

**DMSA OS-14**  
**Solid Waste Management Unit (SWMU) Assessment Report**

**SWMU/AOC NUMBER:** 225

**DATE OF ORIGINAL SAR:** 12/01/00

**DATE OF SAR REVISIONS:** 03/15/09, 01/15/11

**REGULATORY STATUS:** SWMU

**LOCATION:** South of C-533-1, west of C-633 Cooling Towers.

**APPROXIMATE DIMENSION OR CAPACITY:** 7,800 ft<sup>2</sup>

**FUNCTION:** Temporary storage of materials.

**BRIEF HISTORY:** This SWMU was used for rail car storage. This area was deleased by the United States Enrichment Corporation to the U.S. Department of Energy (DOE) as a DOE Material Storage Area (DMSA) on December 31, 1996. From July 27, 2001, to August 10, 2001, DOE characterized the materials in this DMSA in accordance with the DMSA Characterization/Remediation Plan, which was incorporated as Appendix E of the 2003 Agreed Order. The *Final Inventory and Characterization Report* (FI/CR) was submitted August 2001, to the Kentucky Division of Waste Management (KDWM). KDWM approved the FI/CR on April 15, 2004. Per the 2003 Agreed Order, Resource Conservation and Recovery Act closure was not required for this SWMU, because no hazardous wastes were stored in this unit. This SWMU was used as a staging/storage area for DMSA materials until 2006 without any spills or releases.

**PRESENT OPERATIONAL STATUS:** Inactive

**DATES OPERATED:** Unknown to 2006

**SITE/PROCESS DESCRIPTION:** An outside DOE storage area located within the Paducah Gaseous Diffusion Plant fenced security area.

**WASTE DESCRIPTION:** The SWMU currently is empty. Low-level waste formerly stored included a hose cabinet, five rail tank cars, and three rail flat cars. A detailed description of the characterized waste formerly stored in the SWMU can be found in the FI/CR.

**WASTE QUANTITY:** Currently 0 ft<sup>3</sup>; waste quantity removed 12,822 ft<sup>3</sup>

**SUMMARY OF ENVIRONMENTAL SAMPLING DATA:** A gamma walk-over survey of this DMSA was conducted on August 12, 2005, by Radiological Control Technicians. Attachment 1 presents the radiological survey results and map showing the survey locations. The Radiological Materials Area (RMA) boundary shown on the survey map is the same as the DMSA boundary. No radiological readings greater than two times (2X) background were detected. The 2X background level is an administrative level for gamma walk-over surveys to determine if

radiological contamination is present; therefore, the area was no longer posted as an RMA as of August 12, 2005.

**DESCRIPTION OF RELEASE AND MEDIA AFFECTED:** None known

<b>GROUNDWATER:</b>	None known
<b>SURFACE WATER:</b>	None known
<b>SOIL:</b>	None known
<b>ECOLOGY AFFECTED:</b>	None known

(i.e., threatened/endangered species)

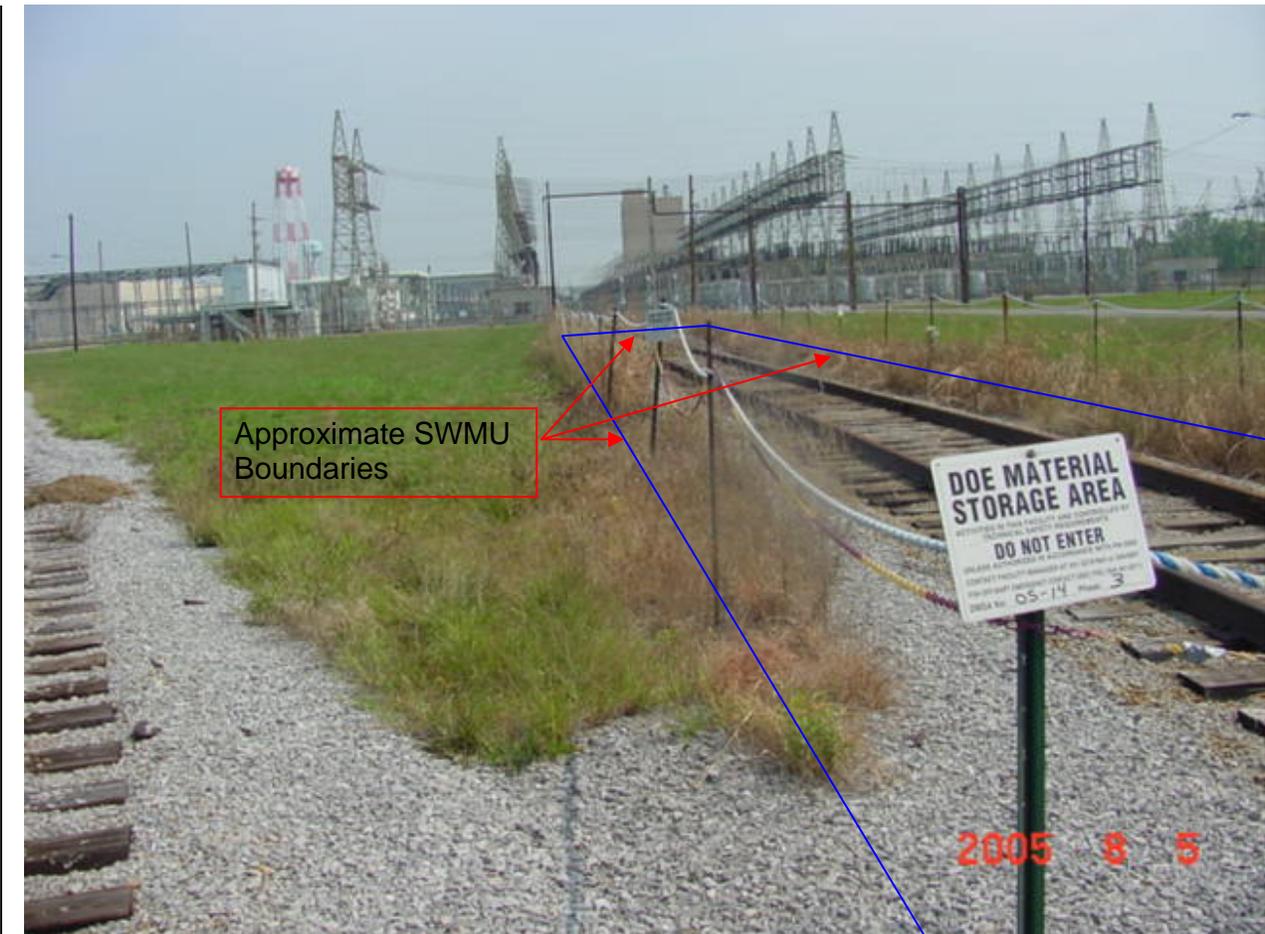
**DOCUMENTATION OF NO RELEASE:** No documents were identified indicating a spill or release at this unit.

**IMPACT ON OR BY OTHER SWMU/AOC:** There is no evidence that this SWMU impacts or is being impacted by other SWMUs.

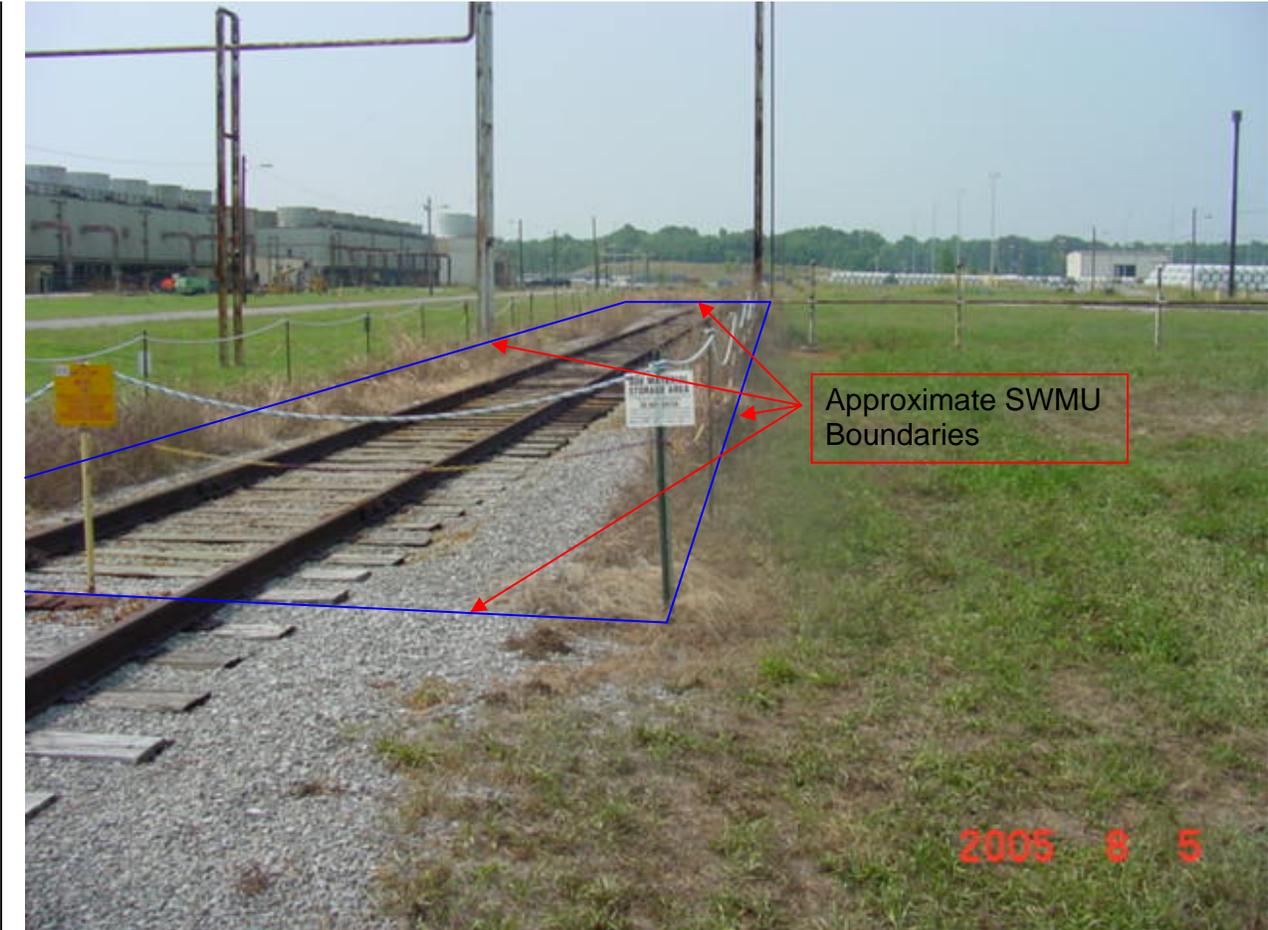
**PRG COMPARISON:** N/A

**RFI NECESSARY:** No. This unit is being proposed for no further action because it no longer is active, has no evidence of releases to the environment, and is not believed to pose a risk to human health or the environment.

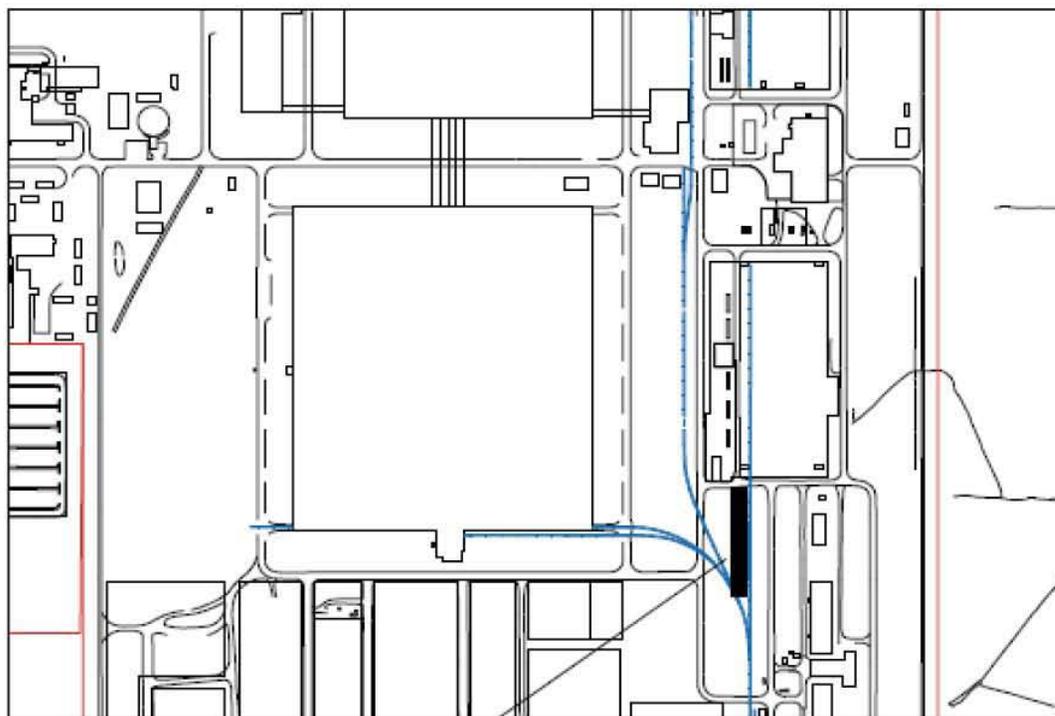
**OPERABLE UNIT ASSIGNMENT:** N/A



**SWMU 225 (Looking North)  
DMSA OS-14  
August 5, 2005**



**SWMU 225 (Looking South)  
DMSA OS-14  
August 5, 2005**



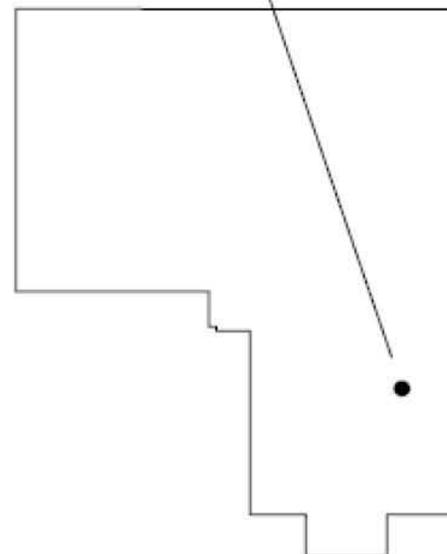
SWMU 225  
Outside  
DMSA-14

LEGEND

 OFFICIAL DOE DMSA's PER 12/01/96  
AGREEMENT BETWEEN DOE AND USEC



SWMU 225



Paducah Gaseous Diffusion Plant

Outside Areas - SWMU 225

U.S. DEPARTMENT OF ENERGY  
DOE PORTSMOUTH/PADUCAH PROJECT OFFICE  
PADUCAH GASEOUS DIFFUSION PLANT



LATA Environmental Services  
of Kentucky, LLC

## **ATTACHMENT 1**

### **RADIOLOGICAL SURVEY RESULTS AND MAP ILLUSTRATING SURVEY LOCATIONS**



RADIOLOGICAL SURVEY MAP FORM

COPY

SURVEY MAP	SURVEY NO.: <u>05-DM-1049-S</u>	
<p><b>Legend:</b></p> <p>A Air Sample Location      □ Beta or Gamma Dose Rate      ○ → LAW</p> <p>○ Smear Direct Reading Location      △ Neutron Dose Rate</p>		
<p>Bkgd Readings</p> <p>#1 <u>22,910</u></p> <p>#2 <u>32,652</u></p> <p>#3 <u>44,061</u></p> <p>Av. <u>33,874</u></p> <p>Fidlar</p> <p>Mkr # <u>211802</u></p> <p>* * RMA Boundary</p>		<p>05-14 DMSA</p> <p>Bkgd Readings</p> <p>#1 <u>19,528</u></p> <p>#2 <u>30,335</u></p> <p>#3 <u>43,767</u></p> <p>Av. <u>31,210</u></p> <p>Fidlar</p> <p>Mkr # <u>211800</u></p> <p>AW</p>

COPY

Survey Number: OS-DM-0720R Completion Date 8-17-05

Page 1 of 3

Survey / Annually	Inspection/ Annually	Location ID: 310	Survey Control No: 11994
Building Number: <u>Outside</u>	Location Description: <u>South of C-533-1 - 4 Tank Cars/4 Flatbeds</u>		
Survey Type: <u>GM Walkover</u>	Due Date: <u>8/22/2005</u>	Grace Period Date: <u>9/6/2005</u>	
Rad Posting: <u>RMA</u>	Level Of Effort: <u>1.5</u>	Square Feet: <u>4000</u>	
BJC Contact: <u>E. King</u>	Charge Number: <u>RRLJ2502</u>	SWMU Number: <u>N/A</u>	
DMSA Number: <u>DMSA-14</u>			

Performed By: M. Morin Tech Time: 0

	# Of Smears		# Of LAWs		# Of Totals		# Of Dose Rates	
	Alpha	Beta/Gamma	Alpha	Beta/Gamma	Alpha	Beta/Gamma	Measurements	
Total Measurements								
<b>Measurement Results</b>								
<Lc							Max	Min
>Lc<Limit								
>Limit<100 X Limit								
>100 X Limit							uR/hr mR/hr	uR/hr mR/hr

If this location is not a DOE radiologically posted area, is this location within a USEC radiological zone? Yes \_\_\_ No \_\_\_

RCT Comments/Observations:

This zone has been decommissioned from an RMA on 8/12/05

Matt Morin

**RADCON Location Inspection Report**

Description	YES	NO	N/A
1. Does the posting seem appropriate for the area?			
2. Is there a sufficient number of signs and are they spaced appropriately?			
3. Are the signs in good condition?			
4. Do the signs have consistent wording?			
5. Is the barrier/boundary functional and in good condition, where appropriate?			
6. Are there any leaks in the area?			
7. Are there any housekeeping concerns in the area?			

Matt Morin

### Radiological Survey Form

Page 2 or 1 **COPY**

Survey No.: 05-DM-0720-R Date: 8/17/05 Time: 1000 RWP NO.: N/A  
 Location of Survey-General (Site/Bldg.) Outside Specific (Room/Area/Item): South of C-533-1-4 Tank Cars/Flatbeds  
 Purpose of Survey:  Routine  Special  Off-Site Release  Radioactive Shipment Receipt  Radioactive Pre-Shipment  Radioactive Shipment

Material Description: General Area-Annual GM Walkover with Random LAWs of Rad Material

Technician: <u>/</u>	Badge: _____	Technician: <u>/</u>	Badge: _____
Model# _____	Serial# _____	Cal Due Date: _____	Probe Model# _____
Model# _____	Serial# _____	Cal Due Date: _____	Bkgd (cpm): _____
Model# _____	Serial# _____	Cal Due Date: _____	CFPT: _____
Model# _____	Serial# _____	Cal Due Date: _____	CF Plane: _____
Model# _____	Serial# _____	Cal Due Date: _____	CF Plane: _____
Model# _____	Serial# _____	Cal Due Date: _____	CF Plane: _____
Model# _____	Serial# _____	Cal Due Date: _____	α Bkgd:(cpm) _____
Model# _____	Serial# _____	Cal Due Date: _____	B/γ Bkgd(cpm): _____
Model# _____	Serial# _____	Cal Due Date: _____	α Bkgd:(cpm) _____
Model# _____	Serial# _____	Cal Due Date: _____	B/γ Bkgd(cpm): _____
Model# _____	Serial# _____	Cal Due Date: _____	αCF: _____
Model# _____	Serial# _____	Cal Due Date: _____	B/γCF: _____

Laboratory Results Attached? Yes \_\_\_\_\_ No X (If yes, see attached results)

Item No.	Removable α dpm/100cm <sup>2</sup>	Total α dpm/100cm <sup>2</sup>	Removable B/γ dpm/100cm <sup>2</sup>	Total B/γ dpm/100cm <sup>2</sup>	LAW α dpm/wipe	LAW β dpm/wipe	Sample Location and/or Remarks	RCT Initials
Lc	N/A	N/A	N/A				N/A	
	N/A	N/A	N/A					
	N/A	N/A	N/A					
	N/A	N/A	N/A					
	N/A	N/A	N/A					
	N/A	N/A	N/A					
	N/A	N/A	N/A					
	N/A	N/A	N/A					
	N/A	N/A	N/A					
	N/A	N/A	N/A					
	N/A	N/A	N/A					
	N/A	N/A	N/A					
	N/A	N/A	N/A					
	N/A	N/A	N/A					

Comments: \_\_\_\_\_

Note: Any response to the instrument that is above the critical detection level(L<sub>c</sub>) is considered to be above background.

Released to: N/A  
PAD:RCO-031A Rev. 6 (5/05)

HP Supervisor Review: \_\_\_\_\_  
Signature/Date

**RADIOLOGICAL SURVEY MAP FORM**

**COPY**

SURVEY MAP

SURVEY NO.: 05-DM-0720 -R

**Legend:**

A Air Sample Location  
○ Smear

□ Beta or Gamma Dose Rate  
△ Neutron Dose Rate

○ ~~~~~> LAW

N/A