

DOE Contract No. DE-AC05-98OR22700
Job No. 23900
April 17, 2003

U.S. Department of Energy
Portsmouth Site Office
Post Office Box 700
Piketon, Ohio 45661

Attention: Mr. Russell J. Vrainicar, Acting Site Manager

Subject: Transmittal of Uranium Enrichment (UE) Toxic Substances Control Act (TSCA) Federal Facilities Compliance Agreement (FFCA) 1st Quarterly Progress Report for the Portsmouth Gaseous Diffusion Plant

Dear Mr. Vrainicar:

Attached is the UE TSCA FFCA Report for the first quarter of calendar year 2003. This report documents progress on UE TSCA FFCA activities for January 1, 2003 through March 31, 2003 as required. This report is not required to be forwarded to the United States Environmental Protection Agency.

If this report meets with your approval, please transmit two copies of this report with attachments to Mr. Howard Huie at the Department of Energy Headquarters.

If you have any questions or need additional information, please contact Lewis Goidell at extension 3844.

Sincerely,

Gilbert D. Drexel
Manager of Projects

GDD/LCG/cm
LTR-WD-CM-03-31

Attachment: Uranium Enrichment (UE) Toxic Substances Control Act (TSCA) Federal Facilities Compliance Agreement (FFCA) 1st Quarterly Progress Report for the Portsmouth Gaseous Diffusion Plant

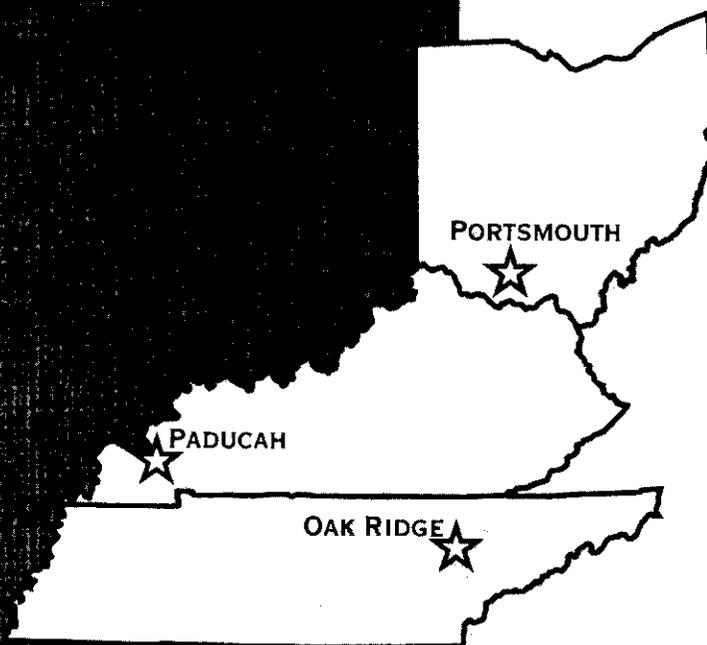
cc/att: Don Echols
Scott Kelly
Gary Kephart (w/o Attachment)
Tom Marshall
Gregg Pennington, ETPP (w/o Attachment)
Mary Williams
File - PORTS DMC - RC
File - STR File
File - Waste Disposition



BJC/PORTS-460

ENVIRONMENTAL MANAGEMENT
& ENRICHMENT FACILITIES
MANAGEMENT AND INTEGRATION CONTRACT

**Uranium Enrichment
Toxic Substances Control Act
Federal Facilities Compliance Agreement
Calendar Year 2003
First Quarter Progress Report,
January 1, 2003 Through March 31, 2003
Portsmouth Gaseous Diffusion Plant,
Piketon, Ohio**



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

This document is approved for public release
per review by:

Henry H. Thomas 04/11/03
BJC Classification/Information Office Date

**Uranium Enrichment
Toxic Substances Control Act
Federal Facilities Compliance Agreement
Calendar Year 2003
First Quarter Progress Report,
January 1, 2003 Through March 31, 2003,
Portsmouth Gaseous Diffusion Plant,
Piketon, Ohio**

Date Issued—April 2003

Prepared by
WASTREN, Inc.
Under subcontract 23900-BA-SM046F

Prepared for the
U.S. Department of Energy
Office of Environmental Management

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

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ACRONYMS

COD	Certificate of Disposal
DOE	U.S. Department of Energy
EPA	U.S. Environmental Protection Agency
PCB	polychlorinated biphenyl
PORTS	Portsmouth Gaseous Diffusion Plant
TSCA	Toxic Substances Control Act
UE TSCA FFCA	Uranium Enrichment Toxic Substances Control Act Federal Facilities Compliance Agreement

1. INTRODUCTION

The Uranium Enrichment Toxic Substances Control Act Federal Facilities Compliance Agreement (UE TSCA FFCA) requires quarterly reports to be prepared summarizing progress toward completing interim and compliance measures. These measures include items such as troughing, air sampling, process lubrication oil removal, spill cleanup, electrical cables and associated equipment, and disposal. Information in the quarterly reports is required to be included in the U.S. Department of Energy's (DOE) annual compliance agreement report. The DOE annual compliance agreement report must be submitted to the U.S. Environmental Protection Agency (EPA) by July 1 following completion of each calendar year. These quarterly reports are not required to be submitted to EPA. However, the reports must remain on site and be available for EPA inspection. The following summaries satisfy the UE TSCA FFCA quarterly reporting requirements.

2. INTERIM MEASURES

2.1 TROUGHING

The UE TSCA FFCA required that all motor exhaust gasket flanges be troughed to capture polychlorinated biphenyl (PCB) drips by March 30, 1994. During the troughing project the following were installed: (1) 4909 motor exhaust duct troughs in the X-330 building, (2) 4434 motor exhaust duct troughs in the X-326 building, and (3) 6685 motor exhaust duct troughs in the X-333 building. DOE-Headquarters personnel inspected the troughing on March 22, 1994. Subsequently, the DOE Portsmouth Site Office certified the troughing project complete on March 30, 1994. Based upon this documentation, the UE TSCA FFCA commitment was closed for the Portsmouth Gaseous Diffusion Plant (PORTS). (Refer to *The Polychlorinated Biphenyl Annual Compliance Agreement Report for the Portsmouth Gaseous Diffusion Plant, Appendix B*, POEF-MMES-12, May 1995 for additional information.)

2.2 AIR SAMPLING

PCB air sampling must be conducted quarterly in uranium enrichment process buildings with motor exhaust systems. Buildings in which air samples are taken are the X-333, X-330, and X-326 buildings at PORTS. At least five air samples must be taken per process building per year. In accordance with the UE TSCA FFCA, selection of the required air sample locations is conducted by identifying four random sampling sites and one best engineering judgment sample site per building. The results of air samples taken for this reporting period are shown in Table 1.

None of the sample results exceeded the UE TSCA FFCA reportable quantity of 0.5 micrograms per cubic meter. Samples were collected and analyzed in accordance with the National Institute for Occupational Safety and Health Analytical Method 5503 for PCBs.

Table 1. First quarter calendar year 2003 UE TSCA FFCA air sampling results

Sample ID Number	Bldg.	Area/Floor	Sample Coordinate	Results ($\mu\text{g}/\text{m}^3$)	Min. Detectable Concentration ($\mu\text{g}/\text{m}^3$)	Method of Selection	Sample Date
WIH 020403-01	X-326	Operating Floor	T36	0.14	0.02 ¹	RS ⁵	02/04/03
WIH 020403-02	X-330	Cell Floor	Q53	0.02	0.02 ²	RS	02/04/03
WIH 020403-03	X-333	Operating Floor	Ux40	0.12	0.02 ³	RS	02/04/03
WIH 020403-04	X-326	Operating Floor	G80	0.21	0.02 ⁴	BEJ ⁶	02/04/03

¹ Detection limit based on an eight hour, 470-liter air sample at a flow rate of approximately 0.979 liter per minute.

² Detection limit based on an eight hour, 475-liter air sample at a flow rate of approximately 0.990 liter per minute.

³ Detection limit based on an eight hour, 470-liter air sample at a flow rate of approximately 0.980 liter per minute.

⁴ Detection limit based on an eight hour, 474-liter air sample at a flow rate of approximately 0.987 liter per minute.

⁵ RS = randomly selected

⁶ BEJ = best engineering judgement

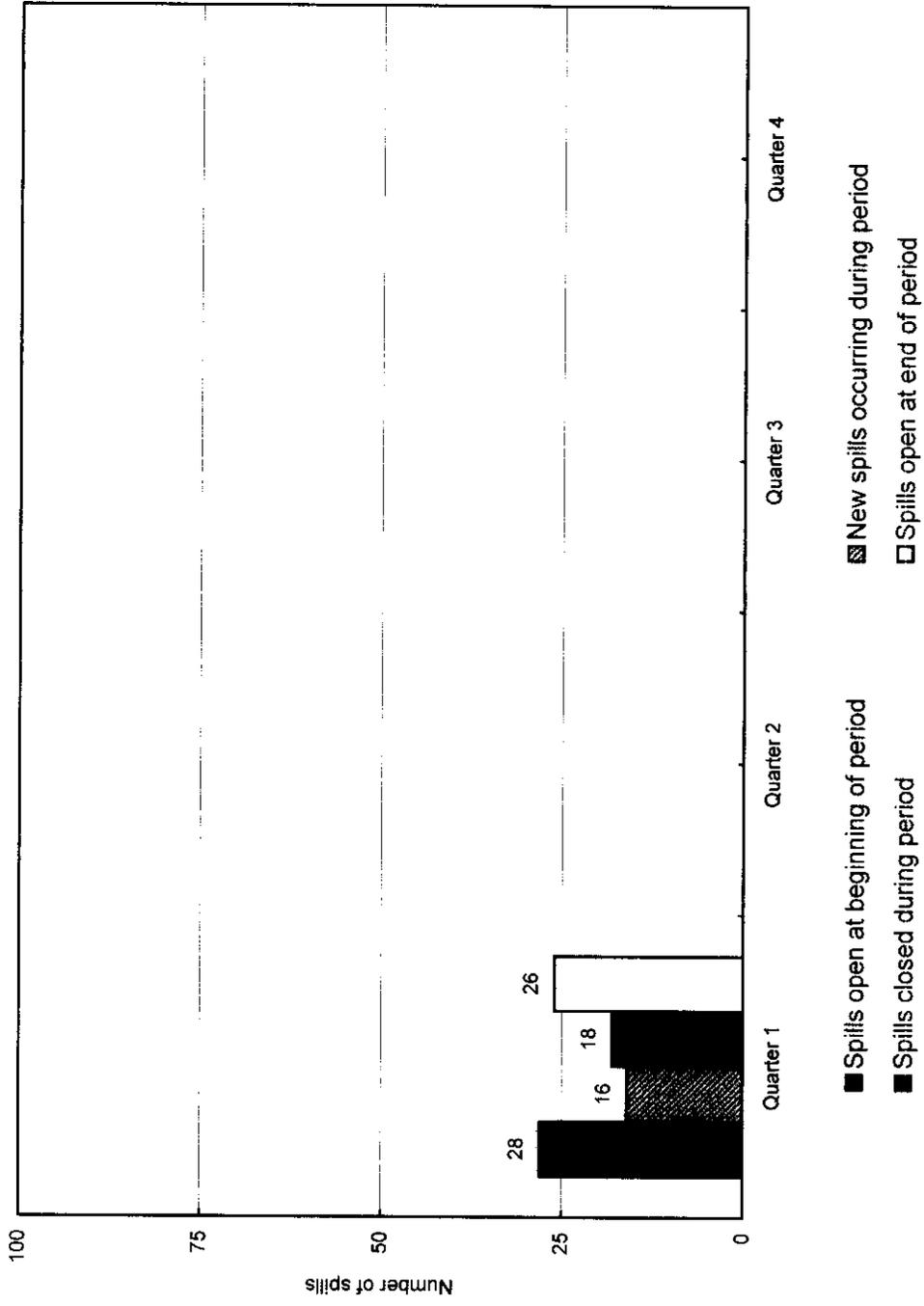
3. COMPLIANCE MEASURES

3.1 PROCESS LUBRICATION OIL REMOVAL

The UE TSCA FFCA required PORTS to inventory and characterize each process lube oil system for TSCA regulation. Eight process lubrication oil systems at PORTS were found to contain oil with PCBs at concentrations between 50 and 500 ppm. These systems were retrofilled and reclassified as nonregulated systems. Retrofilling was completed by March 26, 1993. Reclassification of the systems was completed on August 17, 1993. All TSCA-regulated oil generated from this process was disposed of at the Oak Ridge K-25 Site TSCA incinerator. Disposal was completed on March 7, 1994. Based upon this information, these UE TSCA FFCA commitments were closed for the PORTS facility. (Refer to *The Polychlorinated Biphenyl Annual Compliance Agreement Report for The Portsmouth Gaseous Diffusion Plant*, POEF-MMES-12, May 1995; and POEF-EW-12, May 1994, for additional information.)

3.2 SPILL CLEANUP

Sixteen new PCB gasket-related spills to process building floors were identified during the reporting period. All of these PCB spills were managed as high-concentration PCB spills due to contact with PCB-impregnated ventilation duct gaskets. A total of 18 gasket-related PCB spill sites were closed during this reporting period. PCB spill cleanup progress is illustrated in Fig. 1.



Note: Summary includes process building gasket/troughing system spills and associated cleanup measures only.
 Updated as of 4/3/03

Fig. 1. 2003 Summary of PCB Gasket Spills January 1, 2003 through March 31, 2003.

Clearly visible signs are posted at process building entrances advising personnel to avoid spill areas to minimize spread of contamination and potential human exposure. Record copies of cleanup documentation are kept at PORTS and are available for inspection.

3.3 ELECTRICAL CABLES AND ASSOCIATED EQUIPMENT

No PCB-contaminated electrical cables or associated equipment were removed or cleaned during this quarter. PCB-contaminated electrical cables and associated equipment must be removed from the facilities upon decommissioning unless they require maintenance, servicing, or replacement during plant operations or gasket removal. If maintained or serviced, the cables, cable trays, and associated equipment shall be removed or cleaned to standards set forth in the UE TSCA FFCA. Cleanup measures and/or removal of electrical cables are to be reported quarterly and are to be included in the Annual Compliance Agreement Report to EPA.

3.4 DISPOSAL

No TSCA PCB shipments for disposal were made during this reporting period and no Certificates of Disposal (CODs) were received during this reporting period.

At the PORTS facility, TSCA-regulated PCB waste generated on site is assumed to contain DOE-added radioactivity. DOE standards have been established for surface and volumetric radiological contamination. Material that cannot meet the standard of no "DOE added" radioactivity may only be disposed of at a DOE-owned or Nuclear Regulatory Commission-licensed facility. As a result, this has limited the number of TSCA-permitted treatment and disposal facilities eligible to accept PORTS-generated PCB waste.

Pending radiological characterization for disposal, TSCA-regulated PCB wastes are stored in accordance with the UE TSCA FFCA, Attachment I, Section 2 (D), "Storage." In compliance with the UE TSCA FFCA, when a radioactive PCB waste is determined to be nonradioactive, the date it is considered placed into storage for disposal is the date that it is certified by DOE to be nonradioactive.

4. REFERENCES

MMES (Martin Marietta Energy System, Inc.) Refer to *The Polychlorinated Biphenyl Annual Compliance Agreement Report for the Portsmouth Gaseous Diffusion Plant, Appendix B*, POEF-MMES-12, May 1995 for additional information.

MMES (Martin Marietta Energy System, Inc.) Refer to *The Polychlorinated Biphenyl Annual Compliance Agreement Report for The Portsmouth Gaseous Diffusion Plant*, POEF-MMES-12, May 1995; and POEF-EW-12, May 1994, for additional information.

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PORTSMOUTH DMC MATERIAL TRANSFER FORM

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PART I

(TO BE COMPLETED BY EMPLOYEE SUBMITTING TRANSFER FORM)

DOCUMENT TITLE: DOE Contract No. DE-AC05-980R22700 - Transmittal of Uranium Enrichment (UE) Toxic Substances Control Act (TSCA) Federal Facilities Compliance Agreement (FFCA) 1st Quarterly Progress Report for the Portsmouth Gaseous Diffusion Plant	DOCUMENT DATE: 04/17/03
DOCUMENT NO.: LTR-WD-CM-03-031	PAGE COUNT: 11
AUTHOR / ORGANIZATION: Gilbert D. Drexel	FACILITY / OPERABLE UNIT: Manager of Projects

SHOULD DOCUMENT BE CONSIDERED FOR TRANSMITTAL TO THE ENVIRONMENTAL INFORMATION CENTER (IEC)? YES NO
IF YES, HAS THE DOCUMENT RECEIVED THE FOLLOWING REVIEWS? ADC / TIO BJC LEGAL

Please submit copy of clearance form and evidence of legal review with document.

KEY WORDS / IDENTIFIERS / BUZZWORDS (MANDATORY). NOTE: PLEASE SELECT WORDS FROM BODY OF DOCUMENT.

1. LTR-WD-CM-03-031
2. 04/17/03
3. Gilbert D. Drexel
4. (FFCA)
5. (TSCA)
6. 1st Quarterly Progress Report

QA RECORD: YES NO

Note: Quality Assurance (QA) Record is a completed document that furnished evidence of the quality of items and/or activities affecting quality.

SUBMITTED BY: Malvery D. Eisnaugle DATE: 04/30/03 PHONE: 2912

PART II

(TO BE COMPLETED BY DMC STAFF)

NOTES:

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STATUS (ARF, PD, GRC):	LOCATION:	VITAL RECORD: YES <input type="checkbox"/> NO <input type="checkbox"/>
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FG: PJ / RS: ITEM NO.:

DMC STAFF INITIAL AND DATE:

INDEXED BY: DATE: ATTRIBUTED BY: DATE:

SCAN: YES NO