



CH2MHILL

CH2M HILL

Mound, Inc.

1 Mound Road

P.O. Box 3030

Miamisburg, OH

45343-3030 ER-096/03

August 26, 2003

Mr. Richard B. Provencher
Director, Miamisburg Closure Project
U.S. Department of Energy
500 Capstone Circle
Miamisburg, OH 45342

SUBJECT: Contract No. DE-AC24-03OH20152
Contract Deliverable 039 – PRS Documents
BUILDING 38 ACTION MEMO: ADDENDUM 1, FINAL

Dear Mr. Provencher:

The attached Final Building 38 Action Memo, Addendum 1, has been approved for distribution by Danny Punch of your staff. The document has been reviewed by the public, and responses to public comments have been approved by the Core Team. The document distribution is in accordance with the Federal Facility Agreement and is provided to these agencies and organizations for their files.

If you or members of your staff have any questions regarding the attached documents, or if additional support is needed, please contact me at (X4543).

Sincerely,

Monte A. Williams
Deputy Project Manager, Environmental Restoration

MAW/KMA/jg

Enclosures

cc: David Seely, USEPA, (1) w/attachment
Mary C. Wojciechowski, Tetra Tech EM, Inc., (1) w/attachment
Brian Nickel, OEPA, (1) w/attachment
Ruth Vandegrift, ODH, (1) w/attachment
Paul Lucas, DOE/MCP, (1) w/attachment
Danny Punch, DOE/MCP, (1) w/attachment
Lisa Rawls, DOE/MCP, w/o attachment
Randy Tormey, DOE/OH, (1) w/attachment
Terry Tracy, DOE/HQ, (1) w/attachment
J. D. Bonfiglio, MESH, (1) w/attachment
Monte Williams, BWXTO, (2) w/attachment
John Fulton, CH2M HILL, w/o attachments
Gene Valett, CH2M HILL, w/o attachments
Public Reading Room, (4) w/attachment
Admin Records, (2) w/attachment
DCC, (1) w/attachment

BUILDING 38 REMOVAL ACTION

ACTION MEMORANDUM

ADDENDUM 1

Final
August 2003



The Mound Core Team
P.O. Box 66
Miamisburg, Ohio 45343-0066

July 2003

Mr. Daniel Bird, AICP
Planning Manager
Miamisburg Mound Community Improvement Corporation
720 Mound Road
COS Bldg. 4221
Miamisburg, Ohio 45342-6714

Dear Mr. Bird:

The Core Team, consisting of the U.S. Department of Energy Closure Project (DOE-MCP), U.S. Environmental Protection Agency (USEPA), and the Ohio Environmental Protection Agency (OEPA), appreciates your comments on the Building 38 Action Memorandum Addendum 1 Public Review Draft. Attached is our response.

Should the response to comments require additional detail, please contact Paul Lucas at (937) 847-8350 extension 314 and we will gladly arrange a meeting or telephone conference.

Sincerely,

DOE/MCP:	<u>Paul Lucas</u>	<u>7/16/03</u>
	Paul Lucas, Remedial Project Manager	date
USEPA:	<u>David P. Seely</u>	<u>8/20/03</u>
	David P. Seely, Remedial Project Manager	date
OEPA:	<u>Brian K. Nickel</u>	<u>7/16/03</u>
	Brian K. Nickel, Project Manager	date

Response to Public Comments

from MMCIC
on Building 38 Action Memorandum Addendum 1
Public Review Draft May 2003

Comment 1. From our review of the Building 38 Action Memorandum Addendum 1 Public Review Draft, MMCIC concurs that efficiencies with remediation, verification and reporting justifies the inclusion of PRSs 267, 273 and 303 in this removal action. In addition, as this area is part of the reuse of the site, MMCIC would appreciate the opportunity to coordinate with DOE and the cleanup contractor any anticipated work activities in this area.

Response 1. Thank you for your interest and support of the removal action. The opportunity to coordinate PRS work activities with DOE and CH2M Hill will be available through the normal venues that include weekly project meetings and monthly FFA, Core Team, and MRC/MAC meetings.

Comment 2. As with our comments of the original Building 38 Removal Action Plan, dated July 1999, MMCIC requests to be updated on the removal action progress. We understand that there may no be specific work plans for each PRS, but as the work plan becomes available for each Phase of activity, MMCIC would appreciate a copy.

Response 2. The opportunity to keep updated on removal action progress exists through the weekly project meetings with DOE/MCP and CH2M Hill and the monthly FFA, Core Team, and MRC/MAC meetings. DOE and the cleanup contractor have not routinely made the work plans public documents. However, requests for specific work plans that may impact MMCIC or its tenants may be requested at the aforementioned meetings.

Comment 3. It is MMCIC's understanding that after the remediation process is complete, the area will be restored to an appropriate condition in accordance with the *Mound Reuse Plan*.

Response 3. The Core Team understands MMCIC's request and encourages MMCIC to meet with DOE to obtain an agreeable end state.

June 4, 2003



MIAMISBURG CLOSURE PROJECT ACTION MEMORANDUM

Notice of Public Review Period



The following document is available for public review in the CERCLA Public Reading Room, 305 E. Central Ave., Miamisburg, Ohio. Public comment on this document will be accepted June 4, 2003 through July 4, 2003.

Building 38 Action Memorandum

Addendum 1

(Building 38 Action Memorandum was previously approved. Addendum 1 is written to add 3 Soil removal actions to the scope of work.)

Questions can be referred to Paul Lucas at (937) 847-8350 extension 314

RECOMMENDATION

This decision document represents concurrence to incorporate PRSs 267, 273, and 303 into the Building 38 Removal Action. Presentation of the information in this addendum models the approved Building 38 Action Memorandum that was prepared in accordance with CERCLA as amended by SARA, and not inconsistent with the NCP. This decision is based on the administrative record for the site.

Information provided in this Addendum 1 is consistent with actions already proposed for Building 38 and we recommend that they be initiated as described herein.

Paul Lucas

6/3/03

Paul Lucas, OSC
U.S. Department of Energy
Miamisburg, Ohio

David P. Seely

6/3/03

David Seely, RPM
USEPA
Chicago, Illinois

Brian Nickel

6/3/03

Brian Nickel
OEPA
Dayton, Ohio

PURPOSE:

The purpose of this addendum is to add three Potential Release Sites (PRSs) to those included in the Building 38 Action Memorandum (AM, Reference 1). Justification for adding the three PRSs to the existing Action Memo is as follows:

- the three PRSs are located in the immediate vicinity of the Building 38 removal actions,
- the contaminants for these PRSs are the same as those for the soil removal/verification in the existing action memo,
- combining like work scopes increases efficiencies in budget and use of manpower and allows for a potential reduction in overall schedule duration, and
- combining local PRSs into one Action Memo affords streamlining of sampling and reporting documentation.

The approach used to add the three PRSs into the Building 38 Action Memo is to identify sections in the Building 38 Action Memo where additional information would be presented and provide the introduction as an attachment to this addendum for ease in comparison to the parent document. The additional information required includes updates to:

- Section 2, Site Conditions and Background,
- figure of PRS locations,
- Table 5.1 PRSs to be dispositioned
- Section 5.1.1, Proposed Action Description, Phase II,
- Section 5.1.7 Project Schedule, and
- Section 5.2 Estimated Costs, and
- Section 9 Recommendation (see new Recommendation Page for Addendum 1)

The Building 38 Action Memo was generated to include Building 38, the stack, and contaminated soil in the vicinity. Included herein are two tables, one for building superstructure-related PRSs and one for soil/slab-related PRSs.

REFERENCES:

- 1) Action Memorandum, Building 38 Removal Action, January 2002, Final, Rev. 2.

PREPARED BY:

Karen M. Arthur, CH2MHill, ER QA
Denny Gault, CH2MHill, ER Technical Staff

2. SITE CONDITIONS AND BACKGROUND

2.1 SITE DESCRIPTION

This section describes the physical site location, site characteristics, and release of contaminants into the environment.

2.1.1 Physical Location

The Miamisburg Closure Project is a site on the southern border of the city of Miamisburg in Montgomery County, Ohio. The additional removal action is proposed for PRSs 267, 273, and 303 (Figure 1). ***All other PRSs listed in Tables 5.1 and 5.2 are accounted for in the Building 38 Action Memorandum.***

2.1.2 Site Characteristics

PRS 267 (also known as Area 9) is the site of thorium redrumming that occurred from the mid 1950s to the early 1960s. Historical documents indicate thorium-232 redrumming operations at PRS 267 resulted in approximately 40,000 square feet of radiological contamination. The heavily contaminated surface soils from PRS 267 were excavated and relocated to the west side of the road, Area 8 hillside [PRS 266], in 1965. PRS 267 was later backfilled with clean soil and covered with asphalt. Building 31 was constructed in 1966 and was originally used to repack drums of thorium sludge. Building 31A was constructed in 1986 to accommodate Waste Management operations. The buildings are currently used to stage both alpha and beta solidified and packaged wastes prior to shipment to offsite disposal locations.

Further Assessment results revealed that removal of thorium-232 contaminated soil at isolated locations is warranted. Plutonium-238 was also detected above 10^{-5} Risk-Based Guideline Value levels at isolated locations.

PRS 273 (also known as Area 12) is an area of soil contamination located west of Building 38 and the former Special Metallurgical (SM) Building. PRS 273 covers approximately 19,000 square feet and is the site of 1965 disposition of thorium-232 contaminated soil from Area 1 and thorium-232 and plutonium-238 contaminated soil from SM Building. Soil sample results for plutonium-238 and thorium-232 at unacceptable levels prompted the Core Team to recommend the removal action.

The Waste Transfer System (WTS) pipeline (now removed) which carried radioactive waste from Building 38 to the Waste Disposal Building (WD) passed through the west side of PRS 273 but was binned No Further Assessment.

PRS 303 (also known as Warehouse 14) was identified as a potential release site as a result of historical information on operations conducted within it. The historical data suggests that Warehouse 14 was built sometime prior to 1958, and was utilized for storage of equipment destined for disposal, drums of recoverable plutonium-238 and drums of contaminated trash. The building was visible in the 1965 photo, and plant photographs indicate the building no longer existed in 1968. No records of decommissioning exist. A concrete foundation slab is still present.

Nearly half of the warehouse foundation is included within the limits of PRS 285, a removal action for plutonium-238. Since the slab will be removed as part of the Building 38 slab removal, soil below the warehouse slab will be removed and verification sampling performed for local contaminants of concern (COCs, plutonium-238 and thorium-232) to confirm remaining soil is at acceptable levels.

Included in Table 5.1 are all of the PRSs and related cleanup objectives associated with soil/slab removals. This addendum introduces PRSs 267, 273, and 303. All other PRSs in Tables 5.1 and 5.2 are already accounted for in the Building 38 Action Memo. All of the PRSs listed will be dispositioned via an OSC Report.

Table 5.1 PRSs to be Dispositioned Soil Removals

PRS	Description	COCs	Cleanup Objective
267	Area 9, Former Thorium Storage/Redrumming Area	Pu-238 & Th-232	(pCi/g) Pu-238 = 55 Th-232 = 2.1 Po-210=7.4** Sr-90 = 94.7 Cs-137 = 3.8
273	Area 12, Thorium-contaminated Soil form Area 1	Pu-238 & Th-232	
303	Warehouse 14 Foundation	Pu-238 & Th-232	
77	Former Warehouse 10 Footprint	Po-210	
78	Former Warehouse 11 Footprint	Reactor waste, Sr-90 & Cs-137)	
285	Area 11, Contamination from SM Bldg. Operations	Pu-238	
287	SM Bldg. Historic Septic Tank (tank 241) -removed	Pu-238	
288	Area 17, SM Bldg. Soils	Pu-238 & Th-232	
289-292	SM Bldg. Alpha Wastewater Sumps (tanks 210-213) - all four removed	Pu-238	
293	Footprint of Former SM Bldg. Solidification Unit	Pu-238	
296	Bldg. 38 West Dock Sump (tank 25)*	Pu-238	
299	EG-2 Diesel UST (tank 121). Tank removal and soil sampling is regulated under AOC 1301:7-9-13. The required BUSTR (Bureau of Underground Storage Tank Regulations) Remedial Action Plan contains COCs and action levels related to this tank. Plan pending approval by the state fire marshal.		

* The location of PRS 296 was improperly identified as the out-of-service concrete stormwater holding tank across the roadway. The location has been corrected. Although not a PRS, the stormwater tank sediment, if any, will be sampled to confirm it does not contain unacceptable levels of contaminants. Following confirmation via sampling, the tank will be demolished and the area backfilled to grade.

** Assumes Po-210 & Pb-210 present.

Included in Table 5.2 are all of the PRSs associated with building superstructure demolition and disposition, all of which are included in the Building 38 Action Memo. Cleanup objectives for Building PRSs are presented in the Building 38 Action Memorandum. All of the PRSs listed will be closed out via an OSC Report.

Table 5.2 PRSs to be Dispositioned with Building 38 Removal

PRS	Description
294	WS Bldg. Solidification Unit
295	Bldg. 38 Solid Radioactive Waste Compactors
297 & 298	Bldg. 38 Alpha Wastewater Sumps (tanks 26 & 27) – above ground tanks
301	In-Line Incinerator
305	Building 38 Stack
326	Sanitary Sump (tank 254)

5.1.1 Proposed Action Description, Phase II

- Phase II: Remove Associated Foundations and Soil

The foundation for Warehouse 14 (PRS 303) and the out-of-service stormwater tank will also be demolished and disposed of properly.

- Phase II: Verification

Confirmation sampling will be conducted within the additional areas to confirm plutonium-238 and thorium-232 are below cleanup objectives. A DOE, USEPA, and OEPA-approved Verification Sampling and Analysis Plan(s) (VSAP) will further define the verification sampling and analysis process. Since multiple contaminants are present, the data will need to be reviewed to determine if cumulative risk is acceptable.

Due to the number of PRSs and analytes, specific analytes will need to be specified for specific areas (PRSs) within the specific Verification Sampling and Analysis Plans (VSAPs). These VSAPs will be submitted in one document to the Core Team for review and approval. Each area will be considered separately and each PRS will retain COCs identified in Table 5.1. If information is realized before or during the course of the removal action that could change the COCs verified, the information will be brought to the attention of the Core Team for evaluation.

5.1.7 Project Schedule

The schedule established for planning and implementation of the removal and sampling activities for all of the PRSs in Table 5.1 is summarized below.

Anticipated Schedule

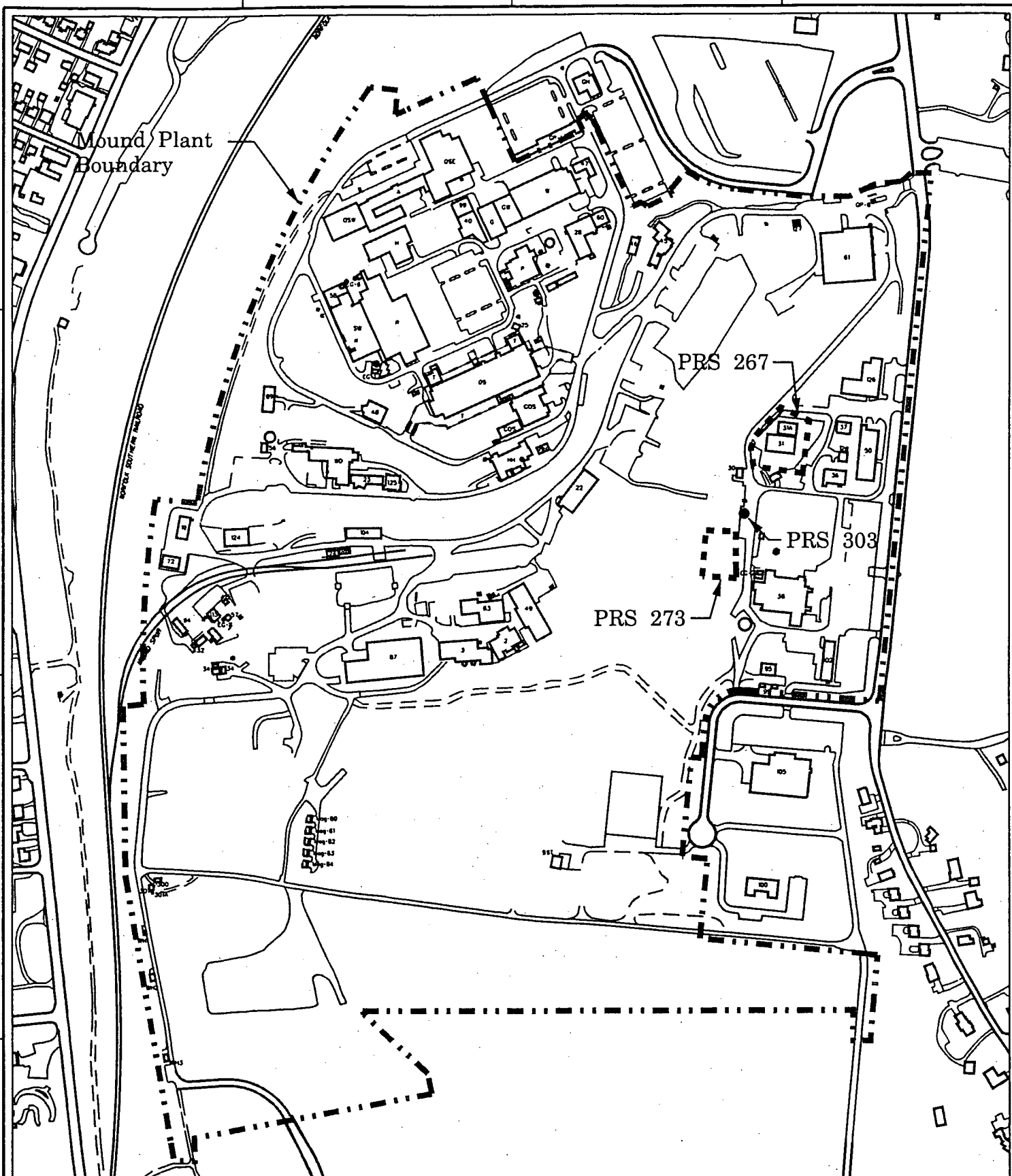
Activity	Start Date	Completion Date
Work Planning	01 Apr 03	23 Feb 04
Removal Field Activities	13 Aug 03	29 Jun 04
Verification Sampling/Backfilling	6 Oct 03	31 Aug 04
Closure Documents	21 Apr 04	04 Jan 05

5.2 ESTIMATED COSTS

The cost estimate to perform removal and sampling activities for all of the PRSs in Table 5.1 is shown below.

COST ESTIMATE

Activity	Cost (\$)
Work Planning	57,129
Removal Field Activities	864,254
Verification Sampling/Backfilling	118,375
Waste Disposal	3,987,227
Closure Documents	14,282
Total	5,041,267



Legend



Structures



Paved roadway



Unpaved roadway



Mound Plant boundary



Railroad

0 100 200 400 600 800 1000
Scale in Feet



MOUND



Environmental
Restoration
Geographic
Information
System

SHEET	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
ISSUE																						
SHEET	1	2	3	4	5	6	Figure 1 Location of PRS 267, 273 & 303															
ISSUE																						
PART CLASSIFICATION																						
ORIGINAL CLASSIFICATION							SIZE	DRAWING NUMBER										JOB NUMBER				
UNCLASSIFIED								gen_site_plan.dgn														
DWG TYPE		STE		PRNG		ER-GIS		SCALE		SCALE		SHEET 1 OF										
STATUS MD-REL		- 000 / 000 / 000		ORGN		MSTATION / J																

Figure 1
Location of PRS
267, 273 & 303

02/04/03

SSP

ISS	DATE	REVISION	BY	CHKD	ENG	LMCC	APVD	II
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