

3006-0605010004



CH2MHILL

CH2M HILL
Mound, Inc.
1 Mound Road
P.O. Box 3030
Miamisburg, OH
45343-3030

ER/WM-044/05
January 26, 2005

Ms. Margaret L. Marks, Director
Miamisburg Closure Project
U. S. Department of Energy
1075 Mound Road
Miamisburg, OH 45342

ATTENTION: Paul Lucas

SUBJECT: Contract No. DE-AC24-03OH20152
Statement of Work Requirement 055 - Regulator Reports
GUARD POST 8, CLOSEOUT REPORT, FINAL

Dear Ms. Marks:

Attached is the following Final document for your records:

- Guard Post 8, Closeout Report, Final

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

Sincerely,

David A. Rakel
CERCLA Lead

DAR/ms

Enclosures

- cc: Tim Fischer, USEPA, (1) w/attachments
 Brian Nickel, OEPA, (1) w/attachments
 Ruth Vandegrift, ODH, (1) w/attachments
 Mary Wojciechowski, Tetra Tech, (1) w/attach
 Frank Schmaltz, DOE/MCP, (1) w/attachments
 Lisa Rawls, MCP, w/o attachments
 Randy Tormey, DOE/OH, (1) w/attachments
 Git Desai, DOE/HQ, (1) w/attachments
 Frank Bullock, MMCIC, (3) w/attachments
 Public Reading Room, (4) w/attachments

- CERCLA Records, CH2M Hill, (1) w/attachs
 Chris Watson, CH2M Hill, (1) w/attachs
 ER Records, CH2M Hill, (1) w/attachs
 Admin Record (2) w/attachments
 DCC (1) w/attachments
 John Lehew, CH2M Hill, w/o attachments
 Dave Rakel, CH2M Hill, w/o attachments
 Val Darnell, CH2M Hill, w/o attachments
 Bo Wier, CH2M Hill, w/o attachments
 file

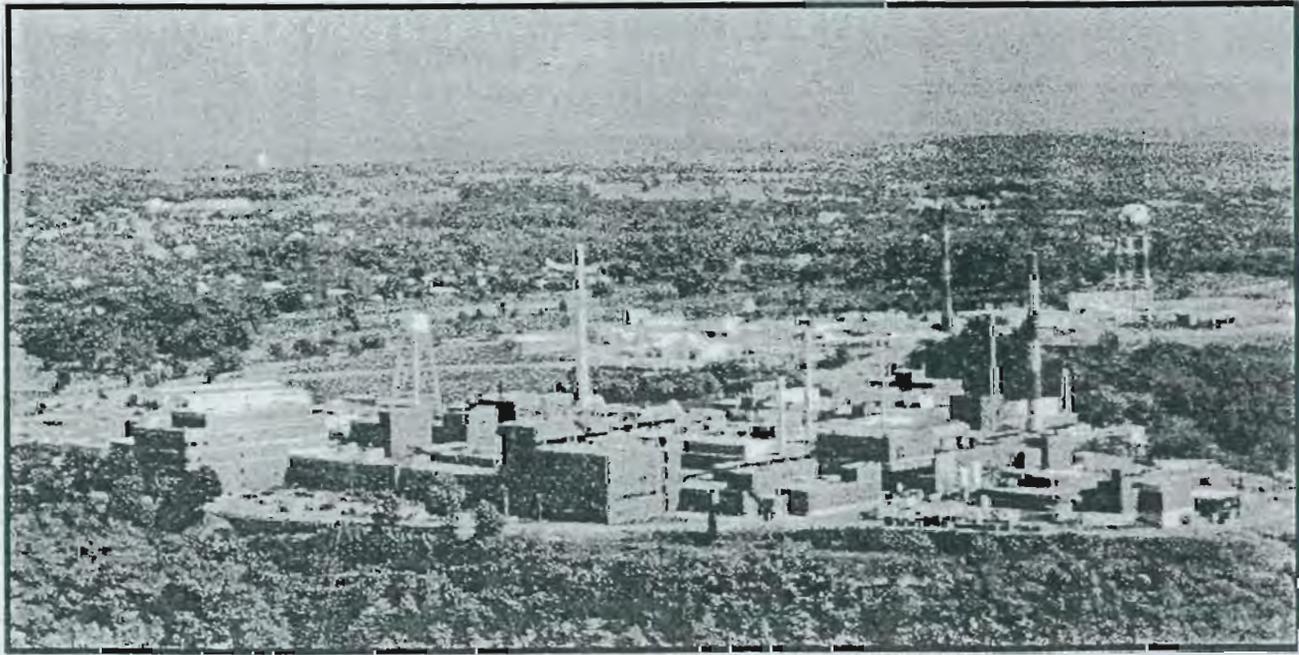
3006-0605010004



Environmental
Restoration
Program



Miamisburg Closure Project
CLOSEOUT REPORT
Guard Post 8
(Demolition)
Final
January 2005



Guard Post 8

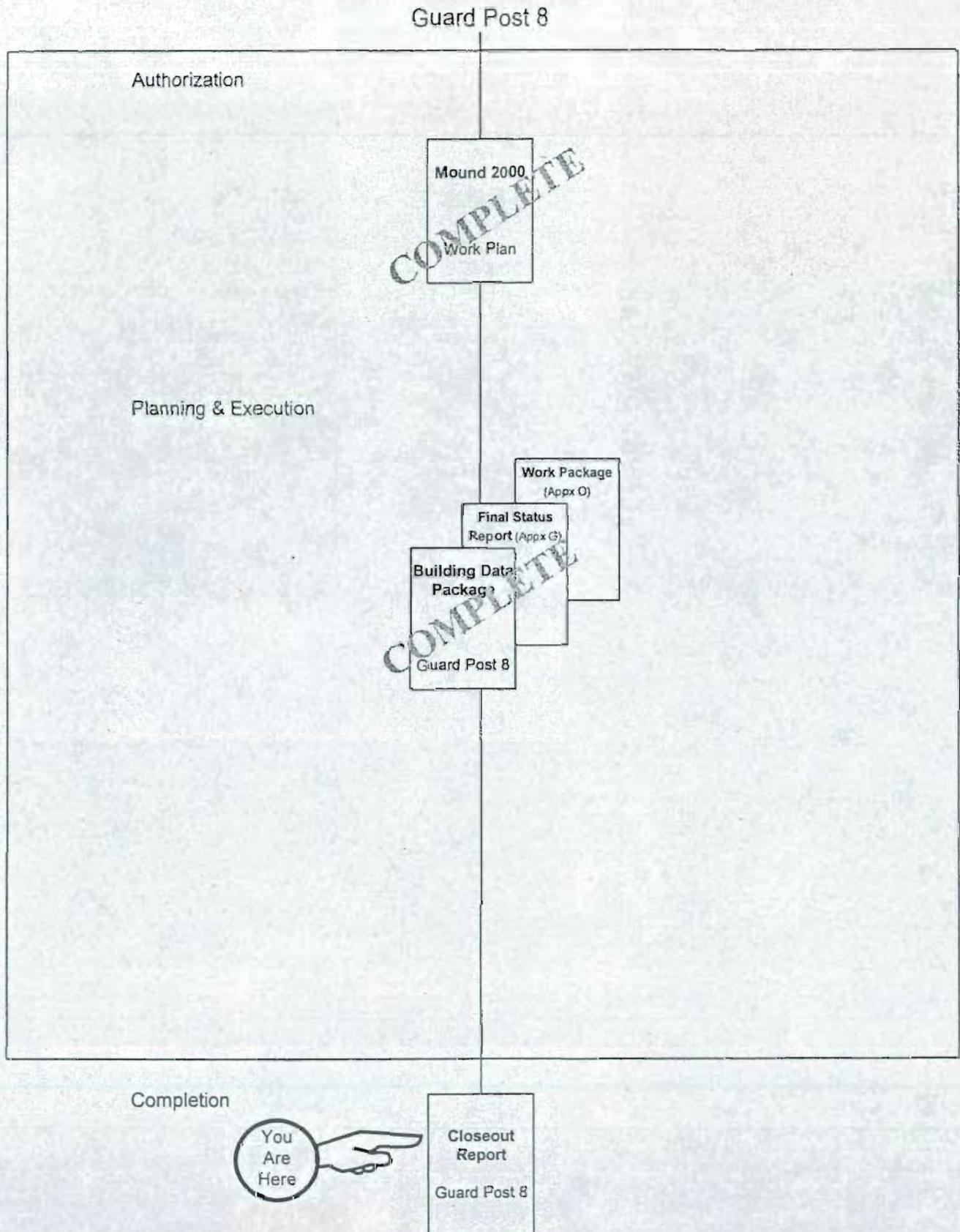


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1.0 PURPOSE

This is the final report documenting completion of the demolition of Guard Post 8 located at the Department of Energy (DOE) Miamisburg Closure Project (MCP) Site, as shown in the figures provided in Appendix A. Guard Post 8, including the slab apron, was removed to three feet below grade, in accordance with the Work Package Demolition BOSS-40378. A copy of the Work Package was included in Appendix O of the Building Data Package (BDP) for Guard Post 8. The scope of work relating to this building is considered complete. Site restoration has been completed.

2.0 BACKGROUND

2.1 Guard Post 8

Guard Post 8 was one of the plant entrance points. It was situated in the northeast portion of the site and was located at the eastern boundary fence of the plant site. The building footprint occupied approximately 96 square feet of floor space.

Guard Post 8 was a 12-ft X 8-ft, factory assembled, PAR-KUT Model 128R steel booth that was initially set-in-place at a location about 15 feet to the east of its current location in 1983. The guard post was moved to its current location in about 1991, when the guard post "island" was restructured. The guard post's walls were constructed of welded interior and exterior galvanized steel panels which sandwich 2-inch thick fiberglass insulation panels. The exterior walls were constructed of welded 14-gage steel panels and the interior walls were constructed of 18-gage welded steel panels. The steel interior and exterior surfaces were painted with a rust-inhibiting epoxy primer and a finish coat of industrial acrylic epoxy. Two metal doors, one each on the north and south sides of the structure, provided access to the booth. The base of the guard post was constructed of 12-gauge galvanized steel, 4-way tread plate. On top of the steel base plate was a floor covering of plywood sheeting covered with vinyl tile. The ceiling of the guard post was suspended ceiling tiles. The cavity between the ceiling and the roof was insulated with rock wool. The interior of the guard post was divided into two areas: an "L" shaped main area and a lavatory area. The 3-ft. X 5-ft. lavatory contained a toilet and sink. Around the perimeter of the guard post (except the lavatory area) and in the doors were windows with tempered bronze glass. The roof of the guard post was 14-gauge galvanized steel sheet. Roof seams were continuously welded (around roof perimeter), caulked, and weatherproofed. Lifting rings were welded to the roof for transport/lifting of unit. Around the perimeter of the roof was a canopy constructed of 14-gauge galvanized steel with a 6-inch tall fascia. The canopy overhang extended 3" beyond the guard post walls. Rainwater was drained from the roof by a downspout at the northeast corner of the guard post.

The guard post was on the west end of a 15-foot X 54-foot X 6-inch thick concrete slab area. Anchor bolts secured the guard post to concrete foundation walls through four 1/4" steel angle anchor clips at each corner of the guard post's base. Under the footprint of the guard post was a reinforced concrete perimeter foundation wall. The 12' 4" X 8' 4" perimeter foundation wall was 6-inches thick by 28-inches tall. The foundation wall was reinforced with #4 rebar on 12-inch centers vertically and horizontally. The vertical rebar

extended down from the wall into a 2-foot wide X 1-foot tall continuous concrete footer. The footer was also reinforced with one layer of #4 rebar on 12-inch centers transversely and 9-inch centers longitudinally. Interior to the perimeter foundation wall (and under the guard post) was a 6-inch thick reinforced slab. To the southeast of the guard post were concrete equipment pads for a security card reader stand and a security gate arm pedestal. The concrete equipment pads were identical. They consisted of a 3-foot deep, 24-inch diameter pillar with a 20-inch X 20-inch square top that was 4-inches thick, each constructed using a monolithic pour. To the north of the guard post was a concrete entrance lane island for a security card reader stand and a security gate arm pedestal. The entrance lane island was originally a 30-foot X 3-foot X 6-inch concrete slab on grade with rounded ends. Three to four feet of the west end was cut off on the diagonal for a cross walk.

Guard Post 8 was climate controlled via electric heater and air-conditioning units built into the walls of the guard post. Electric service to Guard Post 8 was 240-Volts. The guard post had 120-Volt fluorescent light fixtures. A grounding cable ran from the guard post (connected to the inner and outer metal walls) to the grounding circuit of Building 61. The building had potable water and sanitary services. There were no storm drains to the building and rainwater drained to the concrete pad on the northeast side of the guard post. The control panel for the security gate arm and fence-closure circuitry was located in the guard post.

Guard Post 8 was originally set-in-place (pre-fabricated structure) in 1983 and used solely as a guard post. In 1991, the guard post was moved to its current location. The building was not contaminated with either radiological or energetic materials and no hazardous wastes were generated in the guard post.

2.2 Potential Release Sites (PRSs)

As a result of the investigations and documentation accomplished to comply with the CERCLA cleanup process via the Federal Facilities Agreement (FFA)/DOE Environmental Restoration (ER) Program, DOE and the site contractor tabulated all the PRSs identified under the various regulatory programs in effect at the site. Of these PRSs, one is near Guard Post 8, as identified in Table 1. The PRS locations are shown in Figure 2 and the recommendation sheet is provided in Appendix C.

Table 1: PRSs in Proximity to Guard Post 8

PRS	CERCLA or Bldg. Related	Binning Status	Comments
403	CERCLA	NFA	Elevated soil gas results from the OU5 Operational Area Non AOC Phase I Investigation.

NFA: No Further Assessment.

3.0 ACTIONS TAKEN

The Guard Post 8 BDP was submitted for simultaneous Core Team and public review on 16 November 2004, and the 30-day public review period concluded on 19 December 2004. The demolition of the Guard Post 8 commenced on 11 December 2004 and the site restoration was completed on 15 December 2004. Photographs taken of the before, and after demolition are provided in Appendix A.

A Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM) study of Guard Post 8 was performed prior to demolition. The study reports (provided in Appendix G of the Final BDP) provide details of the survey design and results and indicate that Guard Post 8 met applicable surface release criteria.

No post-demolition surveys were required to be performed as no residual contamination was found on structure surfaces. Following demolition, radiological surveys of the slab debris were performed. Copies of the radiological surveys are provided in Appendix B.

Material disposition is listed in Table 2. Building debris was loaded into haulers and taken for recycle. Concrete was recycled on site as fill after crushing.

This Closeout Report documents the completion of the demolition and removal of Guard Post 8. All preparation and demolition activities were performed in accordance with the detailed work plan.

Table 2 – Materials Disposition

Building GP-8 Material	Quantity	Disposal Method	Destination
Clean Hard Fill Debris (concrete) Slab	2 cubic yards	Reused Onsite	Concrete Crusher
Scrap Metals	4 cubic yards	Recycle	Metal Shredders

4.0 PROBLEMS ENCOUNTERED

Guard Post 8 was successfully demolished per the Work Package. No problems were encountered.

5.0 RESOURCES COMMITTED

5.1 Personnel Organization

Table 3 lists the personnel organization for the demolition.

Table 3 - Personnel Organization for the Demolition

Agency or Party Involved	Contact	Description of Participation
US EPA (SR-6J) 77 W. Jackson Chicago, IL 60604 312-886-7058	Tim Fischer	Federal agency responsible for MCP oversight.
Ohio EPA 410 E. Fifth Street Dayton, OH 45402-2911 937-285-6468	Brian Nickel	State agency responsible for MCP oversight.
DOE/ MCP P.O. Box 66 1 Mound Road Miamisburg, OH 45343-0066 847-8350, ext. 304	Frank Schmaltz	DOE/ MCP Project Manager responsible for project oversight and success.
CH2M Hill Mound, Inc. SMPP-TFV Project P.O. Box 3030 1 Mound Road Miamisburg, OH 45343-3030 937-608-8007	Chris Watson	Provided the DOE/ MCP Project Demolition Manager with technical assistance, administrative support, sampling, decontamination, photo and site documentation, site safety, and report preparation. Provided the equipment/personnel necessary for the demolition and performed the building demolition and site restoration.

5.2 Demolition Cost

Under the new site contract, CH2M Hill Mound, Inc. has elected to cluster financial data for multiple buildings together. GP-8 is the only building in Cluster GP. The total cluster costs are presented in Table 4.

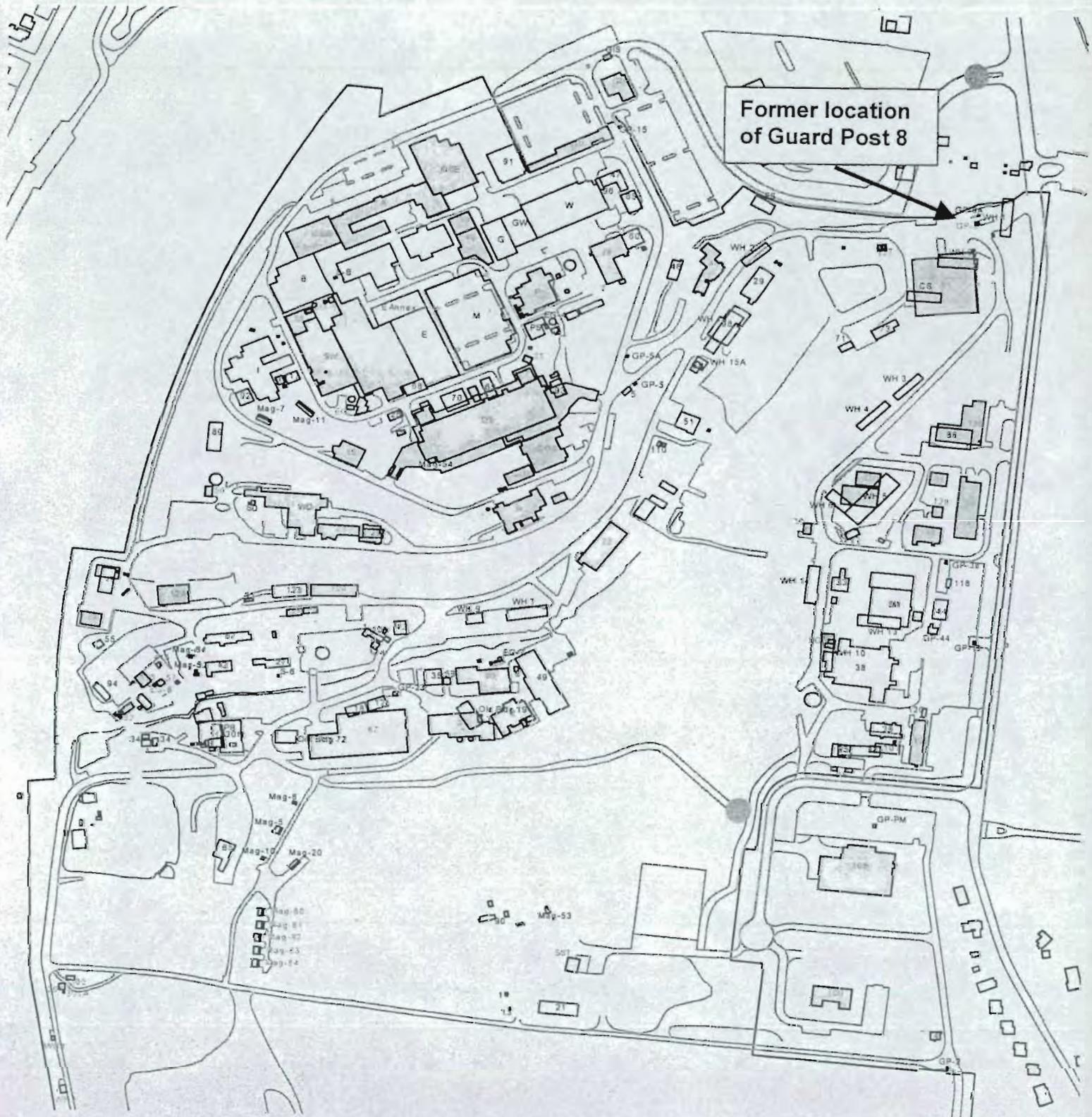
Table 4: Cluster GP Total Costs

Activity	Cost
Work Planning	\$4K
Facility Prep	\$7K
Demolition	\$5K
Total	\$16K

APPENDIX A

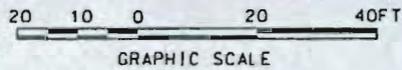
Figures

Figure 1 – Location of Guard Post 8





-  PRS Point
-  PRS Area
-  PRS Line

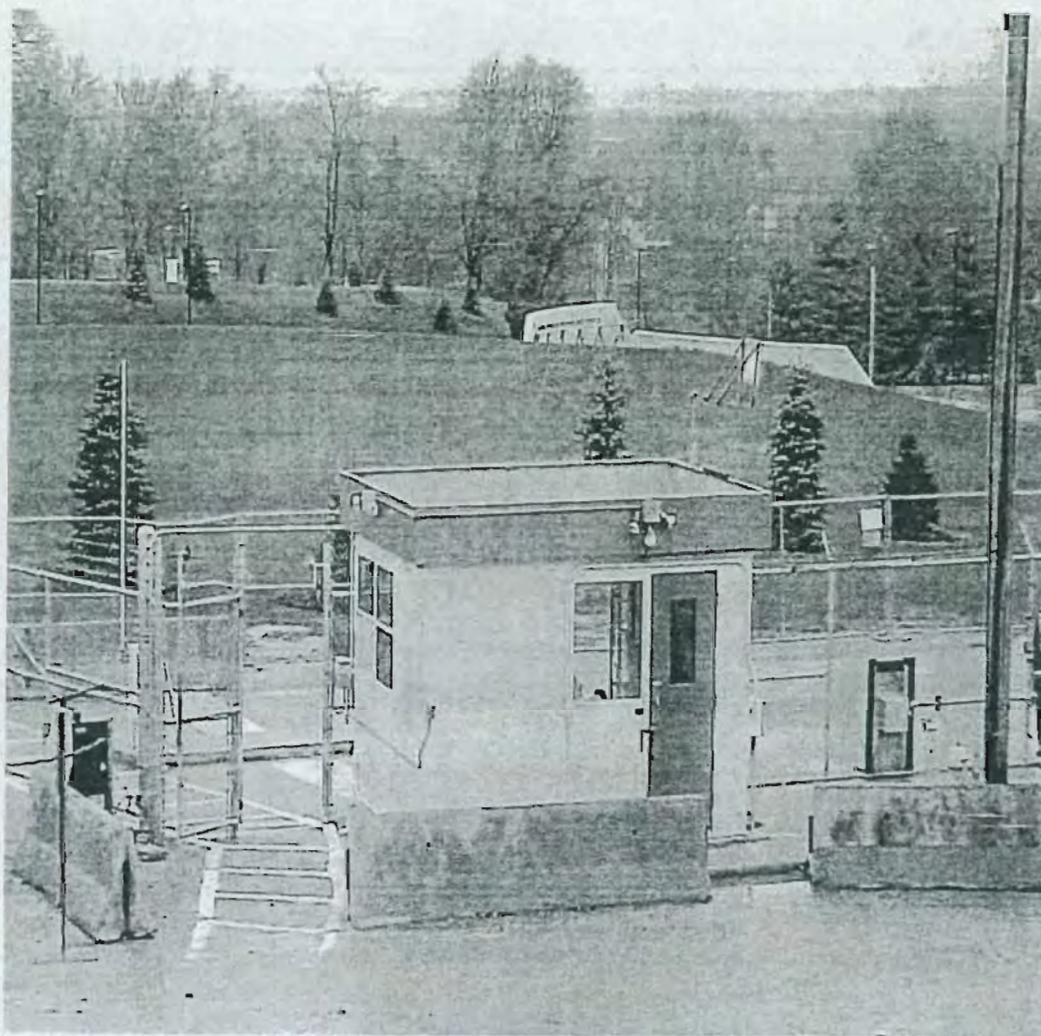


SHEET	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
ISSUE																						
SHEET	1	2	3	4	5	6																
ISSUE																						
PART CLASSIFICATION																						
DATE																DATE						
UNCLASSIFIED																vicinity.dgn						
DWG TYPE	STE	PLNG	ER-GIS	CADD																		
STATUS	MD-BEL-03/25/03															ORIGIN	MSTATION / J					

Figure 2:
GP-8 and Vicinity

08/31/04						SSF				
ISS	DATE	REVISION	BY	CHKD	ENG	UPDC	APVD			

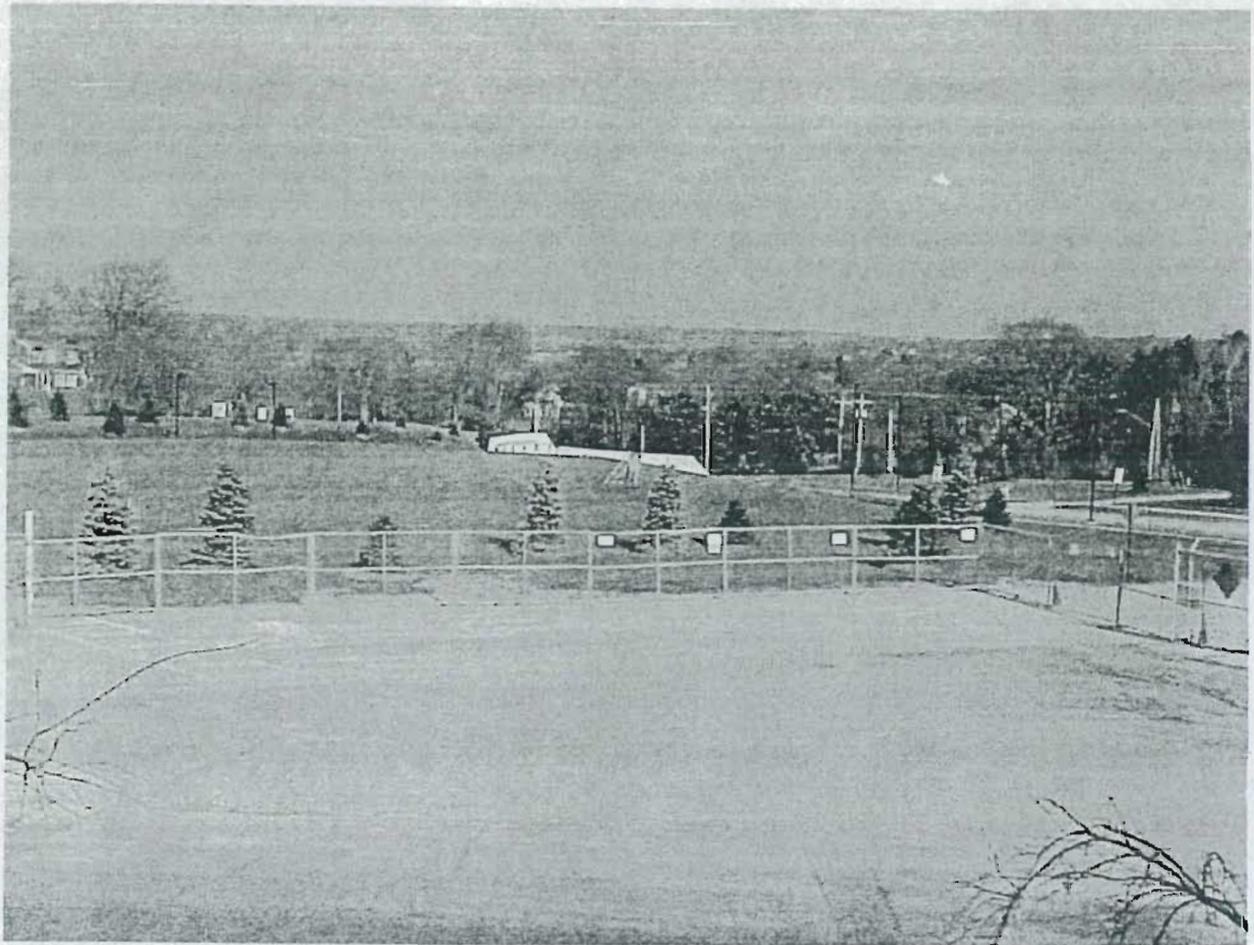
Figure 3 – Guard Post 8 Photos



Guard Post 8 Prior to Demolition



Guard Post 8 During Demolition



Guard Post 8 Post Demolition

APPENDIX B

Post-Final Status Survey Report Radiological Surveys

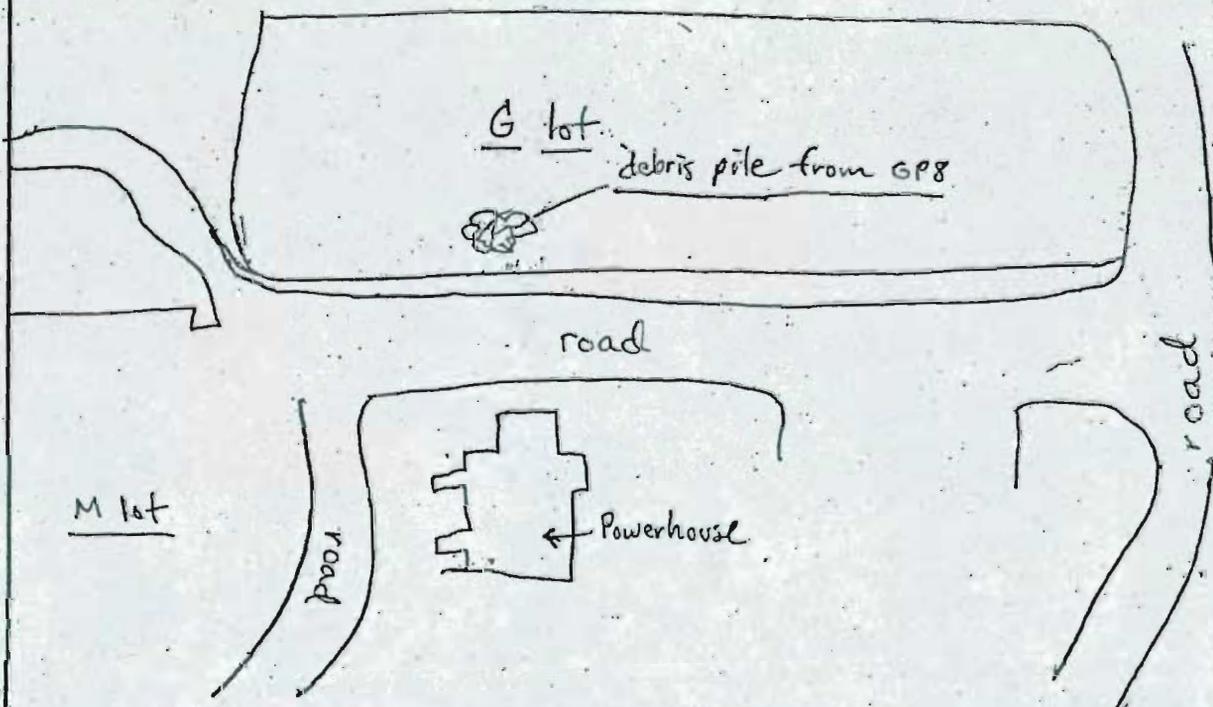
RADIOLOGICAL SURVEY DATA SHEET

Page 1 of 4

LOCATION: (BLDG./AREA/ROOM)	"G" lot	SURVEY NO.	04-TP-0424
PURPOSE:	Survey Debris pile from Guard Post #8 (concrete rubble)	RWP NO.	N/A
		DATE:	12-14-04
		TIME:	1510 ⁰⁰

MAP/DRAWING

* Various smears and direct scans performed on debris pile. on 12/13/04



Integrated count taken IF audible detected. NO audible detected.
 ALL direct readings <100dpm/100cm² Alpha and <5000dpm/100cm² Beta

LEGEND:

- # = mrem/hr (γ) whole body
- # E = mrem/hr ($\beta+n+\gamma$) extremity on contact
- K = factor of 1000
- = radiological boundary
- # = mrem/hr neutron
- # = air sample number
- # = swipe number
- # α or β = direct contamination measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
Lvd 2360	5697/5715	12-13-05
Lvd 2360	5758/5734	4-14-05
A		
N		

ML-9620

Completed by: (Signature)	HP#	Date:
<i>[Signature]</i>		12/14/04
Completed by: (Print)		
L. Coffey Jr.		
Counted by: (Signature)	HP#	Date:
see Attached		
Counted by: (Print)		
Reviewed/Approved by: (Signature)	HP#	Date:
<i>[Signature]</i>		12-18-04
Reviewed/Approved by: (Print)		
<i>[Signature]</i>		

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm ²)				
Sample#	B/g	Alpha	Tritium	Comments
1				Concrete debris
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28		N/A		
29				
30				
31				
32				
33				
34				
35				

Removable Contamination				
Swipes (dpm/100cm ²)				
Sample#	B/g	Alpha	Tritium	Comments
36				
37				
38				
39				
40				
41				
42				
43				
44				
45				
46				
47				
48				
49				
50				
51				
52				
53		N/A		
54				
55				
56				
57				
58				
59				
60				
61				
62				
63				
64				
65				
66				
67				
68				
69				
70				

COMMENTS: All smears field counted prior to submitting to count room - all < 1K dpm/100cm² α, β-

- NOTES:
1. See MD-80038 10002 for calculations of WB, extremity and skin dose rates.
 2. To request RO count Room analysis for B/g, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
 3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

Smear Analysis

Unit Type: LB4100/W
 Counting Unit ID: Aqua
 Data file name: SMEAR003
 Batch Ended: 12/14/04 9:34

Crosstalk correction performed.

Recalibration Date: 03/18/05
 Serial Number: 16066-1

Batch ID: 04-TR-0424 OFFNER [20] GWD

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flag	DPM	σ	flag
A1	1	0.00	2.21		2.23	2.56	
A2	2	0.00	2.24		3.04	2.54	
A3	3	0.00	2.16		0.00	1.27	
A4	4	0.00	2.05		1.15	2.16	
B1	5	1.69	1.95		0.00	1.68	
B2	6	0.00	2.07		0.00	2.08	
B3	7	0.00	1.92		0.00	1.32	
B4	8	0.00	1.92		1.56	2.30	
C1	9	0.00	2.36		0.00	2.38	
C2	10	0.00	2.15		0.00	1.44	
C3	11	0.00	2.10		0.00	1.50	
C4	12	0.00	2.09		1.24	2.57	
D1	13	0.00	2.19		0.00	1.53	
D2	14	0.00	2.17		0.00	1.30	
D3	15	1.45	1.95		0.00	2.04	
D4	16	0.00	2.16		0.00	1.98	
A1	17	0.00	2.19		0.96	2.23	
A2	18	0.00	2.23		1.79	2.20	
A3	19	0.00	2.16		0.00	1.27	
A4	20	0.00	2.08		3.60	2.77	

B3 of 4

AD

AD

Page Text
 12/14/04

6203000

3 of 4

Time: 2.00

Data Mode: DPM

Nuclide: SMGLS02

Quench Set: SMGLS02

Background Subtract: 1st Vial

	LL	UL	LCR	25%	BKG
Region A:	0.5 - 18.6		0	0.0	7.38
Region B:	2.0 - 18.6		0	0.0	7.31
Region C:	40.0 - 2000		0	0.0	8.74

Quench Indicator: tSIE/AEC

Ext Std Terminator: Count

04-TE-0404 L. DEFFNER (20) AB 04-TE-0424 GWD

Coincidence Time(ns): 18

Delay Before Burst(ns): Normal

Protocol Data Filename: c:\data\PROT5.BAT

Count Data Filename: c:\data\SDATA5.DAT

Spectrum Data Drive & Path: c:\data

S#	TIME	CPMA	DPM1	2Sigma	CPMB	CPMC	tSIE	FLAG
-1	10.00	7.58		0.00	7.31	8.74	636.91	B
0	2.00	724.04	1374.88	127.30	674.47	0.26	612.79	
1	2.00	0.00	0.00	0.00	0.00	1.26	580.31	
2	2.00	2.42	4.97	9.87	1.16	0.00	520.78	
3	2.00	6.92	16.57	13.61	5.50	4.76	406.15	
4	2.00	0.17	0.32	8.30	0.00	2.76	594.07	
5	2.00	0.00	0.00	0.00	0.00	4.26	552.02	
6	2.00	0.00	0.00	0.00	0.00	0.00	538.96	
7	2.00	3.42	6.57	9.64	2.92	0.26	596.74	
8	2.00	0.00	0.00	0.00	0.00	0.00	582.92	
9	2.00	2.92	6.07	10.22	1.58	4.63	506.95	
10	2.00	0.00	0.00	0.00	0.00	6.26	564.53	
11	2.00	0.00	0.00	0.00	0.00	0.00	630.34	
12	2.00	0.00	0.00	0.00	0.00	1.76	608.22	
13	2.00	0.16	0.34	8.80	0.00	0.00	526.88	
14	2.00	0.00	0.00	0.00	0.00	0.00	505.90	
15	2.00	0.00	0.00	0.00	0.00	0.00	544.33	
16	2.00	0.42	0.83	8.65	0.48	0.00	562.01	
17	2.00	7.42	15.24	11.87	5.29	2.26	521.06	
18	2.00	0.00	0.00	0.00	0.00	4.26	603.81	
19	2.00	0.00	0.00	0.00	0.00	0.00	574.06	
20	2.00	0.47	0.93	8.61	0.00	3.26	570.84	

C. DeB...

APPENDIX C

PRS Recommendation Sheets

MOUND PLANT
PRS 65/402/403/404
BUILDING 61 HEAVY EQUIPMENT AREA-SOIL
CONTAMINATION

RECOMMENDATION:

Potential Release Site (PRS) 65 was identified as the Building 61 Heavy Equipment Storage Area. PRSs 402, 403 and 404 were identified based on soil gas results from the OU5 Operational Area Non AOC Phase I Investigation.

Quantitative sampling in 1996 indicated no contamination above Guideline Criteria with the exception of benzo(a)pyrene which was detected at a concentration of 1,300 ug/kg in the soil. This concentration, although above the 10^{-6} Risk Based Guideline Value of 410 ug/kg is well below the 10^{-5} Risk Based Guideline Value of 4,100 ug/kg. All radionuclide sampling indicate that radionuclides are all below the regulatory guideline criteria.

Therefore, NO FURTHER ASSESSMENT is recommended.

CONCURRENCE:

DOE/MB:

Arthur W. Kleinrath 11/21/96
Arthur W. Kleinrath, Remedial Project Manager (date)

USEPA:

Timothy J. Fischer 11/21/96
Timothy J. Fischer, Remedial Project Manager (date)

OEPA:

Brian K. Nickel 11/21/96
Brian K. Nickel, Project Manager (date)

SUMMARY OF COMMENTS AND RESPONSES:

Comment period from 11/29/96 to 01/01/97

- No comments were received during the comment period.
- Comment responses can be found on page _____ of this package.