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Department of Energy

Environmental Management
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March 29, 2007

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

EMCBC-00390-07

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 ON THE FINAL CERTIFICATION REPORT
FOR AREA 6E**

Enclosed for your review and approval are responses to Ohio Environmental Protection Agency (OEPA) comments on the Final Certification Report for Area 6E and associated page changes that incorporate the actions accordingly.

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

Sincerely,

A handwritten signature in cursive script that reads "Johnny W. Reising".

Johnny W. Reising
Director, Fernald Closure Project

Enclosures: As Stated

cc w/o enclosures
Jack Craig, EMCBC
Michelle Cullerton, Tetra Tech
Robert Everson, EMCBC
F. Johnston, S. M. Stoller
P. Mohr, Fluor Fernald, Inc

**RESPONSES TO THE
OHIO ENVIRONMENTAL PROTECTION AGENCY
COMMENTS ON THE FINAL CERTIFICATION REPORT
FOR AREA 6E**

**FERNALD CLOSURE PROJECT
FERNALD, OHIO**

MARCH 2007

U.S. DEPARTMENT OF ENERGY

However, CU18 still failed the UCL on the mean for radium-226 based on final laboratory data after the preliminary data had indicated passing conditions. Therefore, a risk assessment was performed for the residual radium-226 in CU18, which verified that the levels present are still below the acceptable risk of 10^{-4} . No further remediation was necessary for CU18. The certification details are provided in Section 2.0 and the evaluation of the data is in Section 5.0 of this document.

On the basis of this reported information and supporting project files, DOE has determined that no additional remedial actions are required in this portion of the site. The area will be considered certified when the U.S. Environmental Protection Agency and Ohio Environmental Protection Agency concur that certification criteria have been met. At that time, DOE intends to proceed with final land use activities as outlined in the Natural Resource Restoration Plan (DOE 2002).

DOE has restricted access to certified areas in order to maintain their integrity prior to final land use development. FCP procedure EP-0008 has been developed to implement the process that protects certified areas from becoming recontaminated.

1.4 SCOPE

The scope of this Certification Report includes the details of certification sampling, analysis, validation and statistical evaluation for soil samples collected from Area 6E. This area was divided into 12 Group 1 CUs, two Group 2 CUs, five underground storage tank (UST) CUs, and three Utility Trench CUs. The certification design for these 22 CUs follows the general approach outlined in Section 3.4 of the SEP.

1.5 OBJECTIVES

The objectives of this Certification Report are:

- Provide an overview of the precertification and remedial activities conducted in the Area 6E
- Describe the analytical methods, data validation processes, data reduction and statistical processes used to support the certification process
- Present the certification sampling results for the 19 CUs that make up the Area 6E and the three CUs that comprise samples collected from the bottom of utility trenches
- Present the statistical analysis showing that all 22 CUs have passed the certification criteria (i.e., FRL attainment and hotspot criteria)
- Describe access controls implemented to prevent recontamination.

1.6 REPORT FORMAT

This certification report is presented in five sections with supporting data and documentation in Appendices A and B. The sections of this report are as follows:

- Section 1.0 Introduction: Purpose, background, area description, scope, and objectives of the report
- Section 2.0 Certification Approach: The CU design and approach to sampling and analysis used for certification
- Section 3.0 Overview of Field Activities: Area preparation/survey, sampling and changes to work scope
- Section 4.0 Analytical Methodologies, Data Validation Processes and Data Reduction
- Section 5.0 Certification Evaluation and Conclusions
- Appendix A Statistical Analysis of Sample Data - Initial Sampling
- Appendix B Statistical Analysis of Sample Data - Secondary Sampling

combined into another distinct CU. This southern remainder was grouped and termed "CU08-11 Combined (SOUTH)". The resultant CU was evaluated and passed all certification requirements. Although the size of these redefined CUs is larger than a typical Group 1 CUs, the density across these CUs is greater than that of a typical Group 1 CU. Final certification data are presented in Appendix B.

CU10

This CU passed all certification requirements. Final certification data are presented in Appendix A.

CU12, CU13, CU14, CU15, CU16 and CU17

These CUs passed all certification requirements. Final certification data are presented in Appendix A.

CU18

After the initial round of sampling, this CU had a UCL on the mean slightly greater than the FRL (See Appendix A). Because of this condition, this widespread contamination was excavated throughout the CU targeting the highest concentration areas. In addition to that intensive excavation and as a conservative measure the CU with remaining soil was resampled at a much higher density (40 samples for this CU) to provide better coverage (Figure 5-2) and submitted for on-site gamma analysis. The resulting data were evaluated, which demonstrated that the 95% UCL on the mean still failing the certification requirements with a value of 1.726 pCi/g as compared to the FRL of 1.70 pCi/g. These preliminary statistics are shown in Appendix B. Further excavation of the five highest results was performed. With these concentrations removed from consideration the results from the remaining 35 preliminary samples were statistically evaluated, which demonstrated that this CU would pass all certification requirements (See Appendix B). Therefore, these samples were subsequently submitted to the off-site laboratory for analysis. Upon receipt of the off-site data, which showed differing results, a statistical evaluation was performed. This new statistical analysis demonstrated, once again, a failing condition for radium-226 with a 95% UCL on the mean of 1.806 pCi/g (See Appendix B). At this time, the infrastructure for further excavation was greatly reduced. Therefore, in an effort to demonstrate that this singular parameter does not provide an unacceptable risk to future land use, a separate residual risk assessment was performed. See section 5.2 below.

CU19

This CU passed all certification requirements. Final certification data are presented in Appendix A.

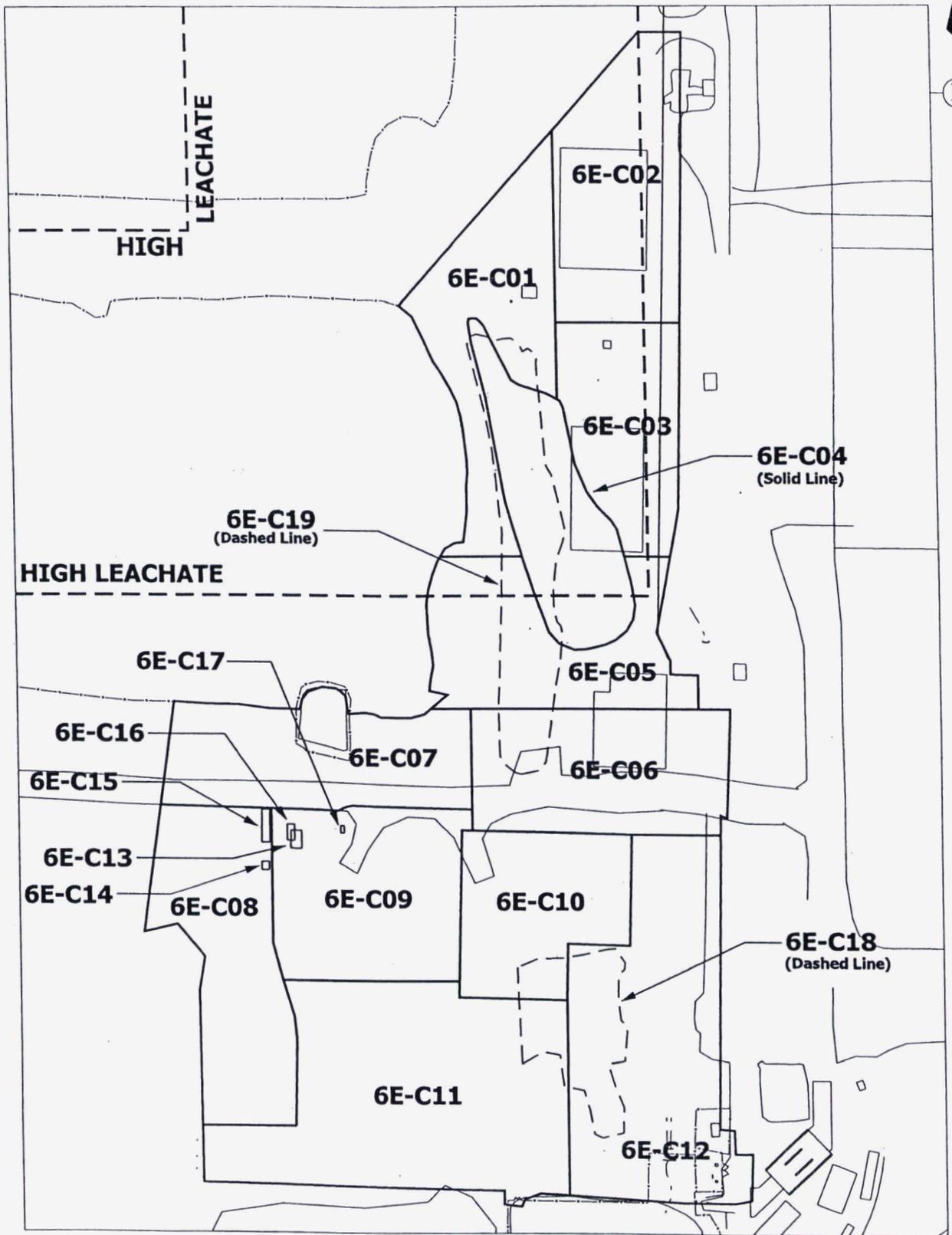
Utility Trench CUs

During utility removal, samples were collected from the bottom of the trenches to certify the soil footprint under the utilities. The data were partitioned into three CUs, and the results and statistical evaluation (if needed) are presented in Appendices A and B.

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STATE PLANAR COORDINATE SYSTEM 1983

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LEGEND:

— CU BOUNDARY

SCALE

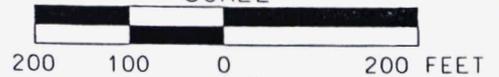


FIGURE 2-1. AREA 6E CERTIFICATION BOUNDARIES