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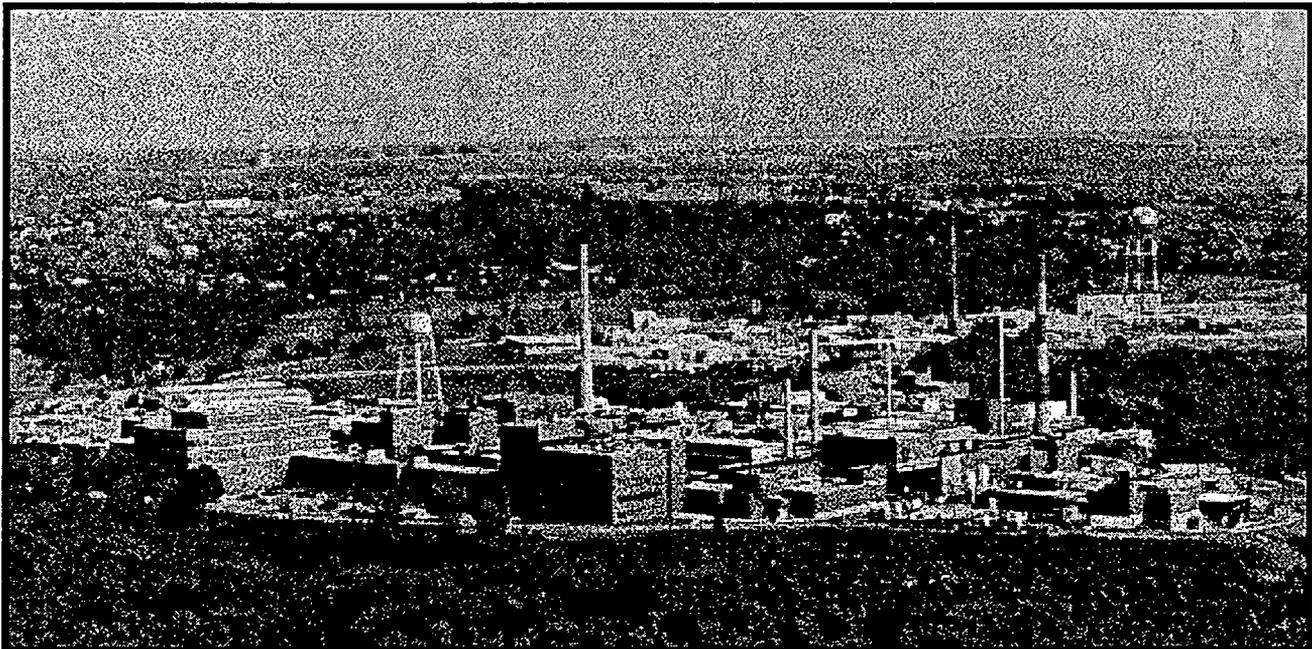
**Environmental
Restoration
Program**



Miamisburg Closure Project Potential Release Site Package

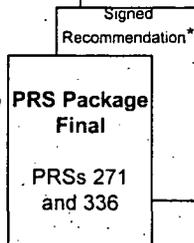
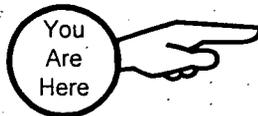
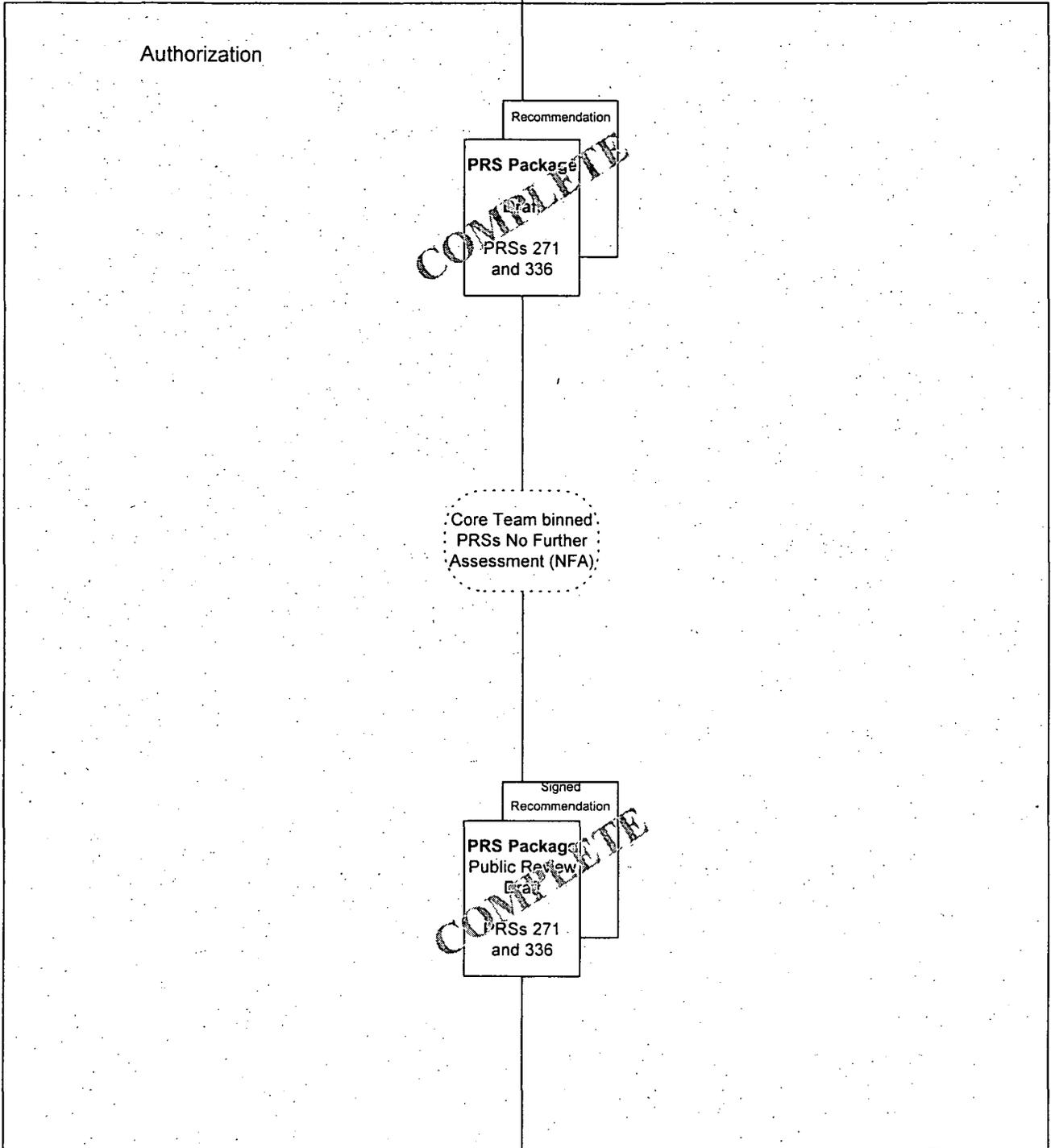
PRS 271 / PRS 336

Final
January 2005



PRs 271 and 336

PRs 271 and 336



*Core Team recommendation also included in the Building 37 Closeout Report



The Mound Core Team
500 Capstone Circle
Miamisburg, OH 45342

January 2005

Mr. Frank Bullock, PE
Director of Operations
Miamisburg Mound Community Improvement Corporation
720 Mound Road
COS Bldg. 4221
Miamisburg, Ohio 45342-6714

Dear Mr. Bullock:

The Core Team, consisting of the U.S. Department of Energy Miamisburg Closure Project (DOE-MCP), U.S. Environmental Protection Agency (USEPA), and the Ohio Environmental Protection Agency (OEPA), appreciates your comments on the PRS 271/336 PRS Package, Public Review Draft, November 2004. Attached is our response.

Should the responses to comments require additional detail, please contact Paul Lucas at (937) 847-8350, x314 and we will gladly arrange a meeting or telephone conference.

Sincerely,

DOE/MCP:	<i>Paul Lucas</i>	1/4/05
	Paul Lucas, Remedial Project Manager	date
USEPA:	<i>Timothy J. Fischer</i>	1/4/05
	Timothy J. Fischer, Remedial Project Manager	date
OEPA:	<i>Brian K. Nickel</i>	1/4/05
	Brian K. Nickel, Project Manager	date

**Response to MMCIC/ EHS Technology Group, LLC Comments on the
PRS 271/336 PRS Package
Public Review Draft
November 2004**

Comment 1.

Reference Document: PRS 271/336 Data Package, Public Review Draft, November 2004

Purpose: The purpose of this document is to notify the public of the status (No Further Action) of the Potential Release Sites (PRS) 271/336.

Assessment of Review: EHS has had the opportunity to review and comment on this PRS Data Package. We concur with the planned No Further Action status for PRS 271/336. This data package was prepared in accordance with the requirements specified in the *Work Plan for Environmental Restoration (ER) of the DOE Mound Site, The Mound 2000 Approach*. As such, all appropriate inquiry was made into the condition of the potential release site.

Technical Analysis: PRS 271/336 are assigned to two underground storage tanks associated with Building 37. Building 37 was designed as a Radioactive Heat Source Testing Facility. Tank 100 (PRS 271) was designed to receive sanitary waste water and to serve as a lift station for the wastes into a sanitary waste manhole south of Building 37. Tank 267 (PRS 336) was designed to received low risk radioactive waste water from floor drains. However, Building 37 is reported not to have handled unsealed radionuclides and later uses of the building were non-radiological. Both of these tanks were removed during a sanitary system upgrade in 2000/2001. Sampling of soils near the two tanks showed no activity exceeding the risk based Soil Screening Levels criteria. Surveys within the PRS 336 tank found no radiological contamination above DOE order 5400.5 criteria. Remaining underground portions of by-pass and sanitary sewer pipeline to or from these tanks are considered less contaminated than the inside of the PRS 336 tanks and have thus been capped and abandoned in place.

Substantive Comments: EHS concurs with the No Further Action recommendation for these tank pits, sewer lines and soils known as PRS 271/336. We understand that sampling in the area has determined that no soil contaminants are above the risk based Soil Screening Levels. Therefore, these PRS should not present a significant environmental concern at the site.

Coordination between CH2M Hill, the DOE and MMCIC to ensure the PRS 211/212 area is left in a condition consistent with the Mound Reuse Plan.

If EHS's understandings are correct, no specific response to the above comment is necessary, and we understand that these comments will be included in the OSC report.

Response 1. Thank you for your review and input to the document. Public comments are included in the final version of the document to which they pertain; accordingly, these comments will not be included in an OSC Report as your comment indicated, but are included in the Final version of the PRS 271/336 PRS Package.

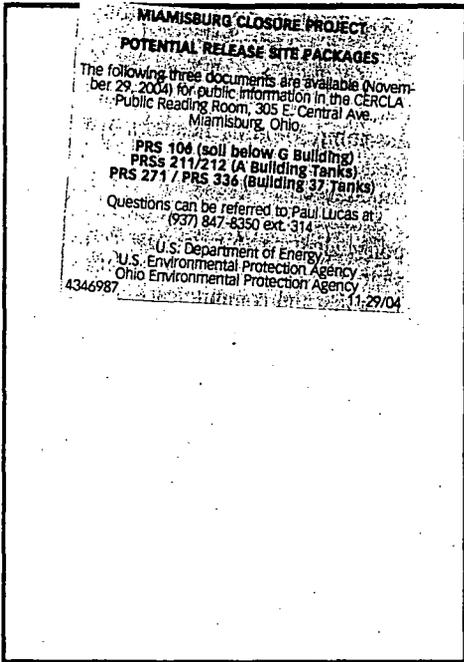
MMCIC is encouraged to coordinate with DOE and the clean-up contractor regarding end-state plans. The demolition Work Plan for Building 37 specifies any site restoration activities that followed structure removal. The Core Team understands MMCIC's request and encourages MMCIC to meet with DOE to obtain an agreeable end state.

AFFIDAVIT OF PUBLICATION

State of Ohio

SS: CH2MHILL Mound

Montgomery County



Before me, the undersigned, a Notary public in and for said County, personally came Tina Sears, who being first duly sworn says she is the Legal Advertising Agent of the DAYTON DAILY NEWS, which she says is a newspaper of general circulation in Montgomery, Clark, Warren, Butler, Clinton, Greene, Preble, Miami, Darke, Mercer, Shelby, Fayette, Logan, Auglaize, and Champaign Counties, and State of Ohio, and she further says that the Legal Advertisement, a copy of which is hereunto attached, has been published in the said DAYTON DAILY NEWS

20 Lines, 1 Time(s), last day of publication

being 11/29/04, and he/she further says

that the bona fide daily paid circulation of the said DAYTON DAILY NEWS was over Twenty-five Thousand (25,000) at the time the said advertisement was published, and that the price charged for same does not exceed the rates charged on annual contract for the like amount of space to other advertisers in the general display advertising columns.

Signed

Tina Sears

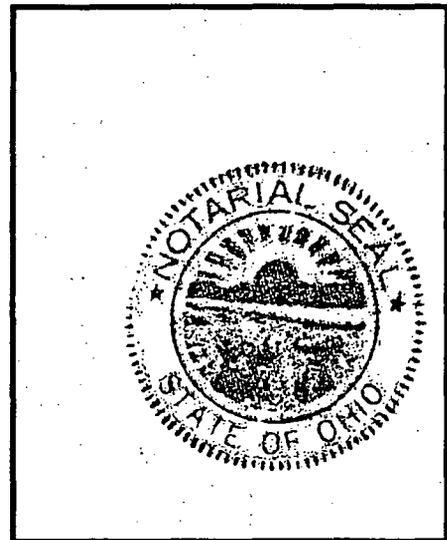
Sworn or affirmed to, and subscribed before me, this

29 day of November 2004

In Testimony Whereof, I have hereunto set my hand and affixed my official seal, the day and year aforesaid.

[Signature]

Notary Public in and for the State of Ohio



PRS HISTORY:

PRS 271 and PRS 336 are assigned to two underground tanks associated with Building 37: "Tank 100" (PRS 271), and "Tank 267" (PRS 336) [1]. See Figures 1-3 for their location. Building 37 was designed as a Radioactive Heat Source Testing Facility [2]. The building was equipped with sanitary facilities and low risk radiological drains. Both Tanks 100 and 267 were installed in 1966-1968, during the construction of Building 37 [3]. Tank 100 was designed to receive sanitary waste water and to serve as a lift station for the wastes into a sanitary waste manhole south of Building 37. Tank 267 was designed to receive low risk radioactive waste water from floor drains. However, Building 37 is reported not to have handled unsealed radionuclides [2]. Later uses of the building were non-radiological, including spectroscopy, adhesives formulation, organic materials process development, polymer battery development, and machine shop operations [2]. Safe Shutdown of Building 37 in 2003 was followed by its demolition in 2003/2004 [4].

Tank numbers 100 and 267 were assigned during a series of underground storage tank inventories [5]. A later underground tank evaluation described the regulatory status of both tanks to be "in compliance" [6] (see also Attachment 1).

Tank 100 (PRS 271) was an unlined single-walled steel 500-gallon sanitary holding tank [6]. It served as a lift station for both Building 37 and Building 88 (an office building). It was located in a 6' L x 4.5' W x 6' H underground concrete vault on the east side of Building 37 near its northeast corner. The tank was removed from its concrete vault in 2000/2001 during the Building 126 construction project [4]. During that project the Building 37 sanitary effluent line was re-piped from the vault, along the north side of the building, toward a new sanitary main to the west (see Figure 3). The concrete vault remained until March 2004, at which time it was demolished (see Figures 4 and 5).

Tank 267 (PRS 336) was an unlined single-walled steel 500-gallon settling tank [6]. It was located underground (not in a vault) on the north side of Building 37 near its northwest corner. The original intention for this tank was to receive low risk radioactive waste water from floor drains. Probably because of the lack of radiological operations in Building 37 [2], the floor drains were disconnected from Tank 267 and by-passed into Tank 100 in 1978 [7] (see Figure 3). Tank 267 was removed on February 22, 2001 during the Building 126 construction project [4] (see Figures 6 and 7). During that project the floor drain discharge line was probably connected to the new sanitary line running along the north side of the building (see Figure 3), and the 1978 line was abandoned.

Several drain lines that serviced the tanks in the vicinity of Building 37 were allowed to remain. The 1978 by-pass line connecting Building 37 floor drains to Tank 100, the sanitary line to the Tank 100 vault from the former Building 88, and the sanitary line from the Tank 100 vault to the manhole south of Building 37 remain in place. Lines

entering or exiting the concrete vault were cut and capped when the vault was removed. The 2000/2001 sanitary discharge line was cut and capped near the northwest corner of Building 37.

CONTAMINATION:

Historic Radiological Information

When the PRS numbers 271 and 336 were originally assigned, the tanks were not suspected of being contaminated or of causing releases to the environment [1]. PRS 271, "Sanitary Waste Tank (Tank 100)", was identified simply as holding sanitary wastes, with "None Suspected" entered under "Hazardous Conditions and Incidents". PRS 336, "Low Risk Waste Tank (Tank 267)", was identified simply as holding "Wastewater", with "None Suspected, Never used for low risk wastewaters" entered under "Hazardous Conditions and Incidents".

Recent Sampling

Radiological surveys of Tank 267, and soils nearby the tank, were performed at the time of its removal in 2001. These are contained in Radiological Survey Data Sheet (RSDS) #01-50-037 (Attachment 2) and RSDS #01-50-039 (Attachment 3). The data show that the tank was not contaminated above DOE Order 5400.5 release criteria, either inside or outside. Detected radionuclides in nearby soils were below 10^{-6} risk-based Soil Screening Level (SSL) criteria.

Radiological surveys of Tank 100, performed at the time of its removal in 2000/2001, have not been located. Because of this, the Building 37 Data Package (BDP) [4] planned the collection of additional radiological data during the demolition of the concrete vault that once held Tank 100. The BDP also planned that additional samples for chemical contaminants would be taken if stained soil, soil with any odor, or any other indication of contamination were found. The radiological results are found in RSDS #04-TF-0108 (Attachment 4). Swipes and direct alpha surveys of vault concrete detected no activity above DOE Order 5400.5 criteria. A soil sample taken at the base of the vault showed no detected radioactivity above the 10^{-6} risk-based SSL criteria. No unusual soil coloration or odor was observed.

Prior to its demolition, Building 37 was surveyed in 2003 under Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM) protocols. Surveys found no residual radioactivity above DOE Order 5400.5 release criteria. Smear and direct surveys of sediment in floor drains also found no activity above these criteria [4]. For this reason Building 37 demolition debris was handled as non-radiological waste.

DISCUSSION:

The tanks constituting PRS 271 and 336 have been removed. The vault containing PRS 271 has been removed. PRS 336 had no vault.

Radionuclide contamination levels in soils near the original locations of PRS 271 (Tank 100) and PRS 336 (Tank 267) are below 10^{-6} risk-based SSL criteria.

The interior of Tank 267 is the first and most likely area outside Building 37 to have collected radiological contamination (if it was ever present). Residual activity on and in Tank 267 was below DOE 5400.5 release criteria. Therefore, the 1978 by-pass pipeline leading from Building 37 drains to sanitary Tank 100, and the sanitary pipelines to and from Tank 100, are likewise considered acceptable (below DOE 5400.5 release criteria). These lines have been capped and abandoned in place.

REFERENCES:

- [1] Operable Unit 9 Site Scoping Report: Volume 12 – Site Summary Report, Mound Plant, Miamisburg, Ohio, December 1994, pages A.1-29 and A.1-36.
- [2] Floyd Hertweck, CH2M Hill Mound, Inc., White Paper: Building 37 Structural History and Process History Summary Background Document, April 2003.
- [3] Drawing 303700-04007, drawer 114, 66-M-7, "Radioactive Heat Source Testing Facility, Plumbing", Rev. 1, 3/14/68; Miamisburg Cleanup Project Drawing Control Department.
- [4] Environmental Restoration Program, Building Data Package, Building 37, Final, January 2004; also: Barge Waggoner Sumner Cannon, Job No. 18368-00, "New Support Buildings for Power Systems Technologies", Sheets 1005, 1006, Issue A, June 2000, and personal communication with W. Brunner regarding as-built condition, October 2004.
- [5] Mound Plant Underground Storage Tank Program Plan and Regulatory Status Review (Final), US DOE, Albuquerque Operations Office, Albuquerque, NM, November 1992, and references cited therein.
- [6] Dames & Moore, Active Underground Storage Tank Plan, prepared for EG&G Mound Applied Technologies, DOE Mound Facility, Miamisburg, Ohio, July 20, 1994.
- [7] Drawing FSD 17504, "Building 37, Relocation of Equipment from Building 28, Sump Tank Relocation", Rev. B, 12/14/78; Miamisburg Cleanup Project Drawing Control Department.

ATTACHMENTS:

- 1.) Active Underground Storage Tank Plan (pages relevant to PRS 271 and PRS 336)
- 2.) Radiological Survey Data Sheet #01-50-037
- 3.) Radiological Survey Data Sheet #01-50-039
- 4.) Radiological Survey Data Sheet #04-TF-0108

PREPARED BY:

John Gill, CH2M Hill Mound, Inc., ER Technical Staff

**MIAMISBURG CLOSURE PROJECT
PRS 271/PRS 336**

RECOMMENDATION:

PRS 271 and PRS 336 are the locations of two underground tanks that once received waste water from the former Building 37. PRS 271 received sanitary waste water, while PRS 336 was designed to receive low risk radiological waste water. An historic review and recent sampling have found no evidence to suspect actual presence of radiological contamination in Building 37. Both tanks were removed during a sanitary system upgrade in 2000/2001. Sampling of soils near the two tanks showed no activity exceeding 10^{-6} risk-based Soil Screening Level criteria. Surveys within the PRS 336 tank found no radiological contamination above DOE Order 5400.5 criteria. Remaining underground portions of by-pass and sanitary sewer pipeline to or from these tanks are considered less contaminated than the inside of the PRS 336 tank and have thus been capped and abandoned in place.

The Core Team recommends No Further Assessment for PRS 271 and PRS 336.

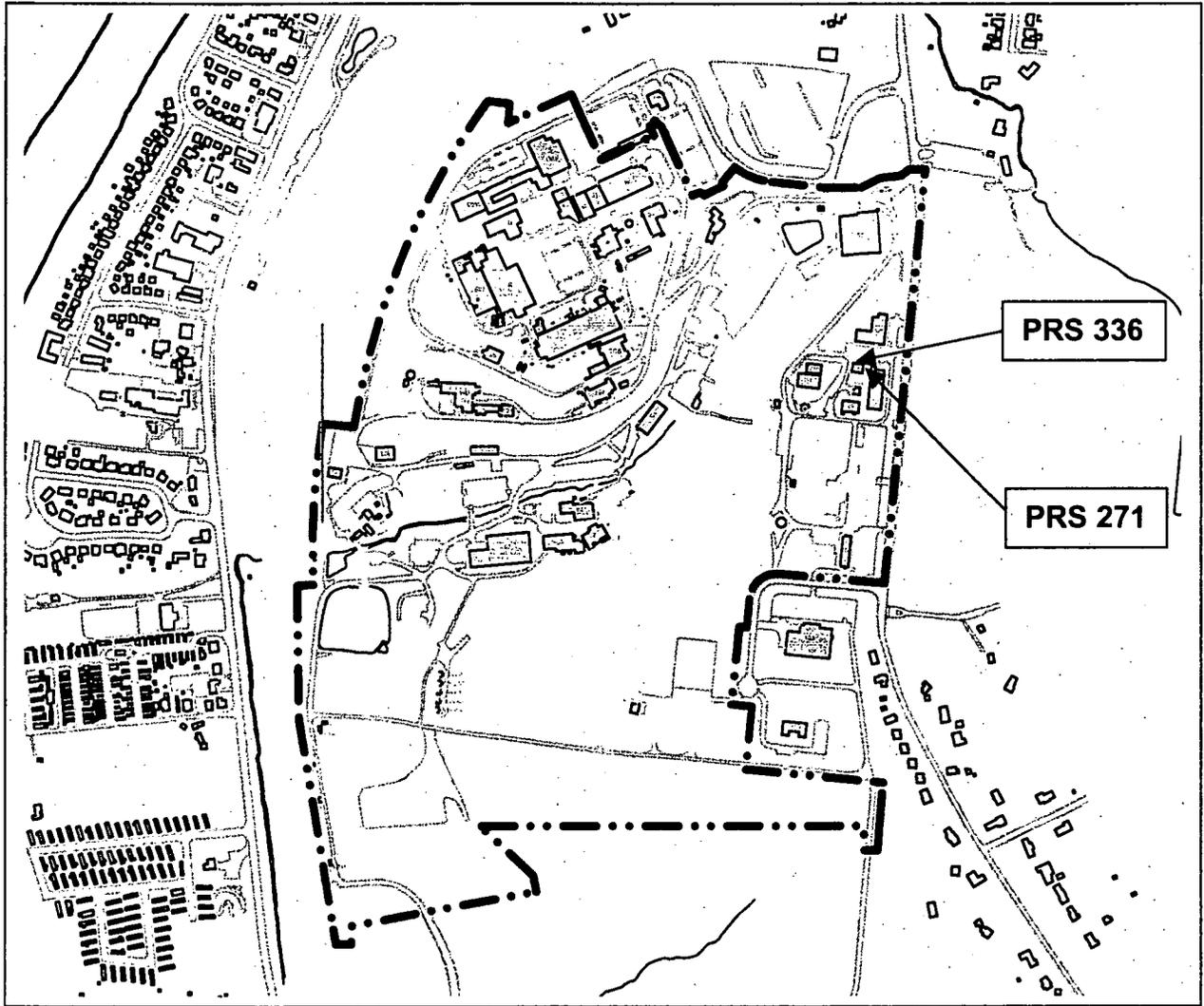
A PRS Package with an NFA recommendation signed by the Core Team will be placed in the Public Reading Room for a 30-day review period. Upon closure of the public review comments, if any, the PRS Package will be issued as a final document and made available in the Public Reading Room.

The final Core Team recommendation sheet from this evaluation will be included in the Building 37 Closeout Report.

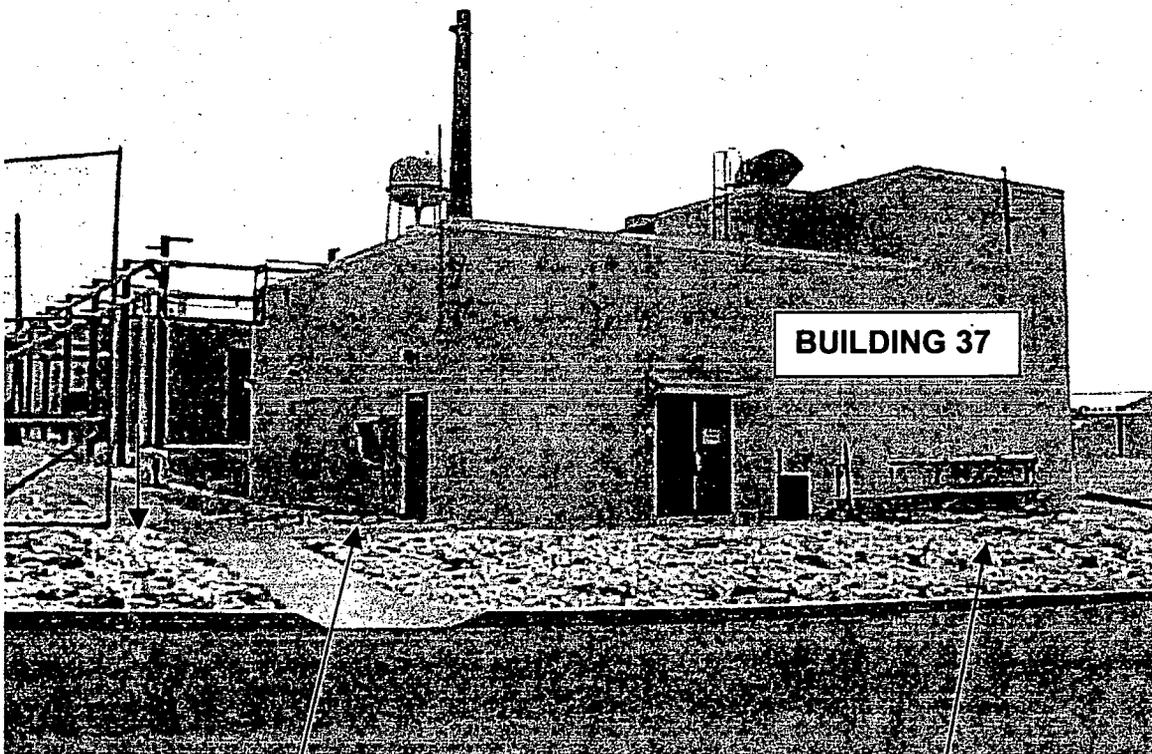
CONCURRENCE:

DOE/MCP:	<i>Paul Lucas</i>	11/17/04
	Paul Lucas, Remedial Project Manager	(date)
USEPA:	<i>Timothy J. Fischer</i>	11/17/04
	Timothy J. Fischer, Remedial Project Manager	(date)
OEPA:	<i>Brian K. Nickel</i>	11/17/04
	Brian K. Nickel, Project Manager	(date)

FIGURE 1: Location of PRS 271 and PRS 336



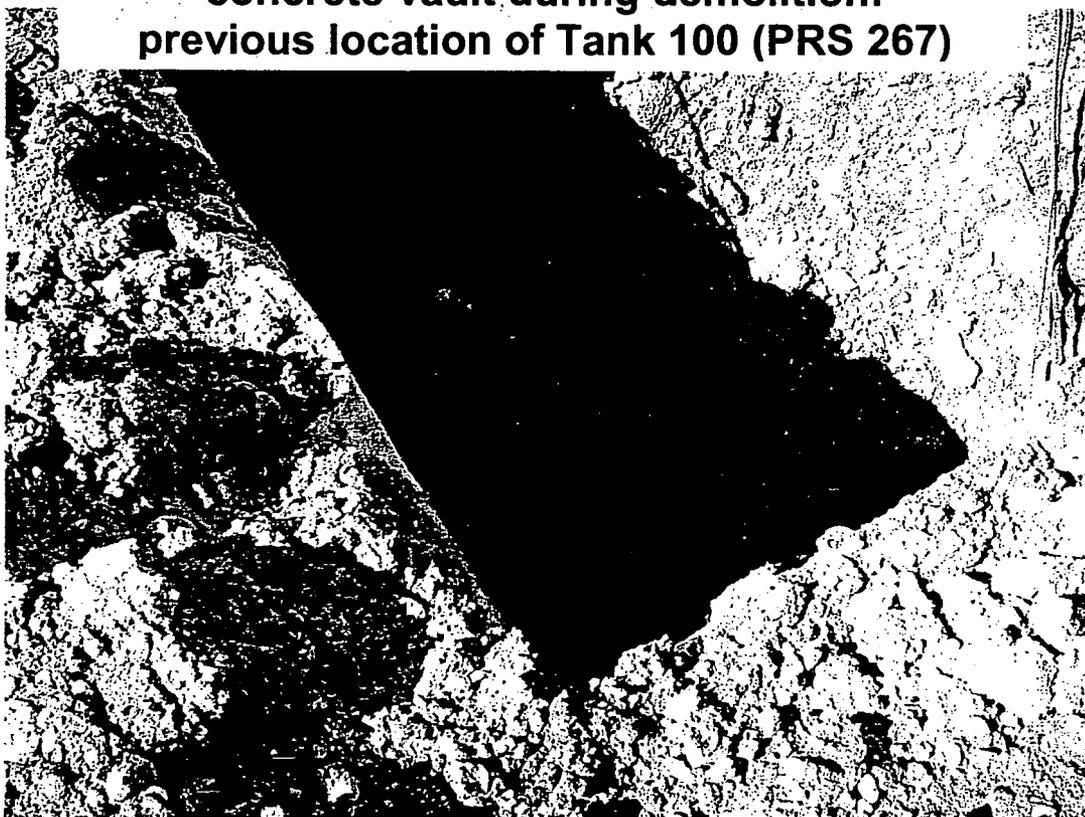
**FIGURE 2: View of Building 37 before demolition,
looking southwest,
showing approximate locations of underground tanks:
Tank 100 (PRS 271) and Tank 267 (PRS 336)**



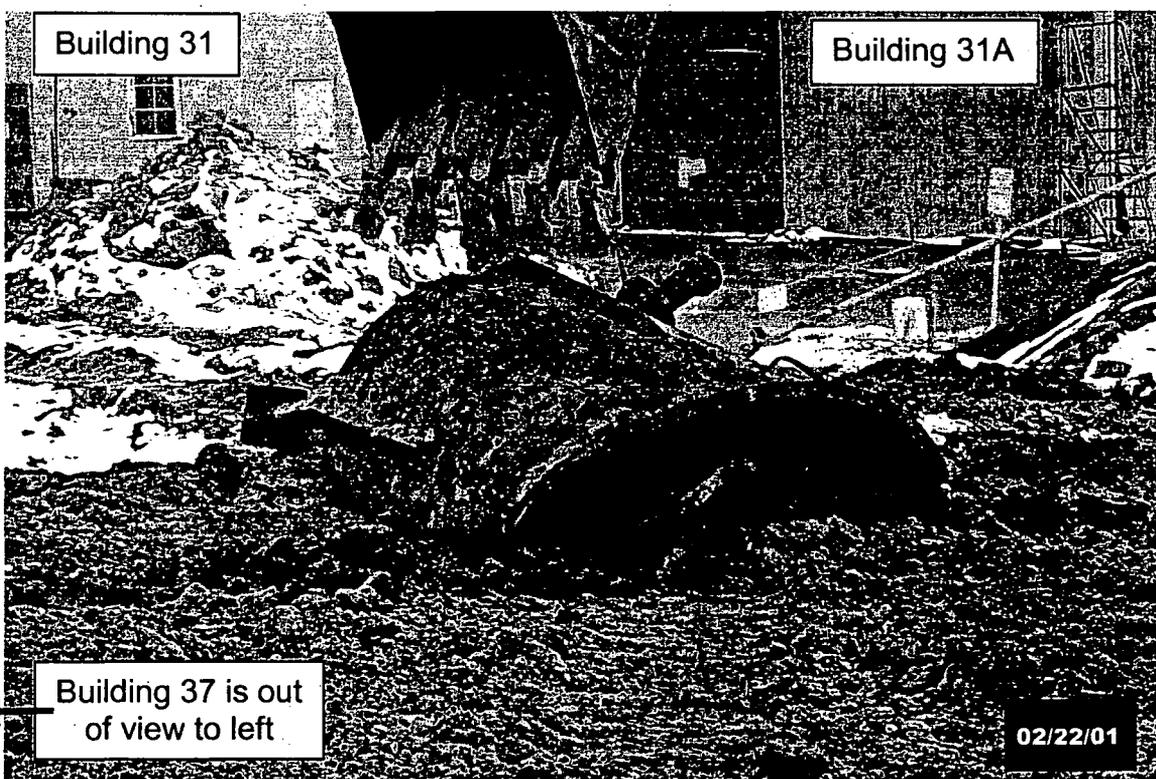
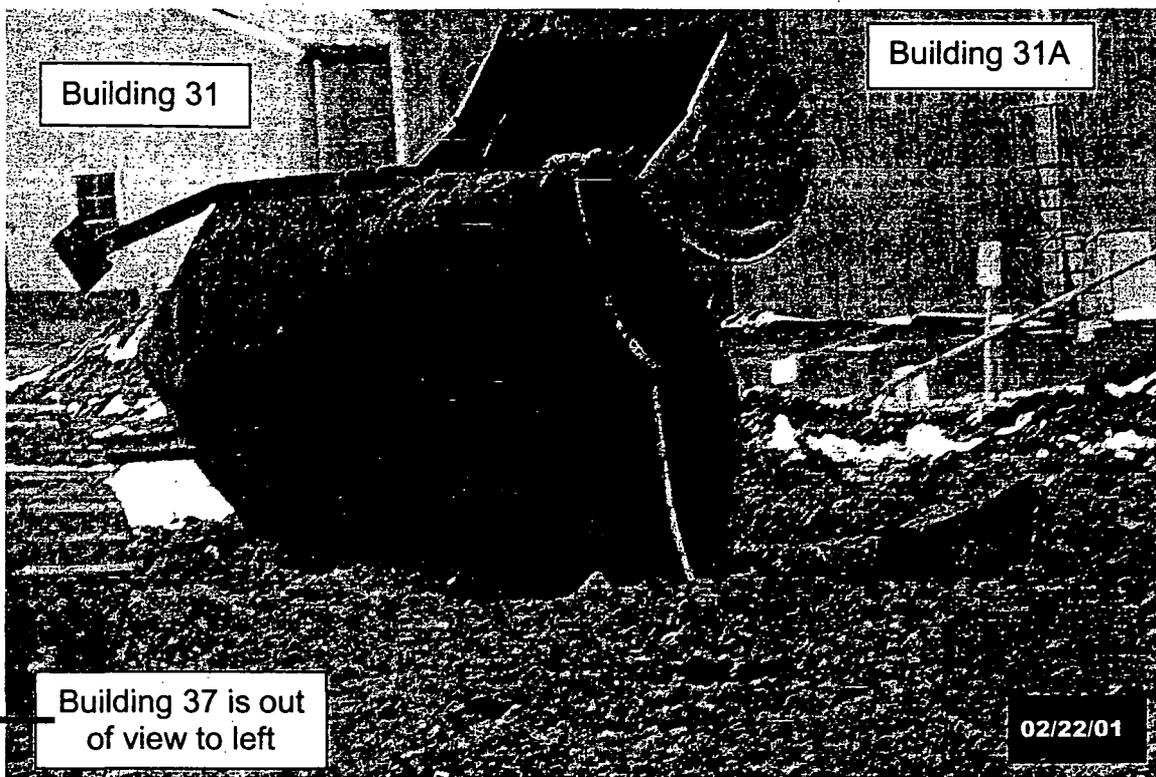
**Tank 100
(PRS 271)**

**Tank 267
(PRS 336)**

**FIGURES 4 and 5: March 2004 views of open
concrete vault during demolition:
previous location of Tank 100 (PRS 267)**



FIGURES 6 and 7: February 2001 views of removal of Tank 267 (PRS 336), looking southwest



ATTACHMENT 1

ACTIVE UNDERGROUND STORAGE TANK PLAN

(pages relevant to PRS 271 / PRS 336)



Final Draft

*Active Underground Storage
Tank Plan*

July 20, 1994

Prepared for:

**Project Management and Planning
EG&G Mound Applied Technologies
One Mound Road
Miamisburg, Ohio**

Tank No. 29			
Proposed Program AUSTP	Bldg A	Location	Owner U.S.DOE
Status in service	Installation Date 1968	Estimated Capacity (gallons) 400	
Purpose of Tank Medical decon shower collection tank			
Tank Material Bare Steel		Tank Cathodic Protection Internal PVC Lining	
Inlet of Tank From medical decon showers		Outlet of Tank Tested - if non-rad to Bldg 57, if rad to WD Bldg	
Evidence of Release No		Spill/Overfill Prevention High Level Alarm	
Substance Current/Last Stored Sanitary Wastewater/Radioactive Wastewater		Tank Site Description Outdoor; Asphalt/Concrete	
Calibration/Maintenance None		Tank Release Detection None	
Piping Release Detection None		Closure Date Last Used N/A	
OU9 Reference No 212	FFA OU	N/A	
Primary Regulatory Jurisdiction AEA		Spill Jurisdiction AEA	
Regulatory Status In compliance			
Documents Provided DOE, 1992a; DOE, 1993; UST Inspection Sheet; Drawing No. M-1, Rev 1			
Comments None			

Tank No. 100			
Proposed Program AUSTP	Bldg 37	Location	Owner U.S.DOE
Status in service	Installation Date 1968	Estimated Capacity (gallons) 500	
Purpose of Tank sanitary waste tank			
Tank Material Bare Steel		Tank Cathodic Protection None	
Inlet of Tank Sanitary Wastes from Bldg 37 & 88		Outlet of Tank Bldg 57, New Sewage Disposal Area	
Evidence of Release No		Spill/Overfill Prevention On/Off Level Float Switch; High Level Alarm	
Substance Current/Last Stored Sanitary Wastewater		Tank Site Description Outdoor	
Calibration/Maintenance None		Tank Release Detection None	
Piping Release Detection None		Closure Date Last Used N/A	
OU9 Reference No 271	FFA OU	N/A	
Primary Regulatory Jurisdiction CWA		Spill Jurisdiction AEA	
Regulatory Status In compliance			
Documents Provided DOE, 1992a; DOE, 1993; NUS, 1989; UST Insp; Dwg No 66-M-7; Dwg No 66-M-8			
Comments Tank is unlined steel in a concrete pit.			

DAMES & MOORE - INSPECTION & DOCUMENT REVIEW NOTES

CLIENT EG&G Mound Applied Technologies		JOB NUMBER 10805-794		DATE 4/20/94	
JOB TITLE Active Underground Storage Tank Program			D&M TEAM Grantelli & DeSpirito		
TANK NO. 100	BLDG LOCATION 37	EG&G SPONSOR Operations		OWNER U.S. DOE	
TANK STATUS In Service	TANK CAPACITY (gallons) 500	INSTALLATION DATE 1966	INTERVIEWED WITH Bruno & Cloud	INTERVIEW DATE 2/24/94	

TANK DESCRIPTION, Purpose of Tank *Sanitary waste tank*

<p>Tank Material</p> <input checked="" type="checkbox"/> Bare Steel (unprotected) <input type="checkbox"/> Composite (steel & FRP) <input type="checkbox"/> Fiberglass Reinforced Plastic <input type="checkbox"/> Stainless Steel Lined Concrete <input type="checkbox"/> Steel Lined Concrete <input type="checkbox"/> Concrete <input type="checkbox"/> Other - Specify <input type="checkbox"/> Unknown	<p>Tank Cathodic Protection</p> <input type="checkbox"/> Internal Lining - Specify <input type="checkbox"/> Sacrificial Anodes <input type="checkbox"/> Impressed Current <input type="checkbox"/> Composite (Steel & FRP) <input type="checkbox"/> Other - Specify <input type="checkbox"/> Unknown <input checked="" type="checkbox"/> None	<p>Inlet of Tank <i>Sanitary waste from Bldg 37 88</i></p> <p>Outlet of Tank <i>(38' under (urno))</i> <i>to Bld 57, New Sewage Disposal Area</i></p>	<p>History of Spills <i>No</i></p> <p>Spill/Overfill Prevention</p> <input type="checkbox"/> Float Vent Valve <input checked="" type="checkbox"/> High Level Alarm <input type="checkbox"/> Auto Shutoff <input checked="" type="checkbox"/> Other - Specify <input checked="" type="checkbox"/> None <i>On/Off Bell Float Level Switch</i>
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<p>Piping Material</p> <input type="checkbox"/> Cathodically Protected Steel <input type="checkbox"/> Bare Steel (unprotected) <input type="checkbox"/> Fiberglass Reinforced Plastic <input type="checkbox"/> Double Walled or Jacketed <input checked="" type="checkbox"/> Other - Specify <input type="checkbox"/> Unknown <i>Cast Iron</i>	<p>Substance Currently/Last Stored</p> <input type="checkbox"/> Gasoline <input type="checkbox"/> Diesel <input type="checkbox"/> Kerosene <input type="checkbox"/> Used Oil <input type="checkbox"/> Hazardous Substances - <input checked="" type="checkbox"/> Specify <input type="checkbox"/> Other - Specify <input type="checkbox"/> Unknown <i>Sanitary wastewater</i>	<p>Tank Site Description</p> <input type="checkbox"/> Indoor <input checked="" type="checkbox"/> Outdoor <input type="checkbox"/> Soil <input type="checkbox"/> Asphalt/Concrete <input type="checkbox"/> Storm Drains, <input type="checkbox"/> Potential Surface water runoff <input type="checkbox"/> Soil Staining	<p>DOE / AEC / PM No: <i>None</i></p> <p>Calibration Records</p> <p>Maintenance Records</p>
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<p>Tank Release Detection Method</p> <input type="checkbox"/> Inventory Control <input type="checkbox"/> Manual Tank Gauging <input type="checkbox"/> Tank Tightness Testing <input type="checkbox"/> Automatic In-Tank Monitor & Inventory Control <input type="checkbox"/> Vapor Monitoring <input type="checkbox"/> Groundwater Monitoring <input type="checkbox"/> Secondary Containment with Interstitial Monitoring <input checked="" type="checkbox"/> Other - Specify <input checked="" type="checkbox"/> None	<p>Piping Release Detection Method</p> <input type="checkbox"/> Pressure Piping Automatic Line Flow Restrictor <input type="checkbox"/> Pressure Piping Automatic Line Shutoff Device <input type="checkbox"/> Line Tightness Test (Pressure Annual, Suction Every 3 yrs) <input type="checkbox"/> Vapor Monitoring <input type="checkbox"/> Groundwater Monitoring <input type="checkbox"/> Approved Suction Piping <input type="checkbox"/> Other - Specify <input checked="" type="checkbox"/> None	<p>Closure <i>- n/a</i></p> <p>Date of Last use</p> <p>Intended Replacement</p> <p>Closure Plan</p> <p>Part of Operable Unit</p>	<p>Primary Regulatory Jurisdiction <i>CWA</i></p> <p>Spill Jurisdiction <i>AEA</i></p> <p>Regulated Units</p>
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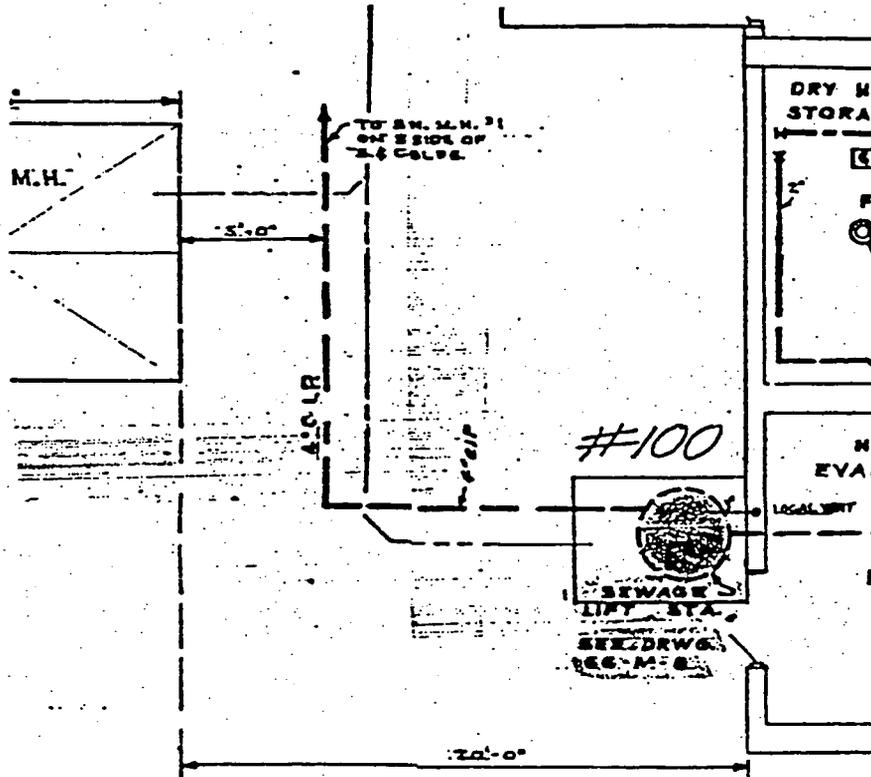
DOCUMENTS, REFERENCES USED: *DOE 1992a, DOE 1993, NUS, 1989; UST Inspection Sheet; Dwg No 66-M-4; Dwg No 66-M-8*

COMMENTS: *The tank is an unlined steel in concrete pit. There appears to be a ball float level on/off switch and an operable audible alarm in the case of overflow. A control panel for this was seen on the outer wall of Bldg 37. Could only see the sidewalk cover for this pit. Could not open.*

SIGNATURE *ASL* 1-3 of 9

CLIENT EG&G Mound Applied Technologies		JOB NUMBER 10805-794		DATE 4/20/94	
JOB TITLE Active Underground Storage Tank Program		D&M TEAM Giantelli & DiSpirito			
TANK NO. 100	BLDG LOCATION 37	EG&G SPONSOR Operations		OWNER U.S. DOE	
TANK STATUS In Service	TANK CAPACITY (gallons) 500	INSTALLATION DATE 1960s	INTERVIEWED WITH Bruno & Cloud	INTERVIEW DATE 2/24/94	

SKETCH OF TANK/TANK SYSTEM:



COMMENTS:

SIGNATURE

A.S. Giantelli

Tank No. 267			
Proposed Program D&D-Proposed	Bldg 37	Location	Owner U.S.DOE
Status inactive	Installation Date 1966	Estimated Capacity (gallons) 500	
Purpose of Tank low risk waste tank			
Tank Material Bare Steel		Tank Cathodic Protection Unknown	
Inlet of Tank Bldg 37 Radioactive Laboratory Floor Drains		Outlet of Tank Stormwater System	
Evidence of Release No		Spill/Overfill Prevention N/A	
Substance Current/Last Stored Wastewater/Radioactive Wastewater		Tank Site Description Outdoor	
Calibration/Maintenance N/A		Tank Release Detection N/A	
Piping Release Detection N/A		Closure	
OU9 Reference No Not included		Date Last Used	Unknown
		FFA OU	Not assigned
Primary Regulatory Jurisdiction AEA		Spill Jurisdiction AEA	
Regulatory Status In compliance			
Documents Provided Dwg No 66-M-7; Dwg No 66-G-4			
Comments Tank is believed to have been bypassed to Tank 100.			

Tank No. 270			
Proposed Program D&D-Proposed	Bldg 29	Location East Side	Owner U.S.DOE
Status inactive	Installation Date 1965	Estimated Capacity (gallons) 1,000	
Purpose of Tank historic septic tank			
Tank Material Concrete		Tank Cathodic Protection None	
Inlet of Tank Sanitary systems from the Formulation Bldg		Outlet of Tank Adjacent Leach Field	
Evidence of Release No		Spill/Overfill Prevention N/A	
Substance Current/Last Stored Sanitary Wastewater		Tank Site Description Outdoor	
Calibration/Maintenance N/A		Tank Release Detection N/A	
Piping Release Detection N/A		Closure	
OU9 Reference No Not included		Date Last Used	1975
		FFA OU	Not assigned
Primary Regulatory Jurisdiction AEA		Spill Jurisdiction AEA	
Regulatory Status In compliance			
Documents Provided Dwg No 352045-01-004; Dwg No 5-1900; Dwg No U-1			
Comments Tank is on drawings, believed inactive and in place.			

DAMES & MOORE - INSPECTION & DOCUMENT REVIEW NOTES

CLIENT EG&G Mound Applied Technologies		JOB NUMBER 10805-794	DATE 4/20/94	
JOB TITLE Active Underground Storage Tank Program		D&M TEAM Grantelli & Dispirito		
TANK NO. 267	BLDG/LOCATION 37	EG&G SPONSOR - Proposed D&D	OWNER U.S. DOE	
TANK STATUS Inactive	TANK CAPACITY (gallons) 500	INSTALLATION DATE 1966	INTERVIEWED WITH Bruno & Cloud	INTERVIEW DATE 2/24/94

TANK DESCRIPTION, Purpose of Tank *Low Risk Waste Tank*

Tank Material <input checked="" type="checkbox"/> Bare Steel (unprotected) <input type="checkbox"/> Composite (steel & FRP) <input type="checkbox"/> Fiberglass Reinforced Plastic <input type="checkbox"/> Stainless Steel Lined Concrete <input type="checkbox"/> Steel Lined Concrete <input type="checkbox"/> Concrete <input type="checkbox"/> Other - Specify <input type="checkbox"/> Unknown	Tank Cathodic Protection <input type="checkbox"/> Internal Lining - Specify <input type="checkbox"/> Sacrificial Anodes <input type="checkbox"/> Impressed Current <input type="checkbox"/> Composite (Steel & FRP) <input type="checkbox"/> Other - Specify <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> None	Inlet of Tank Bldg 37 <i>Radioactive Laboratory Floor drains</i> Outlet of Tank <i>Storm Water System</i>	History of Spills <i>No</i> Spill/Overfill Prevention <input type="checkbox"/> Float Vent Valve <input type="checkbox"/> High Level Alarm <input type="checkbox"/> Auto Shutoff <input type="checkbox"/> Other - Specify <input type="checkbox"/> None
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Piping Material <input type="checkbox"/> Cathodically Protected Steel <input type="checkbox"/> Bare Steel (unprotected) <input type="checkbox"/> Fiberglass Reinforced Plastic <input type="checkbox"/> Double Walled or Jacketed <input checked="" type="checkbox"/> Other - Specify <input type="checkbox"/> Unknown <i>Cast Iron</i>	Substance Currently/Last Stored <input type="checkbox"/> Gasoline <input type="checkbox"/> Diesel <input type="checkbox"/> Kerosene <input type="checkbox"/> Used Oil <input type="checkbox"/> Hazardous Substances - Specify <input checked="" type="checkbox"/> Other - Specify <input type="checkbox"/> Unknown <i>Potential Radioactive Wastewater</i>	Tank Site Description <input type="checkbox"/> Indoor <input checked="" type="checkbox"/> Outdoor <input type="checkbox"/> Soil <input type="checkbox"/> Asphalt/Concrete <input type="checkbox"/> Storm Drains, Potential Surface water runoff <input type="checkbox"/> Soil Staining	DOE / AEC / PM No: <i>None</i> Calibration Records Maintenance Records
---	---	---	--

Tank Release Detection Method <input type="checkbox"/> Inventory Control <input type="checkbox"/> Manual Tank Gauging <input type="checkbox"/> Tank Tightness Testing <input type="checkbox"/> Automatic in-Tank Monitor & Inventory Control <input type="checkbox"/> Vapor Monitoring <input type="checkbox"/> Groundwater Monitoring <input type="checkbox"/> Secondary Containment with Interstitial Monitoring <input checked="" type="checkbox"/> Other - Specify <input type="checkbox"/> None	Piping Release Detection Method <input type="checkbox"/> Pressure Piping Automatic Line Flow Restrictor <input type="checkbox"/> Pressure Piping Automatic Line Shutoff Device <input type="checkbox"/> Line Tightness Test (Pressure Annual, Suction Every 3 yrs) <input type="checkbox"/> Vapor Monitoring <input type="checkbox"/> Groundwater Monitoring <input type="checkbox"/> Approved Suction Piping <input type="checkbox"/> Other - Specify <input checked="" type="checkbox"/> None	Closure Date of Last use <i>Unknown</i> Intended Replacement Closure Plan Part of Operable Unit	Primary Regulatory Jurisdiction <i>AEA</i> Spill Jurisdiction <i>AEA</i> Regulated Units
--	--	---	---

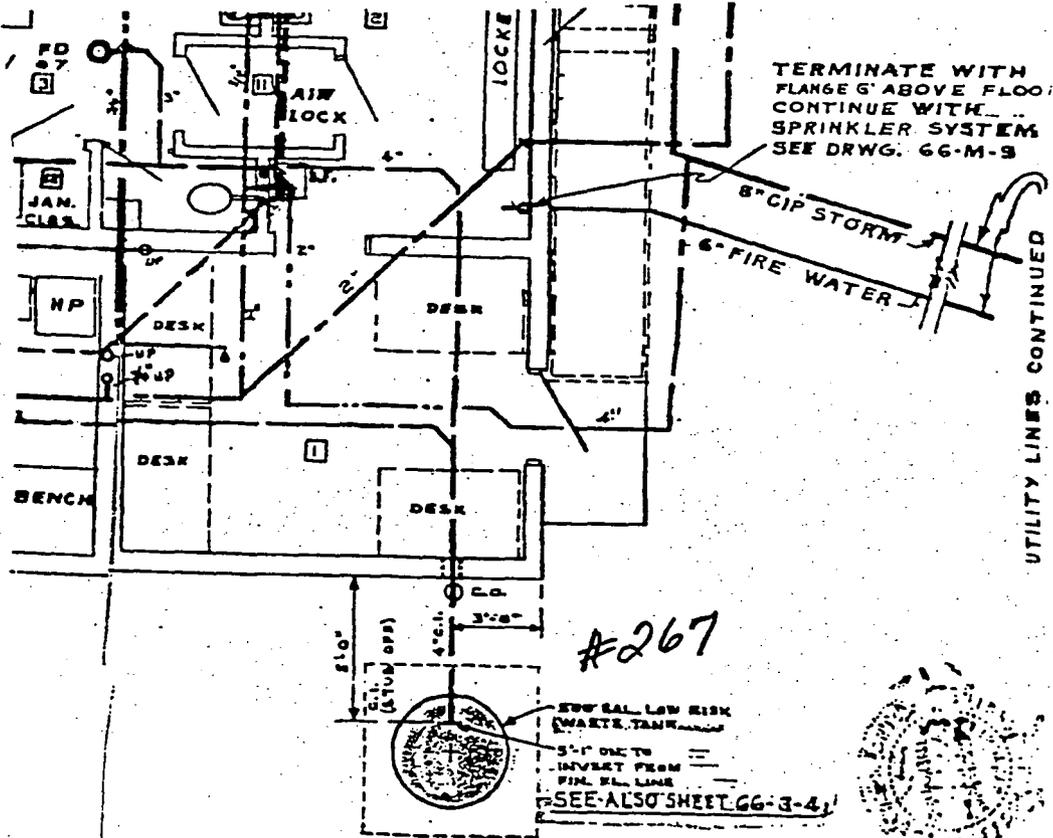
DOCUMENTS, REFERENCES USED: *Dwg No 66-M-7; Dwg 66-G-4*

COMMENTS: *This tank appears from plumbing drawing to receive "low risk" waste from the floor drains within bldg 37. It appears that any water which enter the floor drains would enter this tank and likely following testing be discharged to the storm sewer system or pumped and sent to Bldg WD Bldg for treatment. It is unknown if the tank when the tank was taken out of service. However, from the interview, this building is not being*

SIGNATURE *AS Grantelli*

CLIENT EG&G Mound Applied Technologies		JOB NUMBER 10805-794	DATE 4/20/94	
JOB TITLE Active Underground Storage Tank Program		D&M TEAM Grantelli & DiSpirito		
TANK NO. 267	BLDG/LOCATION 37	EG&G SPONSOR D&D <i>proposed</i>	OWNER U.S. DOE	
TANK STATUS <i>Inactive.</i>	TANK CAPACITY (gallons) 500	INSTALLATION DATE 1966	INTERVIEWED WITH Bruno & Cloud	INTERVIEW DATE 2/24/94

SKETCH OF TANK/TANK SYSTEM:



COMMENTS:

used for radioactive material testing and the tank ~~manhole~~ is believed to have been bypassed to Tank 100. From the outside, the tank appears to be ^{disconnected} bare steel. Only the rusted & bolted down manhole cover was visible. Drawings do not indicate its removal.

~~And~~ Drawings indicate that the tank would only receive potentially radioactive wastewater and would be subject to regulations on the AEA.

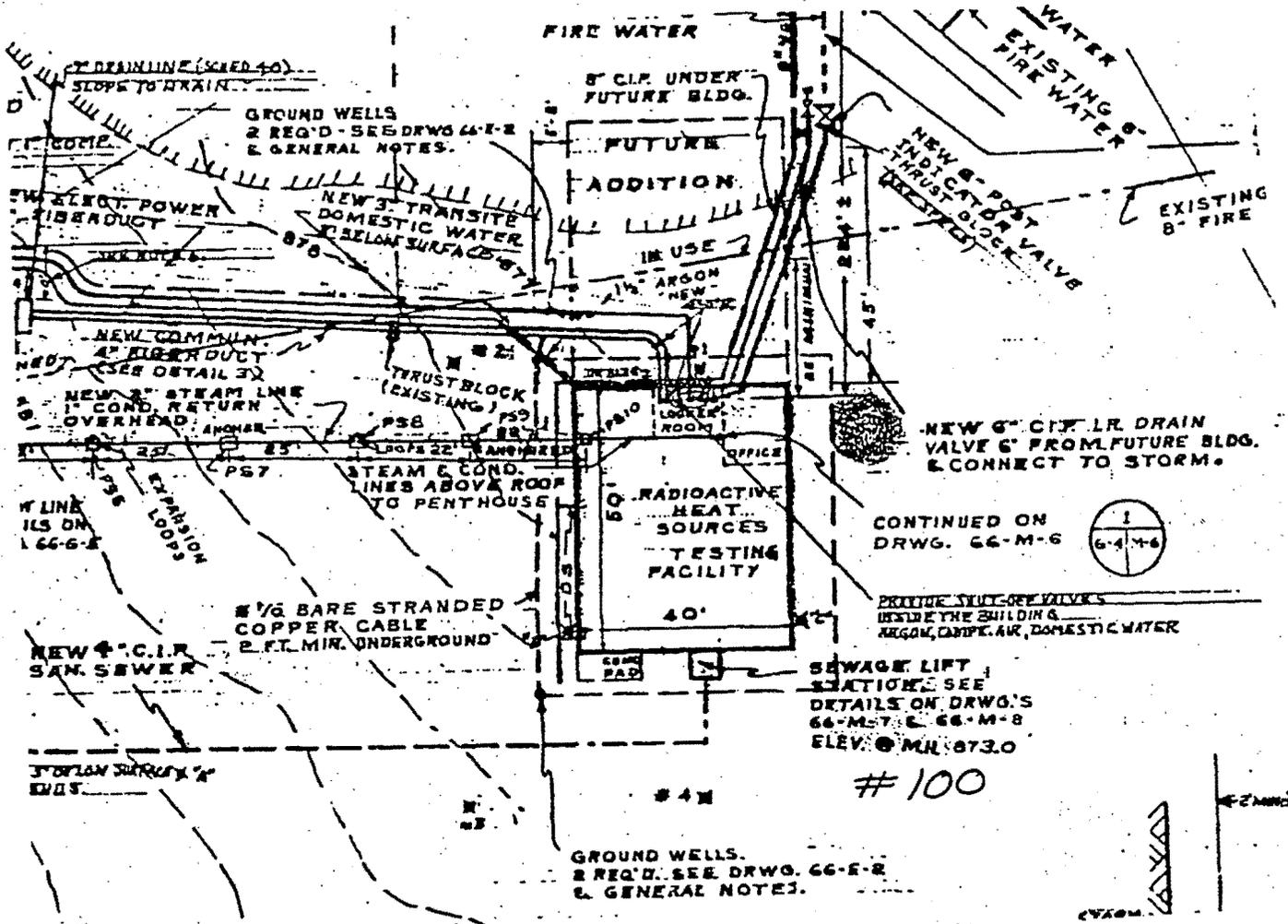
D&D should be notified of this tank.

SIGNATURE

Ad Grantelli

CLIENT EG&G Mound Applied Technologies		JOB NUMBER 10805-794	DATE 4/20/94	
JOB TITLE Active Underground Storage Tank Program		D&M TEAM Giantelli & Di Spirito		
TANK NO. 267	BLDG. LOCATION 37	EG&G SPONSOR - proposed D&D	OWNER U.S. DOE	
TANK STATUS Inactive	TANK CAPACITY (gallons) 500	INSTALLATION DATE 1966	INTERVIEWED WITH Bruno & Cloud	INTERVIEW DATE 2/24/94

SKETCH OF TANK/TANK SYSTEM:



COMMENTS:

SIGNATURE

As Giantelli

ATTACHMENT 2

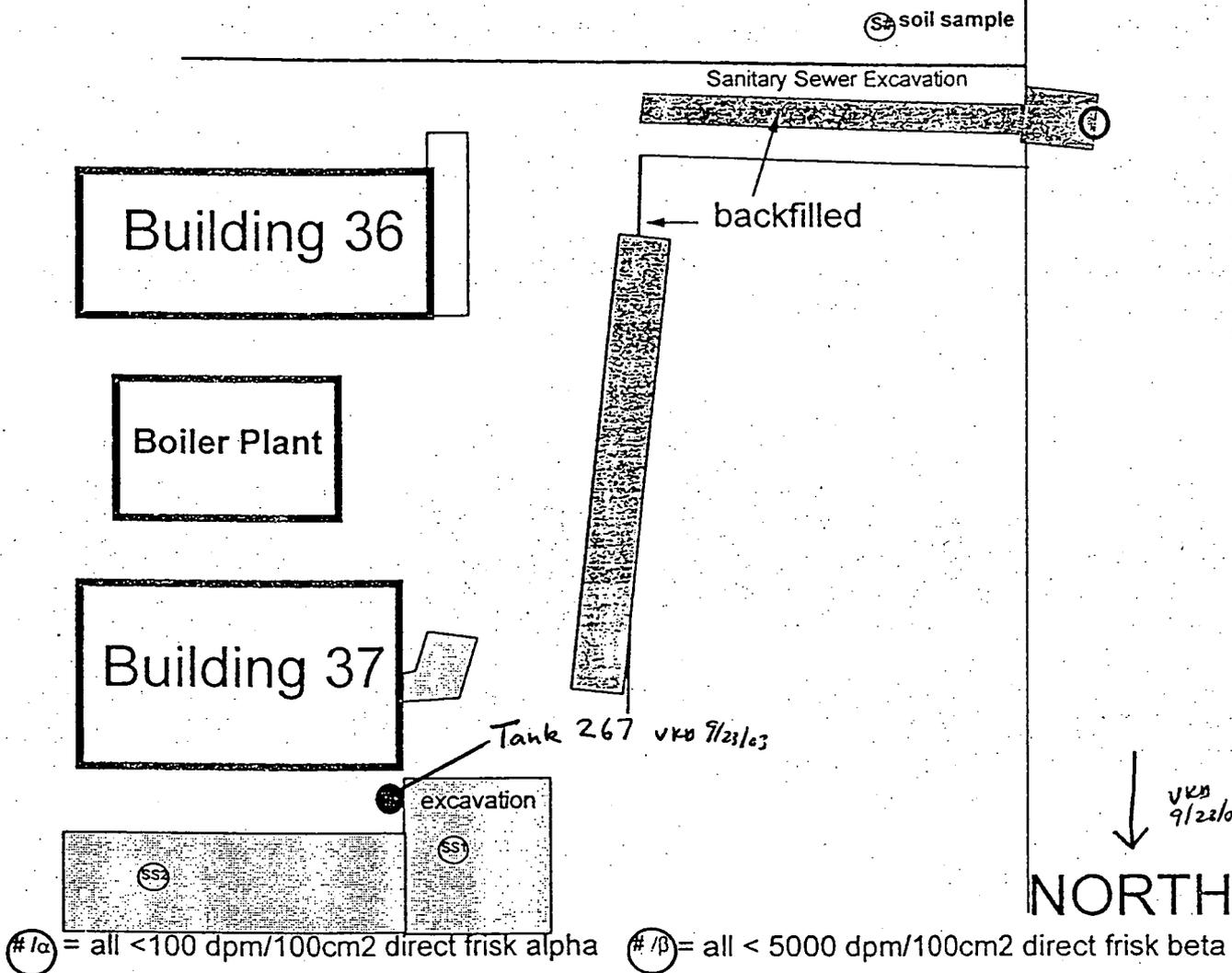
RADIOLOGICAL SURVEY DATA SHEET

#01-50-037

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM)	Building 37 North	SURVEY NO.	01-50-037
PURPOSE: Perform fidler survey of excavation for sewer, sample soil		RWP NO.	NA
		DATE:	02/21/01
		TIME:	1550

MAP/DRAWING



LEGEND:

- # = mrem/hr (γ) whole body
- # E = mrem/hr ($\beta+n+\gamma$) extremity on contact
- # (triangle) = mrem/hr neutron
- # = air sample number
- # (circle) = swipe number
- #/alpha or #/beta = direct contamination measurement in dpm/100cm2

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
NA	NA	NA
Fidler	3028/3851	03/14/01
	NA	

#	5214	Date:	02-21-01
#/alpha		Date:	
#/beta		Date:	
#	5706	Date:	03/08/01

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm2)				
Sample#	$\beta\gamma$	Alpha	Tritium	Comments
1				NA
2				NA
3				NA
4				NA
5				NA
6				NA
7				NA
8				NA
9				NA
10				NA
11				NA
12				NA
13				NA
14				NA
15				NA
16			NA	NA
17				NA
18				NA
19				NA
20				NA
21				NA
22				NA
23				NA
24				NA
25				NA
26				NA
27				NA
28		NA		NA
29				NA
30				NA
31				NA
32				NA
33				NA
34				NA
35				NA

Removable Contamination				
Swipes (dpm/100cm2)				
Sample#	$\beta\gamma$	Alpha	Tritium	Comment
36			NA	NA
37				NA
38				NA
39				NA
40				NA
41				NA
42				NA
43				NA
44				NA
45				NA
46				NA
47				NA
48				NA
49				NA
50				NA
51				NA
52				NA
53				NA
54			NA	NA
55				NA
56				NA
57				NA
58				NA
59				NA
60				NA
61				NA
62				NA
63				NA
64				NA
65				NA
66				NA
67				NA
68				NA
69				NA
70				NA

See attached data sheet

See attached data sheet

COMMENTS: No fidler readings detected on channels 1 or 2

NOTES:

1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO count Room analysis for $\beta\gamma$, 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.

SOIL ANALYSIS REPORT

FIELD SAMPLE ID:
LAB SAMPLE ID: ML10320
FILE ID: 1PT00016.S0
PRIORITY:

Description/Location:

PST SEWER SS21

Collector: 5214

Date Received: 2/21/01

Date Collected:

<u>Radionuclide</u>	<u>Activity (pCi/g)</u>	<u>MDA</u>	<u>MD-10438 Limit (pCi/g)</u>
Co-60 *	0.00	0.06	45,000
Cs-137 *	0.00	0.04	45,000
Pb-210	0.87	0.47	45,000
Ra-226	1.97	0.66	800
Ac-227 (D) *	0.07	0.19	40
Th-230 *	0.00	5.52	800
Th-232 (D)	0.86	0.17	130
Pu-238 *	5.04	11.44	500
Am-241 *	0.00	0.06	500

Other Nuclides:

<u>Radionuclide</u>	<u>Activity (pCi/g)</u>	<u>MDA</u>	<u>MD-10438 Limit (pCi/g)</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Σ DOT 0.02 nCi/g

Σ Respirator 0.04

Σ Respirator <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4.

Instrument type: High Purity Germanium

Σ DOT 2 nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation.

Comments:

Date: 3/1/01

Counted By: 6024

Analyzed By: 5613

INITIALS

SOIL ANALYSIS REPORT

FIELD SAMPLE ID:
LAB SAMPLE ID: ML10321
FILE ID: 2PT00021.S0
PRIORITY:

Description/Location:

PST SEWER SS22

Collector: 5214

Date Received: 2/21/01

Date Collected:

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
Co-60 *	0.00	0.01	45,000
Cs-137 *	0.00	0.01	45,000
Pb-210	0.82	0.24	45,000
Ra-226	1.64	0.30	800
Ac-227 (D)	0.11	0.09	40
Th-230 *	1.28	2.70	800
Th-232 (D)	0.73	0.04	130
Pu-238 •	0.00	7.21	500
Am-241 *	0.00	0.03	500

Other Nuclides:

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Σ DOT 0.01 nCi/g

Σ Respirator 0.03

Σ Respirator <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4.

Instrument type: High Purity Germanium

Σ DOT 2 nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation.

Comments:

Date: 3/1/01

Counted By: 6024

Analyzed By: 5613 INITIALS XXXXXXXXXX

2-21-01

ATTACHMENT 3

RADIOLOGICAL SURVEY DATA SHEET

#01-50-039

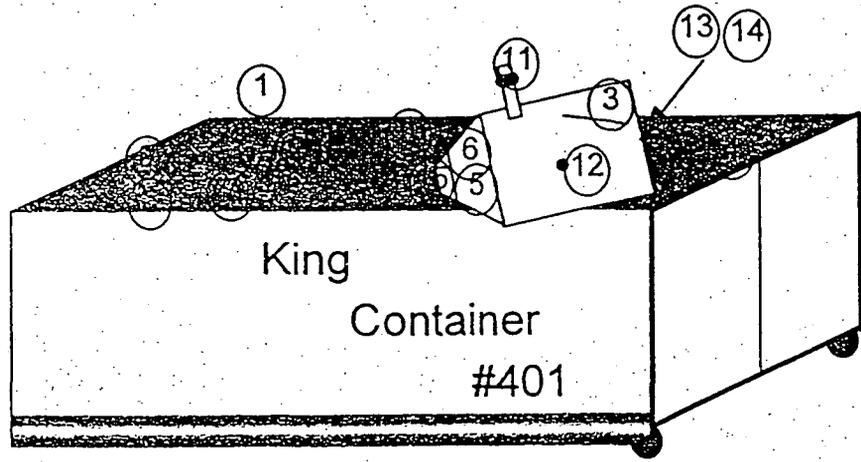
RADIOLOGICAL SURVEY DATA SHEET

37 vka 9/23/03

LOCATION: (BLDG./AREA/ROOM)	Building 36 North Outside	SURVEY NO.	01-50-039
PURPOSE: Survey Roll-Off (KING #401) dumpster for Staver Construction, P/WRE 092900-PST-01		RWP NO.	NA
		DATE:	02/26/01
		TIME:	1000

MAP/DRAWING

COPY



⊙_α = all < 100 dpm/100cm² direct frisk alpha ⊙_β = all < 5000 dpm/100cm² direct frisk beta

LEGEND: # = mrem/hr (γ) whole body # = mrem/hr neutron # = swipe number
 # E = mrem/hr (β+n+γ) extremity on contact # = air sample number ⊙_α or ⊙_β = direct contamination measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
NE	5348/5353	08/15/01
NA		

HP#	5214	Date:	02-26-01
HP#	5681	Date:	2-26-01
HP#	5706	Date:	02/26/01

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm2)				
Sample#	β/γ	Alpha	Tritium	Comments
1				right side
2				bags
3				pipe
4				door ledge
5				tank ext.
6				tank ext.
7				box
8				left rail top
9				front rail top
10				support plate
11				pipe&flange
12				tank penetration
13				tank interior
14				tank interior
15				tank penetration
16				NA
17				NA
18				NA
19				NA
20		NA		NA
21				NA
22				NA
23				NA
24				NA
25				NA
26				NA
27				NA
28				NA
29				NA
30				NA
31				NA
32				NA
33				NA
34				NA
35				NA

See attached data sheet

Removable Contamination				
Swipes (dpm/100cm2)				
Sample#	β/γ	Alpha	Tritium	Comments
36				NA
37				NA
38				NA
39				NA
40				NA
41				NA
42				NA
43				NA
44				NA
45				NA
46				NA
47				NA
48				NA
49				NA
50				NA
51				NA
52				NA
53				NA
54				NA
55				NA
56				NA
57				NA
58				NA
59				NA
60				NA
61				NA
62				NA
63				NA
64				NA
65				NA
66				NA
67				NA
68				NA
69				NA
70				NA

See attached data sheet

COMMENTS:

P/WRL PS-01-006

Misc. const. debris, mortar bags, conduit, boxes, lift station tank

NOTES:

1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO count Room analysis for β/γ , 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.

3-2083

Alpha/Beta Analysis

Batch ID: 01-50-039 RILEY BLDG.#36 NORTH OUTSIDE (15) CYR

Batch File: Smear Unit 1 - 200102261059

Group: J

Device: Unit 1

Geometry: Swipe/Smear

Serial Number: 64937

Acquisition Date: 2/26/2001

Count Time (min): 1.5

Recalibration Date: 5/17/2001

<u>Sample ID</u>	<u>Carrier</u>	<u>Alpha (dpm)</u>	<u>2σ</u>	<u>Beta (dpm)</u>	<u>2σ</u>
1	140	0.00	0.02	5.73	5.12
2	42	0.00	0.03	6.87	5.61
3	42	1.91	3.83	2.28	3.24
4	100	0.00	0.01	2.29	3.24
5	88	0.00	0.01	2.29	3.24
6	73	0.00	0.02	4.58	4.58
7	33	0.00	0.00	1.15	2.29
8	142	0.00	0.00	1.15	2.29
9	110	0.00	0.00	1.15	2.29
10	12	1.91	3.83	5.72	5.12
11	6	0.00	0.01	3.44	3.97
12	24	1.91	3.83	2.28	3.24
13	11	1.91	3.83	2.28	3.24
14	20	1.91	3.83	5.72	5.12
15	38	0.00	0.02	4.58	4.58

3-30-03

P343
5

ATTACHMENT 4

RADIOLOGICAL SURVEY DATA SHEET

#04-TF-0108

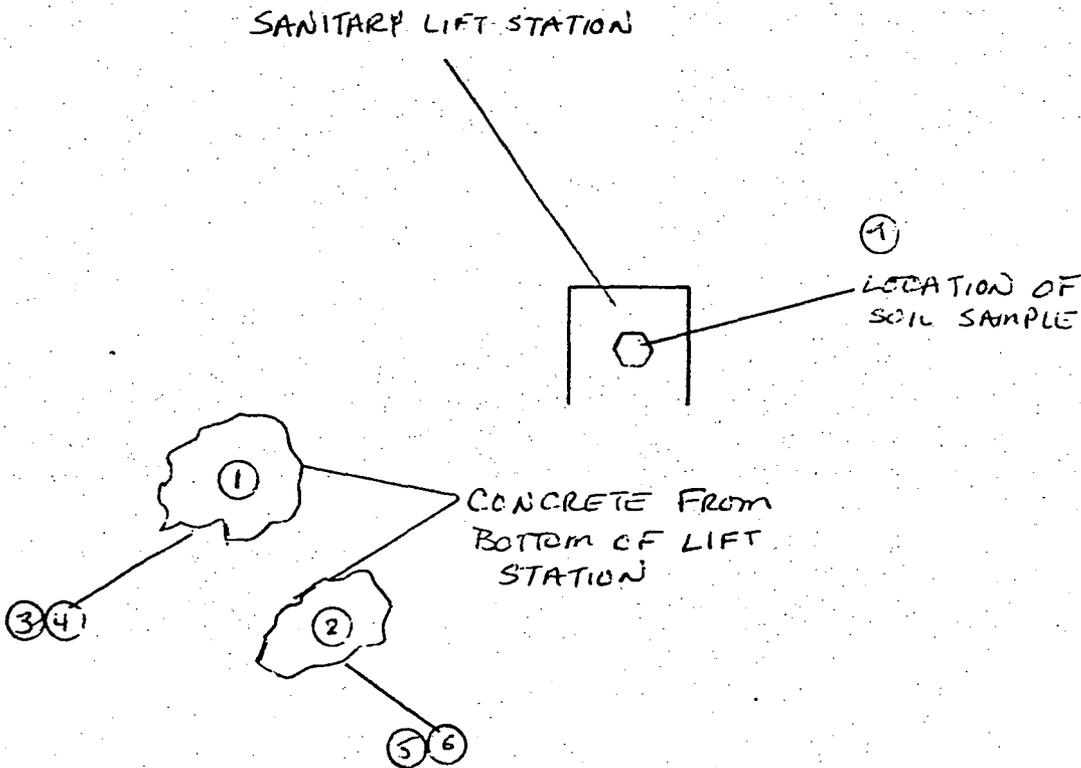
RADIOLOGICAL SURVEY DATA SHEET

1 of 4

LOCATION: (BLDG./AREA/ROOM)	37	SURVEY NO.	04-TF-0108
PURPOSE: CHARACTERIZATION OF SANITARY LIFT STATION		RWP NO.	N/A
		DATE:	3-22-04
		TIME:	1405

MAP/DRAWING

COPY



INTEGRATED COUNTS TAKEN IF ALPHA AUDIBLE DETECTED
 NO ALPHA AUDIBLE DETECTED. ALL RESULTS

$\frac{2100}{J}$ $\frac{2516}{B}$

LEGEND: # = mrem/hr (γ) whole body
 #E = mrem/hr ($\beta + \eta + \gamma$) extremity on contact

\triangle # = mrem/hr neutron
 # = air sample number

= swipe number
 #/ α or #/ β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
2360	5853/5847	3-2-05
	N/A	

HP #	Date:
6178	3-23-04
HP #	Date:
EA	
HP #	Date:
7492	3-24-04

RADIOLOGICAL SURVEY DATA SHEET

Removable Contamination				
Swipes (dpm/100cm ²)				
Sample #	β/γ	Alpha	Tritium	Comments
1	SEE ATTACHED		N/A	TOP
2	↓	↓	↓	TOP
3	↓	↓	↓	BOTTOM
4	↓	↓	↓	
5	↓	↓	↓	
6	↓	↓	↓	
7	↓	↓	↓	SAMPLE
N/A				

Removable Contamination				
Swipes (dpm/100cm ²)				
Sample #	β/γ	Alpha	Tritium	Comments
N/A				

COMMENTS: 2360 USED TO FIELD CHECK SMEARS PRIOR TO SENDING THEM TO COUNT LAB

- NOTES:
1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
 2. To request RO Count Room analysis for β/γ, 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 needed, mark N/A.

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Aqua
Data file name: SMEAR018
Batch Ended: 3/22/04 14:22

Crosstalk correction performed.

Recalibration Date: 03/18/05
Serial Number: 26966-1

Batch ID: HARVEY 04-TF-0108 [7] JC

Detector ID	Sample ID	Alpha Activity		
		DPM	σ	flags
A1	1	1.62	2.07	
A2	2	1.65	2.13	
A3	3	0.00	1.95	
A4	4	0.00	1.98	
B1	5	0.00	2.05	
B2	6	1.33	2.13	
B3	7	0.00	1.81	

Beta Activity		
DPM	σ	flags
7.62	3.53	
5.77	3.18	
0.00	1.21	
0.14	1.67	
3.89	3.08	
11.87	4.09	
0.00	1.21	

RGH

RGH

4-3084

3084

Page 1 of 1
RGH 3-23-04

J. Collins

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL00945
File ID: MG500504.s0
Priority: Yes

Description\Location

Soil Under Bd. 37 Sanitary Lift Station
Long Count

Collector: 6178

Date Received: 03/22/04

Date Collected: 03/22/04

<u>Radionuclide</u>		<u>Activity (pCi/g)</u>	<u>MDA</u>	<u>MD-10438 Limit (pCi/g)</u>
Co-60	*	0	0.02	45.000
Cs-137	*	0	0.03	45.000
Pb-210		0.86	0.53	45.000
Ra-226		0.8	0.5	800
Ac-227 (D)	*	0.08	0.14	40
Th-230	*	1.72	4.59	800
Th-232 (D)		0.18	0.08	130
Pu-238	*	0	16.18	500
Am-241	*	0.03	0.04	500

Other Nuclides

<u>Radionuclide</u>	<u>Activity (pCi/g)</u>	<u>MDA</u>	<u>MD-10438 Limit (pCi/g)</u>
U-238D	0.64	0.3	

\sum_{DOT} 0.02 nCi/g $\sum_{\text{Respirator}}$ 0.04

^Σ Respirator < 1 indicates soil levels below limit. Instrument type: High Purity Germanium
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4.

^Σ DOT 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

DGA H of Y

Comments:

04-TF-0108

Date: 03/23/04 Counted By: 5288 Analyzed By: 7559 Initials: XXXXXXXXXX

4-4-04