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SEP 17 2003

Mr. James A. Saric, Remedial Project Manager
United States Environmental Protection Agency
Region V, SR-6J
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

DOE-0516-03

Mr. Tom Schneider, Project Manager
Ohio Environmental Protection Agency
401 East 5th Street
Dayton, Ohio 45402-2911

Dear Mr. Saric and Mr. Schneider:

TRANSMITTAL OF CHANGE PAGES TO THE FINAL INTEGRATED REMEDIAL DESIGN PACKAGE FOR THE AREA 6 SOLID WASTE LANDFILL AND FIRE TRAINING FACILITY

Enclosed for your approval are page changes to the final Integrated Remedial Design Package for the Area 6 Solid Waste Landfill (SWL) and Fire Training Facility. These page changes include revised text in Section 2.6.1 to provide additional detail of the above Waste Acceptance Criteria (WAC) uranium bounding in the SWL and to correct the depth of the bounding from 18 feet to 7 feet as shown in revised Figure 2-5.

If you have any questions or need further information, please contact Johnny Reising at (513) 648-3139.

Sincerely,

Glenn Griffiths
Acting Director

FCP:Reising

Enclosure: As Stated

SEP 17 2003
DOE-0516-03Mr. James A. Saric
Mr. Tom Schneider

-2-

cc w/enclosure:

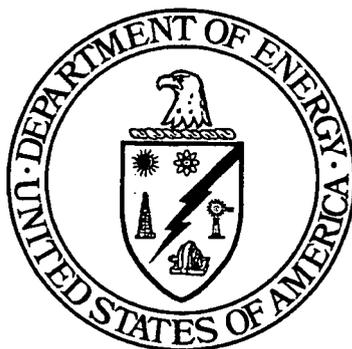
D. Pfister, OH/FCP
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A. Snider, Fluor Fernald, Inc./MS64
W. Zebick, Fluor Fernald, Inc./MS60
ECDC, Fluor Fernald, Inc./MS52-7

**IMPLEMENTATION PLAN FOR
AREA 6 SOLID WASTE LANDFILL
AND FIRE TRAINING FACILITY**

**FERNALD CLOSURE PROJECT
FERNALD, OHIO**



SEPTEMBER 2003

**U.S. DEPARTMENT OF ENERGY
FERNALD AREA OFFICE**

**20600-PL-0003
REVISION 0
PCN 1**

REVISION SUMMARY

<u>Revision</u>	<u>Date</u>	<u>Description of Revision</u>
Rev. 0	3/31/03	Initial controlled issuance.
PCN 1	9/15/03	Revised Figure 2-5 and Section 2.6.1 to provide additional detail of the above-WAC uranium bounding in the SWL and correct the bounding depth from 18 feet to 7 feet.

established under the Miscellaneous Areas PSP and sampled to confirm these results. Table 2-4 lists the above-WAC results identified in this sampling activity.

The Predesign PSP sampling strategy involved establishing borings to determine if any additional above-WAC locations were present within the SWL as well as to fill any gaps in the data set. A base interval to assess FRL status was also collected to conservatively bound all above-FRL material. The WAC COCs were total uranium, identified as the only above-WAC constituent in the SWL based on Miscellaneous Areas PSP sampling, and technetium-99, which was retained due to the variety of the material that was dispositioned into the SWL as well as the high concentrations of technetium-99 across the site. All primary and secondary COCs for Area 6, as specified in the SEP, were analyzed during this investigation for FRL attainment.

Predesign borings were advanced to a depth of at least 3 feet below the detected above-FRL contamination zone for investigation. For example, since above-FRL contamination had been identified at the 22-foot interval in the middle section of the SWL, the predesign boring at that location was advanced to depths of 24 to 26 feet. This sampling method was used to support the planned SWL excavation design. Historical data indicated above-FRL concentrations of thorium-228, thorium-232, uranium and arsenic; however, due to the variety of material placed in the SWL, all primary and secondary Area 6 COCs were analyzed for FRL attainment under the Predesign PSP. Twenty-two borings and 145 associated analyses (Appendix C) have been completed under the Predesign Sampling PSP. Figure 2-4 shows all Predesign PSP boring locations in the SWL.

Extent of Contamination

The sample results obtained under the OSDF Miscellaneous Areas and Predesign PSPs indicated that all above-FRL contamination has been bound at depth for the entire SWL footprint, and this region of the FCP should be ready for certification design following the completion of remedial activities. Tables 2-4 through 2-6 list the above-WAC and above-FRL analytical results.

2.4 HIGH-LEACHABILITY ZONES

The SWL is not considered a high-leachability area. The FRLs for this portion of the FCP were established in the OU2 ROD.

2.5 IDENTIFICATION OF AREA-SPECIFIC CONSTITUENTS OF CONCERN

Table 2-1 identifies the preliminary list of COCs for Area 6, which was based on the results of sampling and analysis performed during the RI/FS investigation. Based on the results of predesign sampling and analysis, Table 2-7 presents the revised list of COCs that will be used for the SWL. The list of primary COCs has remained the same since these are sitewide COCs, while some of the secondary COCs have been eliminated. The COCs were chosen based on either of the following two criteria:

- The constituent is widespread in the SWL and is commonly found at above-FRL concentrations (i.e., the primary COCs)
- The constituent is present at above-FRL concentrations at depths that drive the design excavation contours in those areas.

2.6 ANTICIPATED EXCAVATION BOUNDARIES

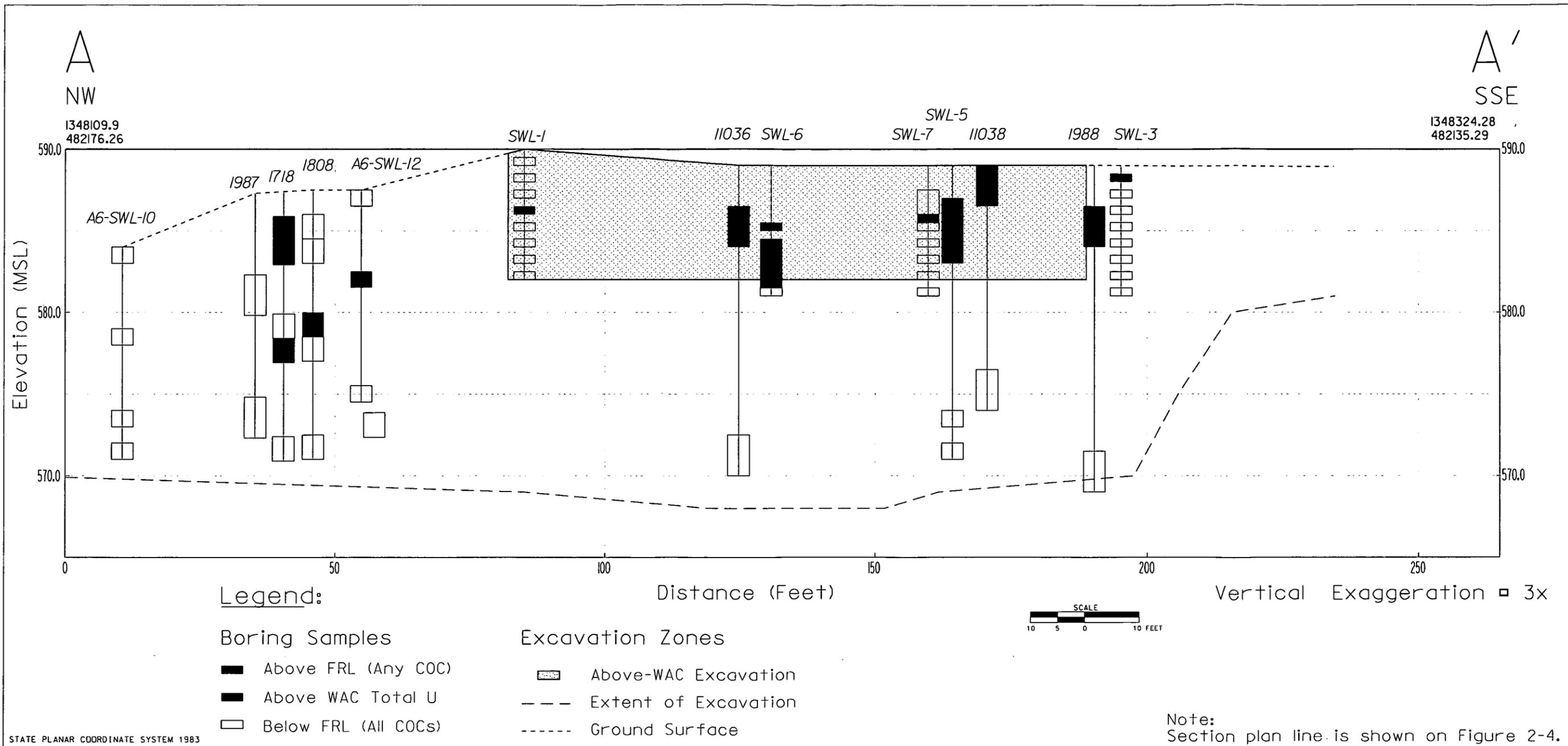
Excavation boundaries for the SWL are established based on the following information:

- Above-WAC and above-FRL areas which are established based on physical sampling results
- Constructability and safe-slope configurations necessary to effectively excavate the material.

All of this information is combined to form a complete picture of the volume of material that should be excavated from the SWL. Table 2-8 summarizes the soil volumes associated with the excavation driver (in this instance, above-WAC total uranium concentrations). Additional discussion on the above-WAC and above-FRL excavation boundaries is provided below. Section 4.0 provides the excavation volumes for soil and debris.

2.6.1 Above-WAC Material

PCN 1 A review of the historical data set identified total uranium present in the subsurface at above-WAC levels at three RI/FS borings; 11036 (1170 ppm), 1986 (1280 ppm), and 1722 (1247 ppm). Lateral bounding was achieved with borings SWL-1 through 5 and vertical bounding to a maximum depth of 7.0 feet was achieved with boring SWL-6. The excavation volume was determined based on a straight wall excavation at bounding points SWL-1, 2, 3, 4, and 5. The above-WAC design excavation depths are shown on the SWL and FTF Grading/Drainage Plan (SWL) drawing included with this IRDP. A cross section of the SWL remedial excavation, including the above-WAC area, is shown on Figure 2-5.



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FIGURE 2-5. CROSS-SECTION OF SWL REMEDIAL EXCAVATION