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CH2MHILL

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SMO-121/06
February 16, 2006

Mr. Don Pfister, Director
Miamisburg Closure Project
U. S. Department of Energy
175 Tri-County Parkway
Springdale, OH 45246

ATTENTION: Paul Lucas

SUBJECT: **Contract No. DE-AC24-03OH20152: Deliverable #39 Potential release site and removal action documentation; Section C.2.3.1.3 Remaining Response Actions; PRS various (see below) Public Fact Sheet, Final**

Dear Mr. Pfister:

Attached are the following Final documents for your records:

- ✓ ▪ PRS 41: Area 3 Thorium Drum Storage/Redrumming Area Public Fact Sheet, Final
- PRS 405: Soil Contamination – Building 23 Public Fact Sheet, Final

If you or members of your staff have any questions regarding the documents, or if additional support is needed, please contact Dave Rakel at 937-865-4203.

Sincerely,

Michael D. Ebben
Site Manager

JL/jg

Enclosures

cc: T. Fischer, USEPA, (1) w/attachments
B. Nickel, OEPA, (1) w/attachments
R. Vandegrift, ODH, (1) w/attachments
J. Webb, ODH, (1) w/attachments
M. Wojciechowski, Tetra Tech, (1) w/attach
G. Gorsuch, DOE/MCP, (1) w/attachments
R. Tormey, DOE/OH, (1) w/attachments
G. Desai, DOE/HQ, (1) w/attachments
C. Kline, CH2M Hill, (1) w/attachments
F. Bullock, MMCIC (2) w/attachments
Public Reading Room (1) w/attachments

Admin Records, CH2M Hill, (2) w/attachs ✓
ER Records, CH2M Hill, (1) w/attachs
DCC (1) w/attachments
M. Ebben, CH2M Hill, w/o attachments
K. Armstrong, CH2M Hill, w/o attachments
D. Rakel, CH2M Hill, w/o attachments
D. Kramer, CH2M Hill, w/o attachments
MOAT Coordinator, CH2M Hill, w/o attachs
S. Barr, CH2M Hill, w/o attachments
M. McDougal, CH2M Hill, w/o attachments
file, CH2M Hill, w/o attachments

PRS 41: Area 3 Thorium Drum Storage/Redrumming Area

Background: PRS 41. Potential Release Site (PRS) 41, also known as the Area 3 Thorium Drum Storage/Redrumming area, is located on the west central portion of the site as shown on Figure 1. Process history of the PRS indicated the potential for the presence of thorium-232 from redrumming operation, & plutonium-238 from an historic waste line break that contaminated a drainage ditch within PRS 41.

Further Assessment (FA) of PRS 41 sampling was performed at PRS 41 during the later months of 2002 per the Core Team-approved Sampling & Analysis Plan (SAP). Contaminants of concern (COCs) were thorium-232 and plutonium-238.

Of the 92 samples from the PRS 41 area and the 10 samples from the PRS 41 ditch analyzed for the COCs, a total of 5 locations contained results above the cleanup objectives. Two of these results from the PRS 41 area were thorium-232 above the 2.1 pCi/g cleanup objective (max. result of 13.04 pCi/g) and 3 of the results from the PRS 41 ditch were plutonium-238 above the 55 pCi/g cleanup objective (max. result of 614 pCi/g). The results are summarized in the following table.

Confirmation of Salvage Area: Following demolition of Building 124, soil sampling will be performed per a Core Team-approved SAP to confirm that the historic isolated remediations met cleanup objectives. If results do not meet cleanup objectives, a soil RA and verification will be performed.

Analyte	Bkgd*	Maximum Concentration ⁵	Cleanup Objective**
Thorium-232+D	1.4	140	2.1
Thorium-230+D	1.9	276	2.8
Radium-226+D	2.0	46.9	2.9
Protactinium-231+D	0.11	46.7	4.0
Lead-210+D	1.2	62.8	7.4
Actinium-227+D	0.11	80.7	4.6

*background soil concentration **risk criteria

Analyte	Bkgd*	Maximum Concentration	Cleanup Objective**
Thorium-232+D	1.4	140	2.1
Plutonium-238	0.13	614	55

*background soil concentration **risk criteria

This Fact Sheet satisfies the Public Notification requirement set forth in the Contingent Action Memorandum¹.

Based on the above results, the Core Team recommended⁶ a **Removal Action (RA)** per the Contingent Action Memo¹. RA COCs are Pu-238 & Th-232+daughter isotopes.

The review of information for PRS 63⁴ identified work within the boundary of PRS 41 needed to assure the area is protective of human health.

Background: Former Salvage Area. A former salvage area where scrap wood and metal were stored is partially within PRS 41. Two isolated locations within this salvage area were identified & removed as part of Building 124 construction activities. Maximum results for the removed soil are identified in the table below (pCi/g).

PUBLIC FACT SHEET

PRS 41: Area 3 Thorium Drum Storage/Redrumming Area

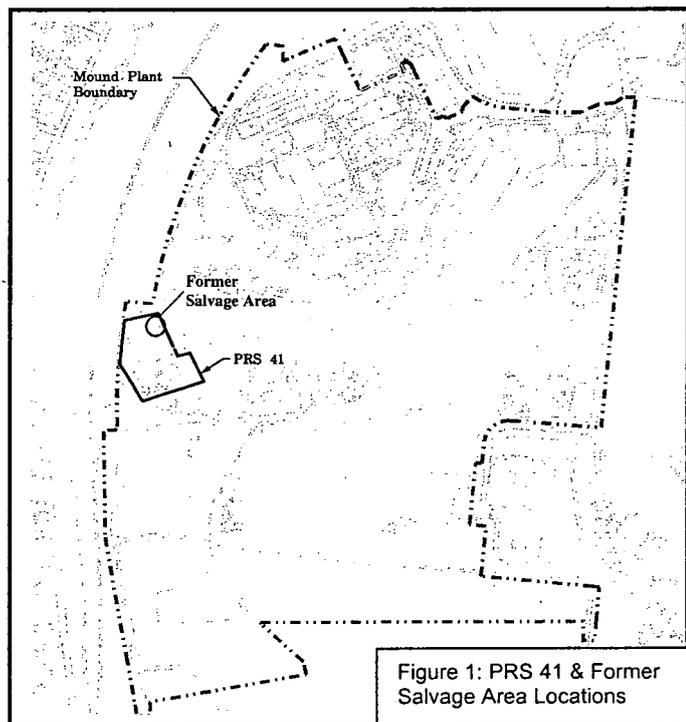
The **Work Plan** for Contingent Removal Actions, supplemented by the Unique Work Package, includes procedures, instructions, and applicable permits and notifications required to safely conduct the work. Erosion and runoff/runoff controls will be managed per the SWP3.

The **RA for PRS 41** will consist of excavation of contaminated soils at isolated areas (for thorium) and a short segment of the ditch (for plutonium) identified by the sample results above the cleanup objectives. The **RA for the Former Salvage Area** will be commensurate with confirmation results above cleanup objectives, if any. Post-excavation sampling will be performed within the excavations per the Core Team-approved Verification Sampling & Analysis Plan (VSAP).

Schedule. This Fact Sheet will be in public review for 30 days, ending January 4, 2004. The RA is planned to begin in winter 2004. A summary of the RA & the verification data will be included in the On-Scene Coordinator (OSC) Report. The OSC Report will be placed in the public reading room after the conclusion of the verification sampling and approval by the Core Team.

Excavation at PRS 41 of approximately 4,000 yd³ (3,057 m³) & verification are expected to cost less than \$170,000.

Confirmation sampling at PRS 41 Salvage Area is expected to cost less than \$10,000. Additional information can be found in the public reading room, or by contacting Danny Punch at 847-8350 ext. 301.



- 1: Action Memorandum/Engineering Evaluation/Cost Analysis, Contingent Removal Action for Contaminated Soil, June 2002, Final
- 2: Standard Work Package for Contingent Removal Actions, November 2001, Final
- 3: Storm Water Pollution Prevention Plan
- 4: PRS 63 Data Package, Final, November 2003
- 5: Radiological Survey Data Sheet, 97-SMP-054, December 4, 1997
- 6: PRS 41 Data package, Final, June 2003

MIAMISBURG CLOSURE PROJECT

**CONTINGENT REMOVAL
ACTION
PUBLIC FACT SHEET**

The following document is available for public review in the CERCLA Public Reading Room, 305 E. Central Ave., Miamisburg, Ohio. Public comment will be accepted December 5, 2003 through January 4, 2004.

**PRS 41: Area 3 Thorium Drum
Storage/Redrumming Area**

PUBLIC FACT SHEET

Questions can be referred to Danny Punch at
(937) 847-8350 ext. 301

U.S. Department of Energy
U.S. Environmental Protection Agency
Ohio Environmental Protection Agency