAC Photoionization Detector (PID)/Gas Chromatograph (GC) Screening

5.2.2 All Other Physical Sample Requirements

5.2.3 PID Screening and Physical Sampling Procedures

5.2.4 Physical Sample Identification

6.0 PRECERTIFICATION

Reference the corresponding section of 20300-PSP-0011, *Project Specific Plan Guidelines for General Characterization for Sitewide Soil Remediation* for each of the following sections:

6.1 INITIAL PRECERTIFICATION NaI SCAN AT BASE OF DESIGN GRADE

6.2 PRECERTIFICATION HPGE MEASUREMENTS IN 20 PPM FRL (URANIUM) AREAS

6.3 PRECERTIFICATION HPGE MEASUREMENTS IN 82 PPM FRL (URANIUM) AREAS

6.4 DELINEATING HOT SPOTS FOLLOWING PRECERTIFICATION HPGE MEASUREMENTS

7.0 QUALITY ASSURANCE/QUALITY CONTROL REQUIREMENTS

Reference the corresponding section of 20300-PSP-0011, *Project Specific Plan Guidelines for General Characterization for Sitewide Soil Remediation* for each of the following sections:

7.1 QUALITY CONTROL SAMPLES - REAL-TIME MEASUREMENTS AND PHYSICAL SAMPLES

7.2 DATA VALIDATION

7.2.1 Physical Sample Data Validation

7.2.2 Real-Time Data Verification/Validation

7.3 APPLICABLE DOCUMENTS, METHODS AND STANDARDS

7.4 SURVEILLANCES

7.5 IMPLEMENTATION AND DOCUMENTATION OF VARIANCE/ FIELD CHANGE NOTICES (V/FCN)

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8.0 SAFETY AND HEALTH

Reference the corresponding section of 20300-PSP-0011, *Project-Specific Plan Guidelines for General Characterization for Sitewide Soil Remediation* for this section.

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9.0 EQUIPMENT DECONTAMINATION

Reference the corresponding section of 20300-PSP-0011, *Project Specific Plan Guidelines for General Characterization for Sitewide Soil Remediation* for this section.

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10.0 DISPOSITION OF WASTES

Reference the corresponding section of 20300-PSP-0011, *Project Specific Plan Guidelines for General Characterization for Sitewide Soil Remediation* for this section.

11.0 DATA AND RECORDS MANAGEMENT

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Reference the corresponding section of 20300-PSP-0011, *Project Specific Plan Guidelines for General Characterization for Sitewide Soil Remediation* for each of the following sections:

11.1 REAL-TIME

11.2 PHYSICAL SAMPLES