

**Department of Energy**

**Ohio Field Office
Fernald Closure Project
175 Tri-County Parkway
Springdale, Ohio 45246
(513) 648-3155**



APR 26 2006

Mr. James A. Saric, Remedial Project Manager
United States Environmental Protection Agency
Region V-SRF-5J
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

DOE-0116-06

Mr. Thomas Schneider, Project Manager
Ohio Environmental Protection Agency
Southwest District Office
401 East Fifth Street
Dayton, Ohio 45402-2911

Dear Mr. Saric and Mr. Schneider:

**TRANSMITTAL OF THE RESPONSE TO THE OHIO ENVIRONMENTAL
PROTECTION AGENCY COMMENT AND CHANGE PAGES TO THE REVISED
CERTIFICATION DESIGN LETTER AND CERTIFICATION PROJECT SPECIFIC
PLAN FOR SELECTED AREA 6 AND AREA 7 CONCRETE STRUCTURES**

- References: 1) Letter DOE-0089-06, J. Reising to J. Saric/T. Schneider, "Transmittal of Responses to U.S. Environmental Protection Agency and Ohio Environmental Protection Agency Comments and the Revised Certification Design Letter and Certification Project Specific Plan for Selected Area 6 and Area 7 Concrete Structures," dated March 14, 2006
- 2) Letter, T. Schneider to J. Reising, "Disapproval - RTCs on the CDL and Certification PSP for Selected A6 and A7 Concrete Structures," dated April 18, 2006

Enclosed for your approval is the response to the additional Ohio Environmental Protection Agency comment noted in Reference 2. The comment has been incorporated into the Certification Design Letter and Certification Project Specific Plan for Selected Area 6 and Area 7 Concrete Structures through the enclosed change pages.

Mr. James Saric
Mr. Tom Schneider

-2-

DOE-0116-06

If you have any questions or require additional information, please contact me at (513) 648-3139.

Sincerely,


Johnny W. Reising
Director

Enclosures

cc w/enclosures:

J. Desormeau, OH/FCP
T. Schneider, OEPA-Dayton (three copies of enclosures)
G. Jablonowski, USEPA-V, SRF-5J
M. Cullerton, Tetra Tech
M. Shupe, HSI GeoTrans
R. Vandegrift, ODH
AR Coordinator, Fluor Fernald, Inc./MS6

cc w/o enclosures:

J. Chiou, Fluor Fernald, Inc./MS88
F. Johnston, Fluor Fernald, Inc./MS12
C. Murphy, Fluor Fernald, Inc./MS1

**CERTIFICATION DESIGN LETTER AND
CERTIFICATION PROJECT SPECIFIC PLAN
FOR SELECTED AREA 6 AND AREA 7
CONCRETE STRUCTURES**

**FERNALD CLOSURE PROJECT
FERNALD, OHIO**



APRIL 2006

U.S. DEPARTMENT OF ENERGY

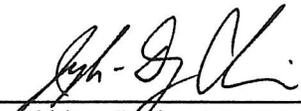
**20500-PSP-0011
REVISION 1
PCN 1**

**CERTIFICATION DESIGN LETTER AND
CERTIFICATION PROJECT SPECIFIC PLAN
FOR SELECTED AREA 6 AND AREA 7
CONCRETE STRUCTURES**

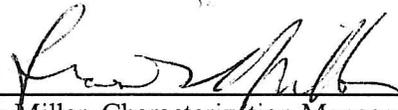
**Document Number 20500-PSP-0011
Revision 1, PCN 1**

April 2006

APPROVAL:



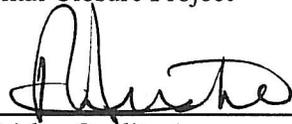
Jyh-Dong Chiou, Project Manager
Environmental Closure Project
Date 4/21/06



Frank Miller, Characterization Manager
Environmental Closure Project
Date 4/21/06



Tom Buhlage, Sampling Manager
Environmental Closure Project
Date 4/24/06



Reinhard Friske, Quality Assurance/Quality Control
Safety, Health and Quality
Date 4-24-06

FERNALD CLOSURE PROJECT

**Fluor Fernald, Inc.
P.O. Box 538704
Cincinnati, Ohio 45253-8704**

REVISION SUMMARY

<u>Revision</u>	<u>Date</u>	<u>Description of Revision</u>
Rev. 0	2-28-06	Initial controlled issuance.
Rev. 1	3-14-06	Revised to include U.S. EPA comment responses and OEPA comment responses.
PCN 1	4-20-06	Revised to include a change to the Executive Summary per an additional OEPA comment response.

EXECUTIVE SUMMARY

This document combines the Certification Design Letter (CDL) and Certification Sampling Project Specific Plan (PSP) for selected concrete structures in Area 6 and 7 into a single document. Specifically, the concrete structures include the Area 6 Locomotive Maintenance Building floor slab (Area 6) and the Area 7 Test Stand Pad slab, Vitrification Pilot Plant Building floor slab, and the Trailer Parking Area pads used by the Silos Project. This document describes the precertification and certification process for the concrete structures including the methodology for real-time scanning, biased and random sample location selection, selection of analytical constituents of concern, sample collection, laboratory analysis, and validation of the analytical results. This CDL and PSP is unique in two respects: 1) concrete will be certified by adopting the applicable soil final remediation levels (FRLs) and the same statistical data evaluation process applied to soil certification, and 2) the precertification process for selecting biased sample locations (in addition to the 16 random locations in each certification unit) will be based on real-time radiological scanning and visual inspection discussed in this plan. The random and additional biased sampling approach during field certification will ensure that the concrete is below the soil FRLs for each area-specific constituent of concern (ASCOC). Successful certification of this concrete will provide for potential beneficial reuse options of the material on the Fernald site.

The following summarizes the information included in this CDL/PSP:

- The certification unit boundaries and description of the concrete structures of interest to be certified under the guidance of this document;
- Real-time radiological scanning methodology and instrumentation for the concrete surfaces, the quality control process, and background levels for concrete;
- Selection of biased sample locations based on real-time scans and visual observations of concrete surfaces;
- A presentation of the certification unit boundaries and proposed initial random sampling strategy;
- A discussion of the ASCOC selection process and list of certification ASCOCs assigned to the Area 6 and Area 7 concrete;
- Details of certification sampling methods, sample analysis requirements, data validation, and the statistical methodology applied to the certification data; and
- The proposed schedule for the certification activities.

PCN 1 The scope of this effort is limited to the certification of concrete in Area 6 and Area 7 locations currently or formerly occupied by buildings used for remedial actions, as shown in Figure 1-1. Field sampling is scheduled to begin immediately following approval of this document except for the Silos Project Trailer

Parking Area. Certification of concrete in this area will be initiated after the Silos Project waste storage and shipping operations in the area are complete.

The certification design presented in this document follows the general approach outlined in Section 3.4 of the Sitewide Excavation Plan (SEP, DOE 1998a) and SEP Addendum (DOE 2001), which will be adopted for certification of concrete. In addition to the SEP certification standard approach, this plan specifies the use of a conservative biased sampling strategy, based on the real-time scan, and visual inspection results as well as significantly reduced certification unit sizes.

The selection of Area 6 and Area 7 ASCOCs for the concrete was accomplished by reviewing the analytical data set for the source waste processed in the subject buildings (e.g., Silo 1 and 2 waste) and comparing it to the constituent of concern (COC) lists in the Operable Unit 5 Record of Decision (DOE 1996) for which a soil FRL has been established. Additionally, process knowledge and the list of chemicals used and/or spilled in the building during remedial operations were reviewed and evaluated for the purpose of final COC selection.

This CDL/PSP and the execution of the plan's protocols will serve as a test for the concrete certification process to be used later in the Silos 1 and 2 Transfer Tank Building and Remediation Facility, the Radon Control System Building and the Silo 3 Staging Pad. Based on information gathered and improvements identified during implementation of this plan, modifications and refinements will be made to future concrete certification CDL/PSPs.