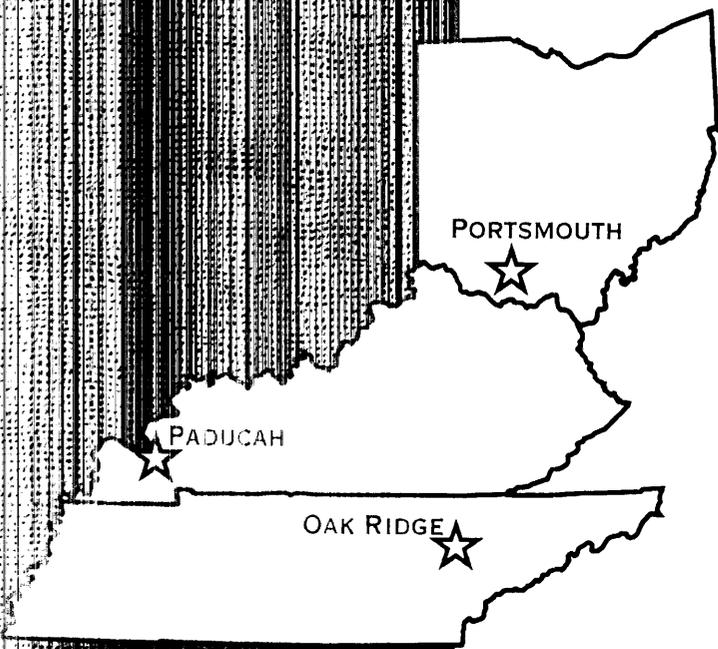




BJC/PAD-386

ENVIRONMENTAL MANAGEMENT
& ENRICHMENT FACILITIES
MANAGEMENT AND INTEGRATION CONTRACT

**Final Inventory/Characterization
Report for the C-331-11
Department of Energy
Material Storage Area at the
Paducah Gaseous Diffusion Plant,
Paducah, Kentucky**



MANAGED BY
BECHTEL JACOBS COMPANY, LLC
FOR THE UNITED STATES
DEPARTMENT OF ENERGY

This document has received the appropriate reviews
for release to the public.

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**Final Inventory/Characterization Report for the C-331-11
Department of Energy Material Storage Area (DMSA)
at the Paducah Gaseous Diffusion Plant,
Paducah, Kentucky**

Date Issued – September 11, 2002

Prepared by
WESKEM, LLC
Under subcontract 23900-BA-RM005F
Prepared for the
US Department of Energy
Office of Environmental Management

BECHTEL JACOBS *COMPANY* LLC
managing the
Environmental Management Activities at the
East Tennessee Technology **Park**
Oak Ridge Y-12 Plant *Oak* Ridge National Laboratory
Paducah Gaseous Diffusion Plant Portsmouth Gaseous Diffusion Plant
Under contract DE-AC05-98OR22700
for the
U.S. DEPARTMENT OF ENERGY

This report is an abridged edition. The following sections have been omitted from this report, but are included in the full report.

C-331-11 DMSA ZONE MAP

HP SURVEY DATA

REUSABLE MATERIAL E-FORMS

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ACRONYMS

DMSA	Department of Energy Material Storage Area
DOE	Department of Energy
dpm	Disintegration per Minute
EPA	Environmental Protection Agency
ft ²	Square Feet
ft ³	Cubic Feet
HP	Health Physics
IH	Industrial Hygiene
lbs	Pounds
Lc	Level Sub C
LLW	Low Level Waste
NCS	Nuclear Criticality Safety
PCB	Polychlorinated Biphenyl
PEL	Permissible Exposure Limits
PGDP	Paducah Gaseous Diffusion Plant
RCRA	Resource Conservation and Recovery Act
SME	Subject Matter Expert
SWMU	Solid Waste Management Unit
TLV	Threshold Limit Value
TSCA	Toxic Substances Control Act
USEC	United States Enrichment Corporation

Executive Summary

The C-331-11 Department of Energy Materials Storage Area (DMSA) occupies approximately 1,100 square feet (ft²) of space in the southwest quadrant of the C-331 Process building at the Paducah Gaseous Diffusion Plant (PGDP). C-331-11 has also been identified as Solid Waste Management Unit (SWMU) #245. Four Non-polychlorinated Biphenyl (PCB) dry type transformers are stored in this DMSA. The inspections revealed the equipment to be direct replacement for like items currently in use in the plant. **As** a result, the equipment was identified for possible return for future use. The equipment has a volume of approximately 1,816 cubic feet (ft³) with a weight of approximately 57,000 pounds (lbs). This DMSA was initially classified as a Phase 1 DMSA (not fully characterized and expected to have no fissionable material). It now qualifies as a Phase 3 DMSA since it is fully characterized and contains no fissionable material.

RCRA/Mixed

There were no Resource Conservation Recovery Act (RCRA)/Mixed items identified in this DMSA.

TSCA/PCB

There were no Toxic Substance Control Act (TSCA)/PCB items identified in this DMSA.

Solid Waste

During the characterization activities, no solid waste was identified.

LLW

No low level waste (LLW) items were identified in this DMSA.

Reusable Materials

The transformers have been identified by DMSA Identification tags and barcodes for future identification purposes and will remain in the DMSA until reuse. Also, E-forms (reusable materials forms) have been prepared to indicate the potential for reuse.

NCS

Nuclear Criticality Safety (NCS) characterization forms have been completed and indicate no NCS concerns in this DMSA

IH

All Industrial Hygiene (IH) data have been reviewed. All quality control samples were within normal acceptable guidelines. No personnel were exposed to any airborne concentrations above a permissible exposure limit (PEL) or threshold limit value (TLV).

HP

Health Physics (HP) conducted smear samples. According to the radiological surveys the highest Alpha reading was 115 disintegrations per minute (dpm)/100cm² on the floor and the highest Beta/Gamma reading was 19,938 dpm/100cm² on a transformer.

Safety

There were no accidents or injuries associated with the characterization of this DMSA.

A Health and Safety Officer was present during the activities and all workers were given Stop Work authority.

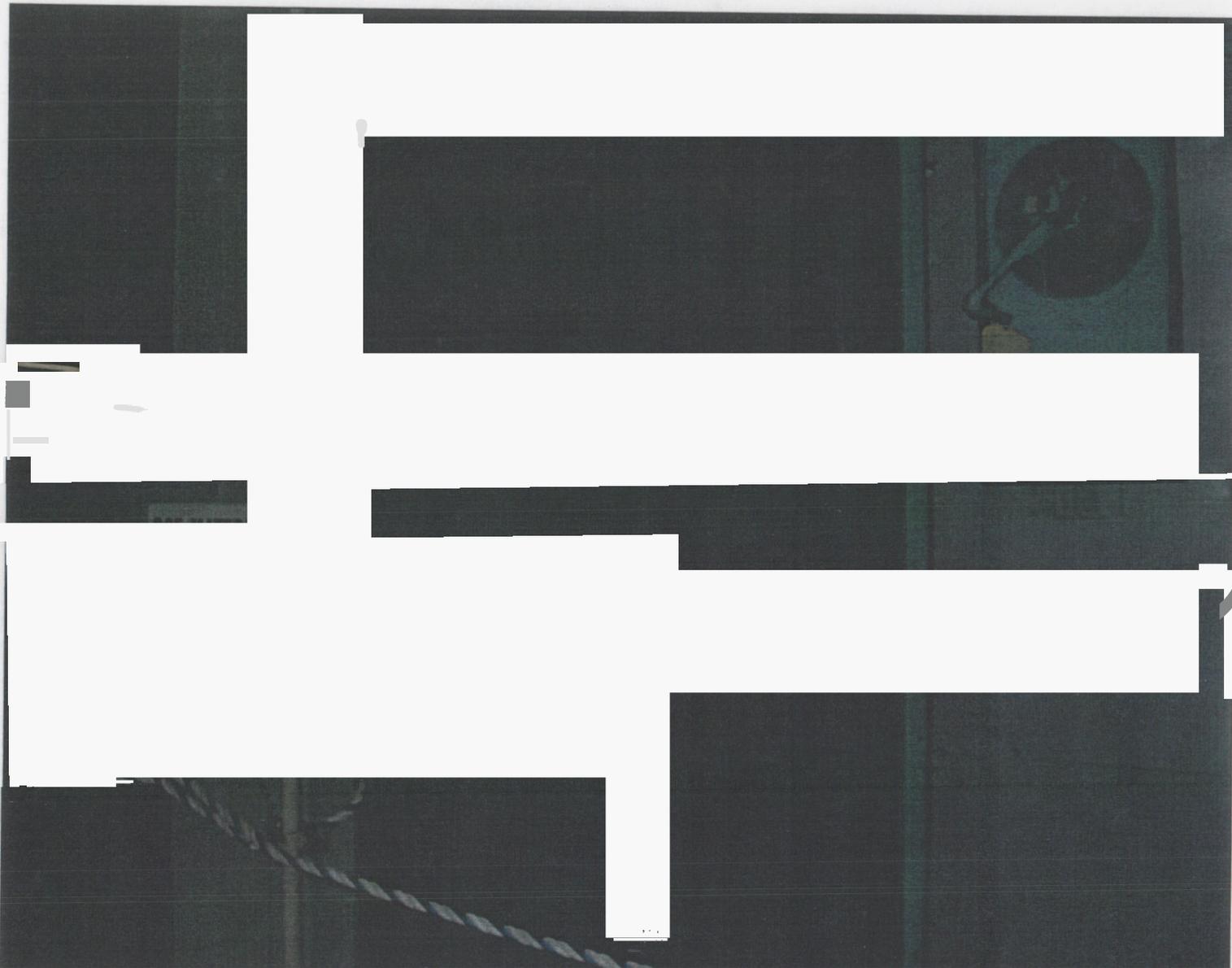
Photographs of the area and the transformers were taken to document activities. Some of the photos are included in this report.

Boundary Definition Rope and Labeling for DMSA C-331-1 ■



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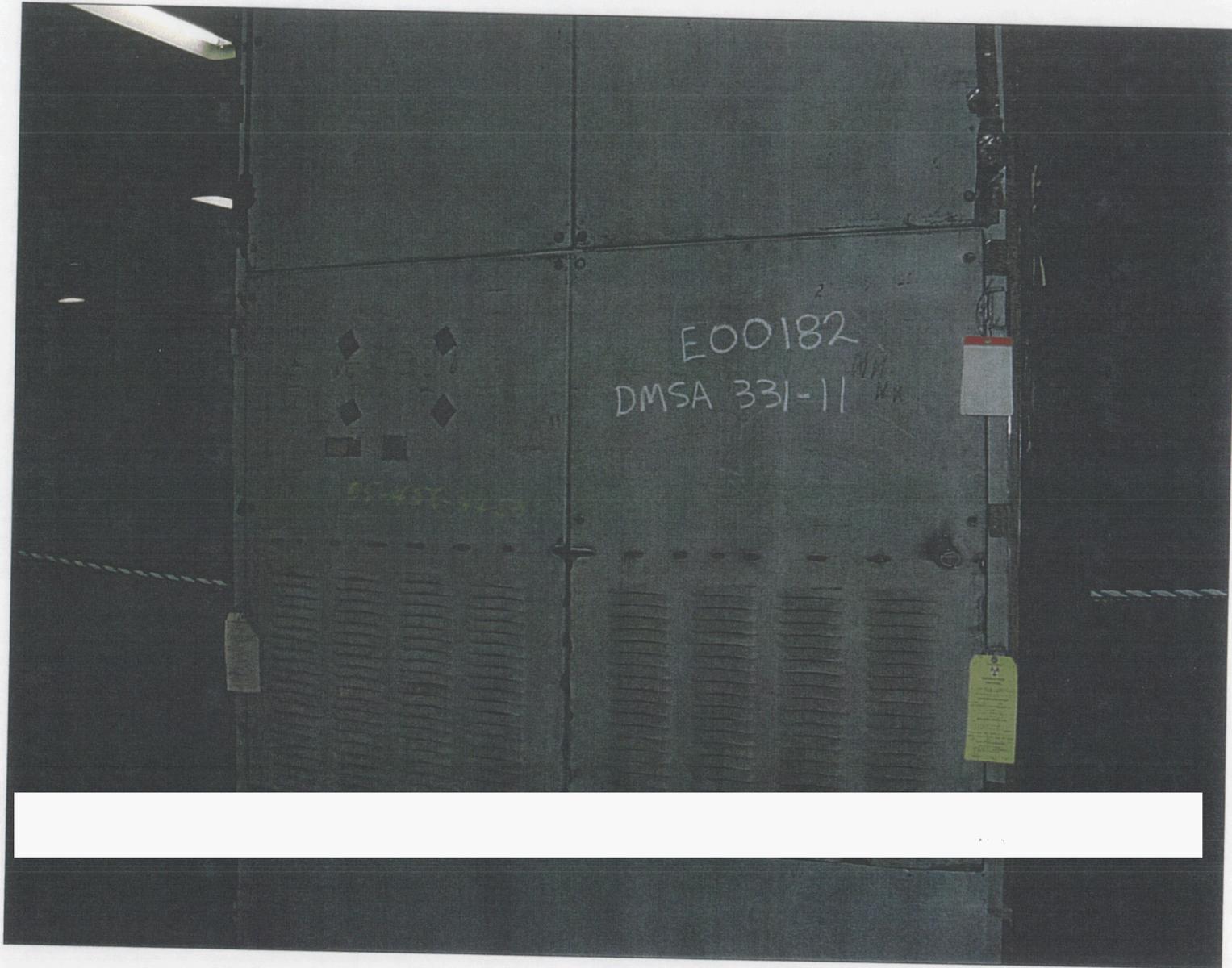
View of Transformers in DMSA C-331-11



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View of Transformers in DMSA C-331-11



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C-331-11 REUSABLE MATERIAL INVENTORY

Description	Original E#	Material Classification	Column #	Barcode	# Items	Estimated Volume (ft³)	Estimated Weight (lbs)	Material Transferred to USEC
Transformer (Auxillary)	E00181	Reusable	1	DMSA0111439	1	322	12,000	No
Transformer ("00" Process)	E00182	Reusable	1	DMSA0111440	1	474	15,000	No
Transformer ("00" Process)	E00183	Reusable	1	DMSAOI11441	1	546	15,000	No
Transformer ("00" Process)	E00184	Reusable	1	DMSA0111442	1	474	15,000	No

Total Estimated Volume (ft³)
1,816

Total Estimated Weight (lbs)
57,000

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