

# **Department of Energy**

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MAR 2 4 2011

PPPO-03-1158259-11

Ms. Maria Galanti Ohio Environmental Protection Agency Southeast District Office 2195 Front Street Logan, Ohio 43138

Dear Ms. Galanti:

## CONSTRUCTION COMPLETION REPORT FOR REMOVAL OF THE X-533 SWITCHYARD COMPLEX AT THE PORTSMOUTH GASEOUS DIFFUSION PLANT, PIKETON, OHIO

The Department of Energy is submitting the enclosed Construction Completion Report for Removal of the X-533 Switchyard Complex at the Portsmouth Gaseous Diffusion Plant, Piketon, Ohio (DOE/PPPO/03-0174&D1) to the Ohio Environmental Protection Agency in accordance with the X-533 Switchyard Complex Removal Action Work Plan. This Construction Completion Report documents completion of the Comprehensive Environmental Response, Compensation, and Liability Act non-time-critical removal action for the X-533 Switchyard Complex at the Portsmouth Gaseous Diffusion Plant.

If you have any questions or require additional information, please contact Kristi Wiehle of my staff at (740) 897-5020.

Sincerely,

Joel B. Bradburne Portsmouth Site Lead Portsmouth/Paducah Project Office

Enclosure:

Construction Completion Report for Removal of the X-533 Switchyard Complex at the Portsmouth Gaseous Diffusion Plant, Piketon, Ohio

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DOE/PPPO/03-0174&D1

Construction Completion Report for Removal of the X-533 Switchyard Complex at the Portsmouth Gaseous Diffusion Plant Piketon, Ohio



This document is approved for public release per review by:

Henry H. Thomas	02/07/2011
PORTS Classification/Information Office	Date

DOE/PPPO/03-0174&D1

# Construction Completion Report for Removal of the X-533 Switchyard Complex at the Portsmouth Gaseous Diffusion Plant Piketon, Ohio

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Prepared for the U.S. Department of Energy Portsmouth/Paducah Project Office

Prepared by LATA/PARALLAX PORTSMOUTH, LLC managing the Environmental Remediation Activities at the Portsmouth Gaseous Diffusion Plant under contract DE-AC24-05OH20192 for the U.S. DEPARTMENT OF ENERGY

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# ACRONYMS

ACM	asbestos-containing material
ARARs	applicable and relevant or appropriate requirements
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CRO	Community Reuse Organization
DOE	U.S. Department of Energy
DOT	Department of Transportation
EE/CA	Engineering Evaluation/Cost Analysis
HVAC	heating, ventilation and air conditioning
LLW	low-level radioactive waste
Ohio EPA	Ohio Environmental Protection Agency
PCBs	polychlorinated biphenyls
PORTS	Portsmouth Gaseous Diffusion Plant
PPE	personal protective equipment
RAWP	Removal Action Work Plan
RCRA	Resource Conservation and Recovery Act
TSCA	Toxic Substances Control Act

## **EXECUTIVE SUMMARY**

This Construction Completion Report documents completion of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) non-time-critical removal action for the X-533 Switchyard Complex (hereafter referenced as the X-533), consisting of the X-533A, X-533B, X-533C, X-533D, X-533E, X-533F, X-533J, and an outbound transformer slab as further described below, at the Portsmouth Gaseous Diffusion Plant (PORTS). The X-533 was located at coordinates N12000, E9000 in the northern portion of PORTS.

The X-533 was a high voltage switchyard that furnished electric power to the cascade in the X-333 Process Building. The X-533 was comprised of the following:

- A 714,000 sq-ft equipment switchyard area (X-533A)
- A two-story control room with two switch gear houses (X-533B)
- A test and repair facility/maintenance shop, which was a general maintenance crew area for housing the yard maintenance equipment and performing minor maintenance activities (X-533C)
- An oil house, which was an oil pumping/reclaiming station (X-533D)
- Two belowground head houses for housing the fire water valves used to transition the fire water system from a wet to dry system for transformer fire suppression (X-533E and X-533F)
- A metal, pole-barn-type structure for housing a sulfur hexafluoride reclamation cart and spare sulfur hexafluoride cylinders (X-533J)
- An outbound transformer slab

Contaminants of concern identified at the X-533 as part of this non-time-critical removal action included asbestos-containing material (ACM), lead, polychlorinated biphenyls (PCBs), and radiological constituents. The forms of ACM in the X-533 included steam pipe and tank insulation; wallboard and floor tile; roof shingle flashing on exhaust roof vents; electrical sheathing; window caulking; gaskets; exterior transite siding on the X-533B Switch Gear Houses; and transite in the interior of the X-533B Control Room. Screws used to secure the transite siding to the exterior of the switch gear houses were covered with lead bolt covers, and lead flashing was present around the X-533B Control Room and Switch Gear House windows and door frames. The radiologically-contaminated items identified at the X-533 included the ventilation duct system, miscellaneous equipment, several concrete footers associated with electrical towers, and slabs in the X-533B Switch Gear House fan rooms were identified as PCB-contaminated. Transformer bushings were also found to be PCB-contaminated.

The X-533 CERCLA non-time-critical removal action activities included removal of ACM, equipment, buildings, towers, and concrete foundations and removal or covering of concrete slabs. The activities also included establishment of an equipment staging area, equipment decontamination, waste disposition, site restoration, and demobilization. These activities have been completed in accordance with the X-533 Switchyard Complex Removal Action Work Plan at the Portsmouth Gaseous Diffusion Plant,

Piketon, Ohio (DOE 2010b) and the applicable and relevant or appropriate requirements outlined in the Action Memorandum for the Removal of the X-533 Switchyard Complex at the Portsmouth Gaseous Diffusion Plant, Piketon, Ohio (DOE 2010a).

## **I. INTRODUCTION**

The U.S. Department of Energy (DOE) has completed the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) non-time-critical removal action for the X-533 Switchyard Complex (hereafter referenced as the X-533), consisting of the X-533A, X-533B, X-533C, X-533D, X-533E, X-533F, X-533J, and an outbound transformer slab as further described below, at the Portsmouth Gaseous Diffusion Plant (PORTS). This Construction Completion Report documents the completion of the CERCLA non-time-critical removal action.

The X-533 was located at coordinates N12000, E9000 in the northern portion of PORTS. Figure 1 shows the location of the X-533 at the plant site; Figures 2 and 3 provide a detailed site layout and photograph, respectively, of the X-533 before demolition was initiated.

#### 1.1 CONSTRUCTION COMPLETION REPORT PURPOSE AND SCOPE

This Construction Completion Report documents completion of the X-533 CERCLA non-timecritical removal action, as described in the X-533 Switchyard Complex Removal Action Work Plan at the Portsmouth Gaseous Diffusion Plant, Piketon, Ohio (DOE 2010b) (X-533 RAWP). Removal action alternatives for the X-533 were evaluated in the Engineering Evaluation/Cost Analysis for the X-533 Switchyard Complex at the Portsmouth Gaseous Diffusion Plant, Piketon, Ohio (DOE 2009) (X-533 EE/CA), and the decision to remove the X-533 was documented in the Action Memorandum for the Removal of the X-533 Switchyard Complex at the Portsmouth Gaseous Diffusion Plant, Piketon, Ohio (X-533 Action Memorandum) (DOE 2010a).

#### **1.2 AREA DESCRIPTION**

The X-533 was located in the northern portion of PORTS in the area identified as Quadrant IV in the Quadrant IV RFI Final Report (DOE 1996).

#### **1.3 SITE DESCRIPTION AND HISTORY**

The X-533 was a high voltage switchyard that furnished electric power to the cascade in the X-333 Process Building. It was completed in 1955 and was upgraded during the plant improvement program conducted in the 1970s. The X-533 was comprised of the following:

- A 714,000 sq-ft equipment switchyard area (X-533A)
- A two-story control room with two switch gear houses (X-533B)
- A test and repair facility/maintenance shop, which was a general maintenance crew area for housing the yard maintenance equipment and performing minor maintenance activities (X-533C)
- An oil house, which was an oil pumping/reclaiming station (X-533D)





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Figure 3. Photograph of X-533 before demolition, looking northwest

- Two belowground head houses for housing the fire water valves used to transition the fire water system from a wet to dry system for transformer fire suppression (X-533E and X-533F)
- A metal, pole-barn-type structure for housing a sulfur hexafluoride reclamation cart and spare sulfur hexafluoride cylinders (X-533J)
- An outbound transformer slab.

Switchyard equipment included power transformers, grounding transformers, gas circuit breakers, lightning arrestors, disconnect switches, capacitance transformers, coupling capacitors, line tuning units, and wave traps. Transmission towers, which stood on concrete foundations, supported electrical transmission lines and were located throughout the switchyard. Cable vaults and cable trenches, which connected the vaults, also were located throughout the switchyard.

The X-533B Switch Gear Houses received power from the switchyard transformers and fed that power to the underground distribution system. The X-533B Switch Gear Houses supplied power to the X-333 Process Building and the X-633 Pump House via 13.8 kV feeder cables housed in concrete ducts.

The X-533B Control Room and Switch Gear Houses were situated parallel to the length of the switchyard and were located on the southern boundary line of the X-533. The X-533B Control Room was located between the X-533B Switch Gear Houses and was connected to each switch gear house operating deck by a walkway from the X-533B Control Room operating floor level. Underground cable tunnels, which remain in place, also connected the X-533B Switch Gear Houses with the X-533B Control Room.

The X-533B Switch Gear Houses were one-story, rectangular structures, 67 ft wide by 536 ft long. The X-533B Switch Gear House foundations, which remain in place, are reinforced concrete, and the floor slab is reinforced monolithic concrete placed on compacted fill. The superstructures were structural steel frames with columns that supported steel roof-beam members. The roofs were reinforced concrete slabs covered with membrane waterproofing and cement topping. The roofs were deck areas which contained the 13.8 kV switch gear and synchronous condensers. Parapet walls projected above the roof deck slabs, and for personnel safety, there was pipe railing atop the parapet walls. The exterior walls were covered with corrugated asbestos siding (transite) bolted to horizontal steel girt. Aluminum flashing covered the parapet wall and the top of the siding. The ground level housed auxiliary equipment such as synchronous condenser controls and pumps, switch gear air compressors, low-voltage switch gear, heating and ventilating equipment, distribution transformers and panels, and lighting transformers and panels.

The X-533B Control Room was a two-story rectangular structure, 67 ft wide and 120 ft long. The building foundation, which remains in place, is reinforced concrete, and the ground floor slab is monolithic concrete placed on compacted fill. The second floor or operation floor was also reinforced concrete. The construction of the X-533B Control Room superstructure was similar to that of the X-533B Switch Gear Houses; differences included the roof, which had a gravel topping, and the exterior walls, which were covered with aluminum siding bolted to horizontal steel girt.

The operating floor of the X-533B Control Room contained two groups of panels that controlled 345 kV and 13.8 kV equipment, a recording and metering control panel, and two groups of 13.8 kV switch gear controls. An operator's console, which was part of the communications system, was located in the approximate center of the operating floor, and a control panel for lighting and auxiliary power was located behind the recording and meter panel. The operating floor also contained kitchen, restroom, and shower facilities.

The X-533B Control Room ground floor housed carrier electrical current equipment; control batteries; supervisory cabinets; alarm relay cabinets; heating, ventilating and air conditioning (HVAC) equipment; and synchronous condenser amplifying and field rheostat controls.

On November 1, 2008, while the X-533 was leased to the United States Enrichment Corporation, it was removed from service. The X-533 was returned to DOE on July 29, 2009.

#### **1.4 CONTAMINANTS OF CONCERN**

The X-533 was characterized to identify contaminants associated with the structures. The characterization data are summarized in Section 2.2 of the X-533 EE/CA. Based on the characterization data, asbestos-containing material (ACM), lead-based paint, polychlorinated biphenyls (PCBs), and radiological constituents were contaminants of potential concern.

The forms of ACM in the X-533 included steam pipe and tank insulation; wallboard and floor tile; roof shingle flashing on exhaust roof vents; electrical sheathing; window caulking; gaskets; exterior transite siding on the X-533B Switch Gear Houses; and transite in the interior of the X-533B Control Room.

Lead-based paint was present in the X-533 on piping, tower bases, cable chases, and in the X-533B Control Room and Switch Gear Houses. Concentrations ranged from 660 mg/kg to 260,000 mg/kg with a percent by weight range of 0.066 percent to 26 percent.

Some of the control wiring throughout the switchyard contained PCBs, and ventilation system duct gaskets in the X-533B were impregnated with PCBs at concentrations which exceeded 500 ppm. Fluorescent light ballasts in the X-533 also contained PCBs. This Toxic Substances Control Act (TSCA) waste was removed as a pre-demolition activity (see Section 1.5 below) prior to the start of the X-533 CERCLA non-time-critical removal action.

As discussed in the X-533 EE/CA, radiological survey results indicated there was radiological contamination at the X-533. Elevated readings were isolated to specific pieces of equipment, several concrete footers associated with electrical towers, and the ventilation duct system. The contaminated items made up a small fraction of the overall X-533.

#### **1.5 PRE-DEMOLITION ACTIVITIES**

Pre-demolition activities were initiated prior to the start of the X-533 CERCLA non-time-critical removal action. The pre-demolition activities, which were conducted as maintenance actions under DOE's Atomic Energy Act authority, were executed in accordance with all statutory and regulatory requirements including, but not limited to, the National Environmental Policy Act of 1969. Pre-demolition activities that were completed include mobilization of field trailers; disconnecting and isolating utilities from the PORTS utility systems; draining oils; and removing Resource Conservation and Recovery Act (RCRA) waste, TSCA waste, and universal waste.

#### 1.6 NON-TIME-CRITICAL REMOVAL ACTION PURPOSE AND OBJECTIVES

The X-533 CERCLA non-time-critical removal action activities included removal of ACM, equipment, buildings, towers, and concrete foundations and removal or covering of concrete slabs. The activities also included equipment decontamination, waste disposition, site restoration, and demobilization. This CERCLA non-time-critical removal action did not include soils associated with the X-533.

As outlined in the X-533 EE/CA and Action Memorandum, the following objectives were identified for this CERCLA non-time-critical removal action:

- Reduce the potential exposure to on-site personnel from hazardous substances due to the structural deterioration of the X-533; and
- Control removal of the X-533 to minimize or eliminate the potential health and environmental impacts created by the potential uncontrolled release of contaminated dust, equipment, and building materials from the structures as they deteriorate.

# 2. SUMMARY OF TASKS COMPLETED

The X-533 CERCLA non-time-critical removal action activities have been completed in accordance with the applicable and relevant or appropriate requirements (ARARs) outlined in the X-533 Action Memorandum. Associated activities outlined in the X-533 ARARs were completed to meet the substantive requirements of the National Historic Preservation Act. Photographs of the X-533 before, during, and after demolition are provided in Appendix A.

Throughout the demolition process, engineering, administrative, and personal protective equipment (PPE) controls were implemented to adequately protect the work force, environment, and surrounding infrastructure and personnel. DOE took precautions, such as using PPE and conducting air sampling, to ensure worker safety. Water was sprayed to minimize fugitive dust emissions. Silt fencing was installed to control sediment runoff, and sediment traps were installed at potentially-impacted catch basins. An X-533 Stormwater Pollution Prevention Plan was developed and followed.

#### 2.1 EQUIPMENT AREA

An equipment area was established north of 27th Street (see Figure 4) to stage equipment identified for re-use or recycling. The equipment staging area surface consists of a geotextile liner covered with a four-inch layer of coarse stone and a two-inch layer of top choke stone.

#### 2.2 REMOVAL OF ACM

In accordance with the X-533 RAWP, X-533 ACM abatement activities were performed by a Stateof-Ohio-licensed asbestos abatement contractor. Asbestos removal work was performed in accordance with ARARs.



ACM, including wallboard and floor tile, roof shingle flashing on exhaust roof vents, electrical sheathing, window caulking, gaskets, and steam pipe and tank insulation, was removed from the interior and exterior of the X-533 buildings. The exterior transite siding on the X-533B Switch Gear Houses and the transite in the interior of the X-533B Control Room were also removed.

Aerial bucket lifts were used to access the transite panels on the sides of the X-533B Switch Gear Houses. The transite panels, for the most part, were removed as full sheets. When a cut was required, methods were employed to control the release of fibers. The panels were lowered to the ground and loaded into DOT-approved containers that were double-lined with poly sheeting.

Screws used to secure the transite siding to the exterior of the switch gear houses were covered with lead bolt covers, and lead flashing was present around the X-533B Control Room and Switch Gear House windows and door frames. The lead bolt covers and lead flashing were removed, containerized, and staged in the equipment area identified in Figure 4 for future transfer to the recognized Community Reuse Organization (CRO).

#### 2.3 REMOVAL OF RADIOLOGICALLY-CONTAMINATED ITEMS

Radiological release criteria, equivalent to or more stringent than DOE Order 5400.5 criteria and consistent with the concepts and terminology within the Multi-Agency Radiation Survey and Site Investigation Manual, were employed. The ventilation duct system and other items that exhibited alpha and/or beta/gamma levels above the release criteria were removed from the structures. The radiologically-contaminated items included those identified in the X-533 EE/CA (i.e., the ventilation duct system, miscellaneous equipment, and several concrete tower footers) as well as steel plates attached to four X-533 transformer concrete pedestals. Fixed radiological contamination was identified on the steel plates during radiological surveys conducted during the CERCLA non-time-critical removal action. The items were size-reduced (as appropriate), loaded into Department of Transportation (DOT)-approved containers, and removed from the X-533 site for disposal as low-level radioactive waste (LLW).

#### 2.4 REMOVAL OF EQUIPMENT

Equipment and associated components at the X-533 (such as above-grade storage tanks; transformers; roof-mounted synchronous condensers; electrical, mechanical, HVAC, and instrumentation and control equipment; piping; and valves) were removed for disposal, re-use, and recycling.

Items identified for disposal were disassembled, as appropriate, and loaded into DOT-approved containers for shipment. Pieces of equipment in the X-533B Switch Gear House fan rooms were identified as PCB-contaminated during the removal action. The contaminated equipment was segregated and disposed as TSCA waste.

Oil in the above-grade storage tanks was sampled and found to contain PCBs at concentrations less than 20 ppm. The oil was drained as a pre-demolition activity (see Section 1.5 of this report). During the removal action, the above-grade storage tanks were disposed as sanitary/industrial waste.

Equipment and material identified for re-use or recycling (such as transformers, electrical cabinets and components, and structural steel) were managed in one of the following ways:

- Transfer to the United States Enrichment Corporation
- · Transfer to the recognized CRO
- Staging in the equipment area identified in Figure 4 for future transfer to the recognized CRO

The transformers have been staged in the equipment area identified in Figure 4, and the transformer bushings have been removed and disposed as TSCA waste. Transformer disassembly and removal is being performed by a CRO contractor.

The roof-mounted synchronous condensers and gas circuit breakers (sulfur hexafluoride gas removed as pre-demolition activity) were considered for re-use or recycling and are currently being staged at the equipment area identified in Figure 4 for future disposition.

#### 2.5 REMOVAL OF UTILITIES AND PIPING

Aboveground utilities and piping were removed down to two ft below grade, and the sanitary sewer and storm sewer lines were plugged. The termination locations are shown in Figures 5 through 8. A grounding grid (not shown), located throughout the X-533 Switchyard at a depth greater than two ft below grade, remains in place.

#### 2.6 REMOVAL OF BUILDINGS AND TOWERS

The X-533 towers, components, and buildings were removed in accordance with the X-533 RAWP. As the X-533B West Switch Gear House, East Switch Gear House, and Control Room were demolished, the structural debris was segregated for either reuse/recycling or disposal. Material, including structural steel, to be re-used or recycled was staged in the equipment area shown in Figure 4. The recognized CRO has contracted with a recycler to recycle 1.7 million lbs of mixed scrap metal. Agreements for managing the remainder of the recyclable/reusable materials are pending.

In the X-533B Switch Gear Houses, concrete columns rose from the building footers up to the roofs and served as pedestals for the 10 roof-mounted synchronous condensers. Stains were identified on the bottom three ft of the columns. After the building frame was demolished, the columns were crushed, and the stained concrete was disposed as sanitary/industrial waste. The remainder of the column concrete was transferred to the X-633-2C Cooling Tower basin to be stored for future use as clean hard fill. Stains were also identified on small-equipment concrete pedestals in the X-533B Switch Gear Houses. The pedestal concrete was disposed as sanitary/industrial waste. In addition, stains were found on the lower portions of concrete block walls in the X-533B Switch Gear House fan rooms. The stained concrete was segregated and disposed as TSCA waste.

The X-533C Maintenance Shop; the X-533D Oil House; and the metal, pole-barn-type structure (X-533J) were demolished, and the debris was disposed as sanitary/industrial waste. The two below ground head houses (X-533E and X-533F) were removed down to two ft below grade, and the demolition debris was disposed as sanitary/industrial waste. The remaining below ground portions of X-533E and X-533F were covered with flowable fill to near grade followed by crusher run limestone, compacted to grade.









#### 2.7 REMOVAL/COVERING OF CONCRETE SLABS AND FOUNDATIONS

The concrete slabs of the X-533 structures (excluding the X-533B Control Room and Switch Gear Houses) and the utility tower foundations were removed down to a minimum of two ft below grade using excavators. Cable trenches and cable vaults (excluding those associated with the X-533B Control Room and Switch Gear Houses) were also removed to a minimum of two ft below grade. The concrete was disposed as sanitary/industrial waste.

The transformer storage pad and the concrete slabs of the X-533B Control Room and Switch Gear Houses were left in place. Vaults and openings to underground cable tunnels were covered with steel plates, which were secured with expansion anchors. In areas where the concrete around an opening was partially damaged, wood blocking was placed around the perimeter of the opening, and the steel plate was secured to the wood blocking using expansion anchors.

A concrete manway is located beneath the south end of the X-533B Control Room slab. This manway led to the entrance of a tunnel that connected the X-533B Control Room to the X-333 Process Building. The entrance to the tunnel from the manway was sealed by the United States Enrichment Corporation prior to the building being returned to DOE. After the X-533B Control Room was removed, the manway was covered with a steel plate, which was secured with expansion anchors. No work was performed in the tunnel.

Portions of the X-533B Switch Gear House slabs associated with the stained concrete pedestals (see Section 2.6) were delineated, removed, and disposed as sanitary/industrial waste. Portions of the X-533B East Switch Gear House fan room concrete slab were found to be contaminated with PCBs at concentrations less than 50 ppm but greater than 2 ppm. Following demolition, these areas were covered with steel plates, which were secured with expansion anchors. During the removal action, portions of the X-533B West Switch Gear House fan room concrete slab were found to be contaminated with PCBs at concentrations greater than 50 ppm. The areas were covered with poly sheeting and plywood prior to building demolition. Following demolition, the plywood-covered areas were covered with steel plates, which were secured with expansion anchors.

#### 2.8 EQUIPMENT DECONTAMINATION

Demolition equipment attachments were decontaminated, as needed, using dry decontamination techniques. Sampling and radiological surveys were conducted to verify that no contaminants remained.

#### 2.9 SITE RESTORATION AND DEMOBILIZATION

Clean ballast was placed in graveled areas of the switchyard to address voids created by the demolition activities, and select graveled areas were graded to smooth out large ruts or depressions created by heavy equipment operations. Crews and equipment were demobilized from the X-533 site.

#### 2.10 POST-REMOVAL STATE

At the completion of this CERCLA non-time-critical removal action, the X-533 equipment and associated components have been removed from the X-533 site for re-use, recycling, and disposal. Equipment and material identified for re-use or recycling have been managed in one of the following ways:

- Transfer to the United States Enrichment Corporation
  - · Transfer to the recognized CRO
  - Staging in the equipment area identified in Figure 4 for future transfer to the recognized CRO

Aboveground utilities and piping have been removed down to two ft below grade, and the sanitary sewer and storm sewer lines have been plugged. The termination locations and the underground piping and utilities remaining at the X-533 at the end of the CERCLA non-time-critical removal action are shown in Figures 5 through 8. Note that exact locations of underground piping and utilities were not verified via excavation or ground penetration radar; therefore, as-built conditions may vary from the figures. A grounding grid (not shown), located throughout the X-533 Switchyard at a depth greater than two ft below grade, remains in place.

The X-533 towers and components; the X-533B West Switch Gear House, East Switch Gear House, and Control Room; the X-533C Maintenance Shop; the X-533D Oil House; and the metal, pole-barn-type structure (X-533J) have been removed. The two below ground head houses (X-533E and X-533F) have been removed down to two ft below grade. The remaining below ground portions of X-533E and X-533F have been filled with flowable fill to near grade followed by crusher run limestone, compacted to grade.

The concrete slabs of the X-533 structures (excluding the X-533B Control Room and Switch Gear Houses) and the utility tower foundations have been removed down to a minimum of two ft below grade. Cable trenches and cable vaults (excluding those associated with the X-533B Control Room and Switch Gear Houses) have also been removed to a minimum of two ft below grade.

The transformer storage pad and the concrete slabs of the X-533B Control Room and Switch Gear Houses remain in place and are shown in Figures 5 through 8. Vaults, openings to underground cable tunnels, and the concrete manway located beneath the south end of the X-533B Control Room slab have been covered with steel plates and secured with expansion anchors. Portions of the X-533B Switch Gear House concrete slabs that are contaminated with PCBs at concentrations greater than 50 ppm or concentrations less than 50 ppm but greater than 2 ppm have also been covered with steel plates and secured with expansion anchors.

Clean ballast has been placed in graveled areas of the switchyard to address voids created by the demolition activities, and select graveled areas have been graded to smooth out large ruts or depressions created by heavy equipment operations. Crews and equipment have been demobilized from the X-533 site.

# 3. WASTE MANAGEMENT AND TRANSPORTATION ACTIVITIES

This section describes the management and transport of wastes generated during the X-533 CERCLA non-time-critical removal action. Wastes were managed and disposed in accordance with the X-533 RAWP and the X-533 ARARs. Facility characterization was conducted to assure waste streams were compliant with applicable waste acceptance criteria.

Waste streams were segregated for disposal. For example, asbestos was removed from the structures prior to demolition (see Section 2.2), and the ventilation duct system and other items that exhibited alpha and/or beta/gamma levels above release criteria were removed from the structures and segregated for disposal as LLW (see Section 2.3).

The quantities and types of solid waste generated during this CERCLA non-time-critical removal action and waste disposal locations are provided in Table 1. A detailed listing of shipped CERCLA non-time-critical removal action solid waste is provided as Appendix B. Manifests will be provided upon request. PPE used during the removal action (e.g., gloves, protective suits) and wastes generated during dry decontamination activities were disposed with the waste streams identified in Table 1.

Waste Material	Туре	Total Volume (cu ft)	Total Weight (lbs)	Disposal Location
ACM	ACM	32,400	454,340	Pike County Landfill
Demolition debris (e.g., concrete, metal, ceramic, wood, equipment, piping)	Sanitary/ Industrial	669,781	20,644,866	Pike County Landfill
Demolition debris (e.g., ventilation duct system, concrete tower footers, steel plates)	LLW	18,410	374,714	EnergySolutions Clive, Utah facility
Demolition debris (e.g., fan room equipment, concrete block walls)	TSCA	1,276	41,382	The Environmental Quality Company, Belleville, Michigan
Transformer bushings	TSCA	2,355	291,394	Environmental Protection Services
Aerosol cans	RCRA	.54	269	The Environmental Quality Company, Belleville, Michigan

Table 1. Summary of CERCLA non-time-critical removal action solid waste

## 4. DEVIATIONS FROM THE X-533 RAWP

#### **4.1 PROJECT SCHEDULE**

The X-533 RAWP provided a schedule for the completion of the X-533 CERCLA non-time-critical removal action. Due to project delays, the planned completion dates for the CERCLA non-time-critical removal action activities were modified. A field change was submitted to the Ohio Environmental Protection Agency (Ohio EPA) on September 29, 2010, and Ohio EPA's concurrence with the field change was received on October 7, 2010. A second project schedule field change was submitted to Ohio EPA on December 15, 2010, and Ohio EPA's concurrence was received through electronic mail on December 16, 2010. A clarification of the concurrence was received through electronic mail on December 21, 2010. (See Appendix C.) The project completion date was extended from September 30, 2010 to January 31, 2011.

#### 4.2 EQUIPMENT STAGING AREA

The X-533 RAWP stated that a four-acre equipment area would be established at the X-533. As described in Section 2.1 of this Construction Completion Report, the equipment area was established at the X-533 to stage equipment identified for re-use or recycling. However, additional space was required

to temporarily store a larger inventory of material generated from the project, to complete dismantlement and size reduction of equipment and metals prior to transport from the site, and to manage and segregate recyclable materials. Therefore, the equipment staging area was expanded from approximately four acres to approximately eight acres. A field change was submitted to Ohio EPA on October 15, 2010, and Ohio EPA's conditional concurrence with the field change was received on November 8, 2010. (See Appendix C.)

#### 4.3 X-533B CONCRETE SLABS

The X-533 RAWP stated that the concrete slabs of the X-533B Control Room and Switch Gear Houses would be removed. However, because the X-533B concrete slabs may be of future use to DOE, they were left in place. A field change was submitted to Ohio EPA on November 29, 2010, and Ohio EPA's concurrence with the field change was received on December 14, 2010. (See Appendix C.)

#### 4.4 TRAILER COMPLEX

The X-533 RAWP stated that the trailer complex at the X-533 would be removed at the end of the CERLCA non-time-critical removal action. However, it was determined that the trailers could be used to support other PORTS projects after the completion of the X-533 removal action. A field change was submitted to Ohio EPA through electronic mail on January 14, 2011, and Ohio EPA's concurrence was received through electronic mail on January 18, 2011. A formal copy of the field change was submitted to Ohio EPA on January 31, 2011. (See Appendix C.)

#### 4.5 TRANSFORMER STORAGE PAD

The X-533 RAWP stated that the transformer storage pad at the X-533 would be removed as part of the CERCLA non-time-critical removal action. However, it was determined that the transformer storage pad could be used to support the disassembly of transformers, and the pad was left in place. A field change was submitted to Ohio EPA on February 15, 2011, and Ohio EPA's concurrence was received through electronic mail on March 7, 2011. (See Appendix C.)

## 5. PROJECT SCHEDULE

Table 2 delineates major activities associated with the X-533 CERCLA non-time-critical removal action, As described in Section 2.2.3 of the X-533 RAWP, DOE obtained concurrence from Ohio EPA via electronic mail received February 2, 2010 to allow initiation of portions (e.g., ACM removal and yard tower demolition) of the X-533 RAWP before Ohio EPA concurrence with the entire X-533 RAWP was received. Also, DOE initiated demolition of the X-533C Maintenance Shop and the X-533D Oil House, and removal of the tower foundations, cable trenches, and cable vaults before receipt of Ohio EPA's April 13, 2010 concurrence with the X-533 RAWP to avoid significant schedule delays and to eliminate the need for on-site workforce reduction.

Activity	Start Date	Completion Date
Remove ACM	February 3, 2010	December 3, 2010
Demolish yard towers	February 3, 2010	September 30, 2010
Remove tower foundations, cable trenches, and cable vaults (excluding X-533B Control Room and Switch Gear House vaults)	March 18, 2010	January 6, 2011
Demolish X-533C Maintenance Shop	April 5, 2010	April 23, 2010
Demolish X-533D Oil House	April 5, 2010	July 5, 2010
Remove concrete slabs (excluding X-533B Control Room and Switch Gear House slabs and transformer storage pad)	June 1, 2010	July 29, 2010
Remove transformers	October 6, 2010	November 17, 2010
Demolish X-533B Control Room and Switch Gear Houses	October 16, 2010	December 29, 2010
Complete CERCLA non-time-critical removal action	January 31, 2011*	

#### Table 2. Schedule for removal of the X-533

\*The completion date is the date the final field activities, including demobilization of equipment, were complete.

## **6. REFERENCES**

- DOE 1996. Quadrant IV RFI Final Report for the Portsmouth Gaseous Diffusion Plant, Piketon, Ohio, DOE/OR/11-1180/V1&D3. December.
- DOE 2009. Engineering Evaluation/Cost Analysis for the X-533 Switchyard Complex at the Portsmouth Gaseous Diffusion Plant, Piketon, Ohio, DOE/PPPO/03-0099&D1. October.
- DOE 2010a. Action Memorandum for the Removal of the X-533 Switchyard Complex at the Portsmouth Gaseous Diffusion Plant, Piketon, Ohio, DOE/PPPO/03-0107&D1. January.

DOE 2010b. X-533 Switchyard Complex Removal Action Work Plan at the Portsmouth Gaseous Diffusion Plant, Piketon, Ohio, DOE/PPPO/03-0104&D2. March. APPENDIX A

PHOTOGRAPHS



Figure A-1. X-533 Switchyard Complex before demolition, looking southwest - March 2009



Figure A-2. X-533 Switchyard Complex before demolition, looking southwest - March 2009



Figure A-3. X-533B East Switch Gear House before demolition, looking northwest - March 2009



Figure A-4. X-533B West Switch Gear House before demolition, looking northeast - March 2009



Figure A-5. X-533B Control Room before demolition, looking north - December 2009



Figure A-6. Synchronous condenser mounted to X-533B Switch Gear House roof before demolition June 2009



Figure A-7. Electrical cabinets on top of X-533B Switch Gear House roof before demolition, looking west August 2009



Figure A-8. Gas circuit breakers before demolition - June 2009



Figure A-9. Power transformer in the X-533A Switchyard before demolition, looking northwest - June 2009



Figure A-10. Demolition of X-533A Switchyard towers - February 2010



Figure A-11. Demolition of X-533A Switchyard towers - February 2010



Figure A-12. ACM abatement of X-533B Switch Gear House, looking southeast - March 2010



Figure A-13. Removal of synchronous condensers from X-533B West Switch Gear House, looking southeast August 2010



Figure A-14. Removal of synchronous condenser from X-533B West Switch Gear House, looking east September 2010


Figure A-15. Demolition of X-533A Switchyard towers, looking east - September 2010



Figure A-16. Transport of power transformer to equipment staging area - November 2010



Figure A-17. Removal of X-533B East Switch Gear House electrical cabinets, looking north - November 2010



Figure A-18. Loading of debris from X-533B West Switch Gear House, looking east - December 2010



Figure A-19. Loading of debris from X-533B Control Room, looking north - December 2010



Figure A-20. Location of the former X-533 Switchyard Complex (foreground), looking south February 2011



Figure A-21. Location of the former X-533 Switchyard Complex (foreground), looking west February 2011



Figure A-22. Location of the former X-533 Switchyard Complex (foreground), looking southwest February 2011

### **APPENDIX B**

# SHIPMENT OF CERCLA WASTE

Sec. that		Volume	Weight		and the second second	
Waste Material	Туре	(cu ft)	(lbs)	Disposal Location	Date Shipped	Container Type
ACM	ACM	1,080	7,660	Pike County Landfill	2/23/2010	Roll off
ACM	ACM	1,080	7,300	Pike County Landfill	2/23/2010	Roll off
ACM	ACM	1,080	13,200	Pike County Landfill	2/25/2010	Roll off
ACM	ACM	2,430	44,780	Pike County Landfill	Multiple shipments ending 2/26/2010	Roll off
ACM	ACM	4.320	33.840	Pike County Landfill	Multiple shipments ending 3/4/2010	Roll off
ACM	ACM	9.720	207 020	Pike County Landfill	Multiple shipments	Roll off
richt		1,720	207,020	File County Eshanti	Multiple shipments	Dull of
ACM	ACM	1,620	16,800	Pike County Landrill	ending 4/14/2010	Roll off
ACM	ACM	810	5,360	Pike County Landfill	8/12/2010	Roll off
ACM	ACM	810	8,420	Pike County Landrill	8/12/2010	Roll off
ACM	ACM	810	7,780	Pike County Landfill	9/14/2010	Roll off
ACM	ACM	810	7,380	Pike County Landfill	9/14/2010	Roll off
ACM	ACM	810	9,780	Pike County Landfill	9/29/2010	Roll off
ACM	ACM	810	7,360	Pike County Landfill	9/29/2010	Roll off
ACM	ACM	810	10,400	Pike County Landfill	9/30/2010	Roll off
ACM	ACM	810	3,920	Pike County Landfill	10/19/2010	Roll off
ACM	ACM	810	7,940	Pike County Landfill	10/19/2010	Roll off
ACM	ACM	810	9,680	Pike County Landfill	12/14/2010	Roll off
ACM	ACM	1,080	13,660	Pike County Landfill	12/14/2010	Roll off
ACM	ACM	810	16,560	Pike County Landfill	12/14/2010	Roll off
ACM	ACM	1,080	15,500	Pike County Landfill	12/15/2010	Roll off
Demolition debris	Sanitary/Industrial	1,080	16,700	Pike County Landfill	1/26/2010	Roll off
Demolition debris	Sanitary/Industrial	1,080	38,340	Pike County Landfill	2/16/2010	Roll off
Demolition debris	Sanitary/Industrial	3,510	98,840	Pike County Landfill	Multiple shipments ending 3/8/2010	Roll off
Demolition debris	Sanitary/Industrial	2,160	15,480	Pike County Landfill	4/8/2010	Roll off
Demolition debris	Sanitary/Industrial	810	6,660	Pike County Landfill	4/12/2010	Roll off
Demolition debris	Sanitary/Industrial	810	11,280	Pike County Landfill	4/21/2010	Roll off
Demolition debris	Sanitary/Industrial	810	17,000	Pike County Landfill	4/21/2010	Roll off
Demolition debris	Sanitary/Industrial	810	33,220	Pike County Landfill	4/21/2010	Roll off
Demolition debris	Sanitary/Industrial	810	35,060	Pike County Landfill	4/26/2010	Roll off
Demolition debris	Sanitary/Industrial	810	30,520	Pike County Landfill	4/26/2010	Roll off
Demolition debris	Sanitary/Industrial	810	28,980	Pike County Landfill	4/26/2010 Multiple shipments	Roll off
Demolition debris	Sanitary/Industrial	2,430	73.240	Pike County Landfill	ending 4/26/2010	Roll off
Demolition debris	Sanitary/Industrial	810	11.380	Pike County Landfill	5/3/2010	Roll off
Demolition debris	Sanitary/Industrial	810	11.166	Pike County Landfill	5/3/2010	Roll off
Demolition debris	Sanitary/Industrial	810	39.040	Pike County Landfill	5/3/2010	Roll off
Demolition debris	Sanitary/Industrial	810	31,000	Pike County Landfill	5/3/2010	Roll off
Demolition debris	Sanitary/Industrial	810	37,160	Pike County Landfill	5/3/2010	Roll off
Demolition debris	Sanitary/Industrial	810	42 480	Pike County Landfill	5/3/2010	Roll off
Demolition debris	Sanitary/Industrial	810	45 640	Pike County Landfill	5/4/2010	Roll off
Demolition debris	Sanitary/Industrial	1.620	71 300	Pike County Landfill	5/5/2010	Roll off
Demolition debris	Sanitary/Industrial	810	31,640	Pike County Landfill	5/10/2010	Roll off
Demolition debris	Sanitary/Industrial	810	20 440	Pike County Landfill	5/10/2010	Roll off
Demolition debris	Sanitary/Industrial	810	33 120	Pike County Landfill	5/10/2010	Rolloff
Demolition dabris	Sanitary/Industrial	810	42 040	Pike County Landfill	5/10/2010	Roll off
Domolition debris	Souiton/Industrial	810	41 140	Dike County Landfill	5/10/2010	Roll off
Demolition debris	Sama y/Industrial	010	25 560	Dike County Landfill	5/10/2010	Pallaff
Demolition debris	Sanitary/Industrial	810	22.040	Dike County Landfill	5/10/2010	Roll off
Demonuon debris	Sanitary/Industrial	010	32,040	Pike County Landrill	5/10/2010	Dell off
Demontion debris	Sanitary/industrial	810	30,400	Pike County Landfill	5/10/2010	Roll off
Demolition debris	Sanitary/Industrial	1.620	(3,100	Pike County Landini	5/24/2010	Dall - D
Demonition debris	Santtary/Industrial	1.020	03,120	Pike County Landfill	5/24/2010	Koll off

Waste Material	Туре	Volume (cu ft)	Weight (lbs)	<b>Disposal Location</b>	Date Shipped	Container Type
		1.1.1.1.1.1.1			Multiple shipments	
Demolition debris	Sanitary/Industrial	6,480	237,400	Pike County Landfill	ending 6/10/2010	Roll off
Demolition debris	Sanitary/Industrial	810	60,680	Pike County Landfill	6/16/2010	Roll off
Demolition debris	Sanitary/Industrial	8,100	438,600	Pike County Landfill	Multiple shipments ending 6/18/2010	Roll off
a second second	1000000000	1	1.1.1.1.1		Multiple shipments	100000
Demolition debris	Sanitary/Industrial	64,800	2,182,620	Pike County Landfill	ending 6/24/2010	Roll off
Demolition debris	Sanitary/Industrial	7,290	171,180	Pike County Landfill	7/22/2010	Roll off
Demolition debris	Sanitary/Industrial	1,620	61,380	Pike County Landfill	7/26/2010	Roll off
Demolition debris	Sanitary/Industrial	8,910	282,620	Pike County Landfill	Multiple shipments ending 7/27/2010	Roll off
Demolition debris	Sanitary/Industrial	810	38,000	Pike County Landfill	8/12/2010	Roll off
Demolition debris	Sanitary/Industrial	810	5,860	Pike County Landfill	8/12/2010	Roll off
Demolition debris	Sanitary/Industrial	19,440	728,700	Pike County Landfill	Multiple shipments ending 8/12/2010	Roll off
Demolition debris	Sanitary/Industrial	1,620	42,880	Pike County Landfill	8/16/2010	Roll off
Demolition debris	Sanitary/Industrial	3,240	52,180	Pike County Landfill	Multiple shipments ending 9/29/2010	Roll off
Demolition debris	Sanitary/Industrial	3.240	69.240	Pike County Landfill	Multiple shipments ending 10/1/2010	Roll off
Demolition debris	Sanitary/Industrial	6.480	154 720	Pike County Landfill	Multiple shipments ending 10/2/2010	Boll off
Demolition debris	Sanitary/Industrial	17.820	736 540	Pike County Landfill	Multiple shipments ending 10/4/2010	Roll off
Demolition debris	Sanitary/Industrial	25,110	586.060	Pike County Landfill	Multiple shipments ending 10/14/2010	Roll off
Demolition debris	Sanitary/Industrial	48,600	1.517.440	Pike County Landfill	Multiple shipments ending 10/16/2010	Roll off
Demolition debris	Sanitary/Industrial	2,430	45,900	Pike County Landfill	10/19/2010	Roll off
Demolition debris	Sanitary/Industrial	25,920	668,680	Pike County Landfill	Multiple shipments ending 11/2/2010	Roll off
Demolition debris	Sanitary/Industrial	8,100	215,080	Pike County Landfill	11/5/2010	Roll off
Demolition debris	Sanitary/Industrial	810	6,180	Pike County LandJill	11/9/2010	Roll off
Demolition debris	Sanitary/Industrial	8,910	102,460	Pike County Landfill	Multiple shipments ending 11/10/2010	Roll off
Demolition debris	Sanitary/Industrial	25,110	788.380	Pike County Landfill	Multiple shipments ending 11/10/2010	Roll off
Demolition debris	Sanitary/Industrial	42,120	1,186,680	Pike County Landfill	Multiple shipments ending 11/18/2010	Roll off
Demolition debris	Sanitary/Industrial	44,550	1,278,180	Pike County Landfill	Multiple shipments ending 11/23/2010	Roll off
Demolition debris	Sanitary/Industrial	810	19,860	Pike County Landfill	11/29/2010	Roll off
Demolition debris	Sanitary/Industrial	14,790	719,100	Pike County Landfill	Multiple shipments ending 11/30/2010	Roll off
Demolition debris	Sanitary/Industrial	21.060	679 590	Pike County Landfill	Multiple shipments	Roll off
Demolition debris	Sanitary/Industrial	810	22 360	Pike County Landfill	12/6/2010	Roll off
Demolition debrie	Sanitary/Industrial	1.620	43 160	Pike County Landfill	Multiple shipments ending 12/8/2010	Boll off
Demolition debrie	Sanitary/Industrial	25 110	583.960	Pike County Landfill	Multiple shipments ending 12/9/2010	Roll off
Demolition debris	Sanitary/Industrial	42 091	1.087 560	Pike County Landfill	Multiple shipments ending 12/16/2010	Roll off
Demolition debris	Sanitary/Industrial	2,430	28,760	Pike County Landfill	Multiple shipments ending 12/21/2010	Roll off

		Volume	Weight			1
Waste Material	Туре	(cu ft)	(lbs)	Disposal Location	Date Shipped	<b>Container</b> Type
					Multiple shipments	
Demolition debris	Sanitary/Industrial	34,830	1,055,480	Pike County Landfill	ending 12/22/2010	Roll off
Access and any Company		13.05	and all	a Sumburn and a l	Multiple shipments	
Demolition debris	Sanitary/Industrial	46,980	1,399,760	Pike County Landfill	ending 12/30/2010	Roll off
Demolition debris	Sanitary/Industrial	810	4,900	Pike County Landfill	1/3/2011	Roll off
2	and a second	145524	Jacobs	100 m 100 m 100 m 100 m	Multiple shipments	2000 Ba
Demolition debris	Sanitary/Industrial	51,840	1,882,540	Pike County Landfill	ending 1/6/2011	Roll off
Demolition debris	Sanitary/Industrial	1,620	68,860	Pike County Landfill	1/10/2011	Roll off
Demolition debris	Sanitary/Industrial	9,720	343,860	Pike County Landfill	ending 1/11/2011	Roll off
Demolition debris	LLW	3,135	15,940	EnergySolutions	11/23/2010	Supergondola <sup>(a)</sup>
Demolition debris	LLW	3,575	12,800	EnergySolutions	11/23/2010	Supergondola <sup>(a)</sup>
Demolition debris	LLW	2,750	9,960	EnergySolutions	11/23/2010	Supergondola <sup>(a)</sup>
Demolition debris	LLW	100	754	Energy Solutions	3/1/2011 <sup>(b)</sup>	Supergondola <sup>(a)</sup>
Demolition debris	LLW	5.050	155.020	EnergySolutions	3/1/2011(b)	Supergondola
Demolition debris	LLW	3,800	180 240	EnergySolutions	3/1/2011(b)	Supergondola
Demonition debits	LIGW	2,000	100,240	The Environmental Quality	JULICUIT	Supergondora
Demolition debris	TSCA	550	21 580	Company	12/10/2010	End dumo
Demondon deoris	toca	250	21,000	The Environmental Quality	12/10/2010	End duttip
Demolition debris	TSCA	550	18 300	Company	12/10/2010	End dump
Dentonation debris	Toen	550	10,500	The Environmental Quality	12/10/2010	ind dump
Demolition debris	TSCA	176	1,502	Company	3/3/2011 <sup>(b)</sup>	End dump <sup>(a)</sup>
Transformer bushings	TSCA	30	4,140	EPS	12/13/2010	Self contained
Transformer bushings	TSCA	30	3.080	EPS	12/13/2010	Self contained
Transformer bushings	TSCA	30	3,140	EPS	12/13/2010	Self contained
Transformer bushings	TSCA	30	3,020	EPS	12/13/2010	Self contained
Transformer bushings	TSCA	30	3,080	EPS	12/13/2010	Self contained
Transformer bushings	TSCA	30	3,140	EPS	12/13/2010	Self contained
Transformer bushings	TSCA	10	340	EPS	12/13/2010	Self contained
Transformer bushings	TSCA	10	340	EPS	12/13/2010	Self contained
Transformer bushings	TSCA	10	340	EPS	12/13/2010	Self contained
Transformer bushings	TSCA	10	340	EPS	12/13/2010	Self contained
Transformer bushings	TSCA	10	356	EPS	12/13/2010	Self contained
Transformer bushings	TSCA	10	500	EPS	12/13/2010	Self contained
Transformer bushings	TSCA	10	356	EPS	12/13/2010	Self contained
Transformer bushings	TSCA	10	356	EPS	12/13/2010	Self contained
Transformer bushings	TSCA	10	356	EPS	12/13/2010	Self contained
Transformer bushings	TSCA	10	356	EPS	12/13/2010	Self contained
Transformer bushings	TSCA.	10	356	EPS	12/13/2010	Self contained
Transformer bushings	TSCA	10	356	EPS	12/13/2010	Self contained
Transformer bushings	TSCA	10	356	EPS	12/13/2010	Self contained
Transformer bushings	TSCA	10	340	EPS	12/13/2010	Self contained
Transformer bushings	TSCA	10	340	EPS	12/13/2010	Self contained
Transformer bushings	TSCA	10	340	EPS	12/13/2010	Self contained
Transformer bushings	TSCA	10	340	EPS	12/13/2010	Self contained
Transformer bushings	TSCA	10	340	EPS	12/13/2010	Self contained
Transformer bushings	TSCA	10	340	EPS	12/13/2010	Self contained
Transformer bushings	TSCA	30	3,060	EPS	12/14/2010	Self contained
Transformer bushings	TRCA	30	3,080	EPS Une	12/14/2010	Self contained
Transformer bushings	TSCA	30	6.070	EPS	12/14/2010	Self contained
Transformer busnings	TSCA	20	0,270	ErS	12/14/2010	Self contained
Transformer bushings	TSCA	30	2,530	EPS	12/14/2010	Self contained
Transformer bushings	TSCA	30	4 730	EPS	12/14/2010	Self contained
Transformer bushings	TSCA	30	2 070	EPC	12/14/2010	Salf contained
radistormer pushings	IJUA	50	4,910	Cr3	12/14/2010	Sen contained

Waste Material	Туре	Volume (cu ft)	Weight (lbs)	Disposal Location	Date Shipped	Container Type
Transformer bushings	TSCA	30	6.190	EPS	12/15/2010	Self contained
Transformer bushings	TSCA	30	6,150	EPS	12/15/2010	Self contained
Transformer bushings	TSCA	30	6,400	EPS	12/15/2010	Self contained
Transformer bushings	TSCA	30	6.090	EPS	12/15/2010	Self contained
Transformer bushings	TSCA	30	2.530	EPS	12/15/2010	Self contained
Transformer bushings	TSCA	30	2.530	EPS	12/15/2010	Self contained
Transformer bushings	TSCA	30	2.970	EPS	12/15/2010	Self contained
Transformer bushings	TSCA	30	4.880	EPS	12/15/2010	Self contained
Transformer hushings	TSCA	30	5,200	EPS	12/16/2010	Self contained
Transformer hushings	TSCA	30	3,300	EPS	12/16/2010	Self contained
Transformer bushings	TSCA	30	5,160	EPS	12/16/2010	Self contained
Transformer bushings	TSCA	30	4.680	EPS	12/16/2010	Self contained
Transformer bushings	TSCA	30	5.620	EPS	12/16/2010	Self contained
Transformer bushings	TSCA	30	5,640	EPS	12/16/2010	Self contained
Transformer bushings	TSCA	30	5,780	EPS	12/16/2010	Self contained
Transformer bushings	TSCA	30	3.060	EPS	12/17/2010	Self contained
Transformer bushings	TSCA	30	5,360	EPS	12/17/2010	Self contained
Transformer bushings	TSCA	30	4,860	EPS	12/17/2010	Self contained
Transformer bushings	TSCA	30	5,500	EPS	12/17/2010	Self contained
Transformer bushings	TSCA	30	4.760	EPS	12/17/2010	Self contained
Transformer bushings	TSCA	30	4.740	EPS	12/17/2010	Self contained
Transformer bushings	TSCA	30	5,700	EPS	12/17/2010	Self contained
Transformer bushings	TSCA	30	5,660	EPS	12/17/2010	Self contained
Transformer bushings	TSCA	30	7,930	FPS	12/20/2010	Self contained
Transformer bushings	TSCA	30	4.040	EPS	12/20/2010	Self contained
Transformer bushings	TSCA	30	6.460	EPS	12/20/2010	Self contained
Transformer bushings	TSCA	30	3 340	EPS	12/20/2010	Self contained
Transformer bushings	TSCA	30	4 900	FPS	12/20/2010	Self contained
Transformer bushings	TSCA	30	4.840	EPS	12/20/2010	Self contained
Transformer bushings	TSCA	30	4,740	FPS	12/20/2010	Self contained
Transformer bushings	TSCA	30	5.100	EPS	12/20/2010	Self contained
Transformer bushings	TSCA	30	2.740	EPS	12/21/2010	Self contained
Transformer bushings	TSCA	30	2.840	EPS	12/21/2010	Self contained
Transformer bushings	TSCA	10	448	EPS	12/21/2010	Self contained
Transformer bushings	TSCA	10	448	EPS	12/21/2010	Self contained
Transformer bushings	TSCA	10	448	EPS	12/21/2010	Self contained
Transformer bushings	TSCA	10	448	EPS	12/21/2010	Self contained
Transformer bushings	TSCA	10	448	EPS	12/21/2010	Self contained
Transformer bushings	TSCA	10	448	EPS	12/21/2010	Self contained
Transformer bushings	TSCA	10	448	EPS	12/21/2010	Self contained
Transformer bushings	TSCA	10	448	EPS	12/21/2010	Self contained
Transformer bushings	TSCA	30	4.960	EPS	12/21/2010	Self contained
Transformer bushings	TSCA	30	5.620	EPS	12/21/2010	Self contained
Transformer bushings	TSCA	30	5,560	EPS	12/21/2010	Self contained
Transformer bushings	TSCA	30	5.020	EPS	12/21/2010	Self contained
Transformer bushings	TSCA	30	3,140	EPS	12/21/2010	Self contained
Transformer hushings	TSCA	30	5.020	EPS	12/27/2010	Self contained
Transformer bushings	TSCA	30	5.020	EPS	12/27/2010	Self contained
Transformer bushings	TSCA	20	2 740	EPS	12/27/2010	Self contained
Transformer hushings	TSCA	20	2,800	EPS	12/27/2010	Self contained
Transformer bushings	TSCA	30	4.720	EPS	12/28/2010	Self contained
Transformer hushings	TSCA	30	5.020	EPS	12/28/2010	Self contained
Transformer hushings	TSCA	20	2 780	EPS	12/28/2010	Self contained
Transformer bushings	TSCA	30	4 790	EPS	12/28/2010	Self contained
Transformer hushings	TSCA	30	3.492	EPS	1/20/2011	Self contained
Transformer hushings	TSCA	10	448	EPS	1/20/2011	Self contained

Waste Material	Туре	Volume (cu ft)	Weight (lbs)	Disposal Location	Date Shipped	Container Type
Transformer bushings	TSCA	10	300	EPS	1/20/2011	Self contained
Transformer bushings	TSCA	10	300	EPS	1/20/2011	Self contained
Transformer bushings	TSCA	10	300	EPS	1/20/2011	Self contained
Transformer bushings	TSCA	10	300	EPS	1/20/2011	Self contained
Transformer bushings	TSCA	5	150	EPS	1/20/2011	Self contained
Transformer bushings	TSCA	5	150	EPS	1/20/2011	Self contained
Transformer bushings	TSCA	5	150	EPS	1/20/2011	Self contained
Transformer bushings	TSCA	10	448	EPS	1/20/2011	Self contained
Transformer bushings	TSCA	10	448	EPS	1/20/2011	Self contained
Transformer bushings	TSCA	10	448	EPS	1/20/2011	Self contained
Transformer bushings	TSCA	5	179	EPS	1/20/2011	Self contained
Transformer bushings	TSCA	5	179	EPS	1/20/2011	Self contained
Transformer bushings	TSCA	5	179	EPS	1/20/2011	Self contained
Transformer bushings	TSCA	5	179	EPS	1/20/2011	Self contained
Transformer bushings	TSCA	5	179	EPS	1/20/2011	Self contained
Transformer bushings	TSCA	5	179	EPS	1/20/2011	Self contained
Transformer bushings	TSCA	5	179	EPS	1/20/2011	Self contained
Transformer bushings	TSCA	5	179	EPS	1/20/2011	Self contained
Transformer bushings	TSCA	5	179	EPS	1/20/2011	Self contained
Transformer bushings	TSCA	5	179	EPS	1/20/2011	Self contained
Transformer bushings	TSCA	5	139	EPS	1/20/2011	Self contained
Transformer bushings	TSCA	5	139	EPS	1/20/2011	Self contained
Transformer bushings	TSCA	5	139	EPS	1/20/2011	Self contained
Transformer bushings	TSCA	5	139	EPS	1/20/2011	Self contained
Transformer bushings	TSCA	5	139	EPS	1/20/2011	Self contained
Transformer hushings	TSCA	5	139	EPS	1/20/2011	Self contained
Transformer bushings	TSCA	5	139	EPS	1/20/2011	Self contained
Transformer bushings	TSCA	5	179	EPS	1/20/2011	Self contained
Transformer hushings	TSCA	5	139	EPS	1/20/2011	Self contained
Transformer bushings	TSCA	5	181	FPS	1/20/2011	Self contained
Transformer hushings	TSCA	5	130	FPS	1/20/2011	Self contained
Transformer hushings	TSCA	5	141	EPS	1/20/2011	Self contained
Transformer bushings	TSCA	5	343	FPS	1/20/2011	Self contained
Transformer bushings	TSCA	5	343	FPS	1/20/2011	Self contained
Transformer bushings	TSCA	5	343	EPS	1/20/2011	Self contained
Transformer hushings	TSCA	5	329	FPS	1/20/2011	Self contained
Transformer hushings	TSCA	5	329	EPS	1/20/2011	Self contained
Transformer bushings	TSCA	5	343	EPS	1/20/2011	Self contained
Transformer hushings	TSCA	5	343	FPS	1/20/2011	Self contained
Transformer bushings	TSCA	5	329	FPS	1/20/2011	Self contained
Transformer bushings	TSCA	5	329	FPS	1/20/2011	Self contained
Transformer hushings	TSCA	5	329	FPS	1/20/2011	Self contained
Transformer bushings	TSCA	5	343	EPS	1/20/2011	Self contained
Transformer bushings	TSCA	5	343	EPS	1/20/2011	Self contained
Transformer hushings	TSCA	5	343	ELS FPS	1/20/2011	Self contained
Transformer bushings	TSCA	5	315	EPS	1/20/2011	Self contained
Transformer bushings	TSCA	5	370	EDS	1/20/2011	Self contained
Transformer bushings	TSCA	5	320	EPS	1/20/2011	Self contained
Aerosol cans	RCRA	5,43	28	The Environmental Quality Company	2/22/2011 <sup>(b)</sup>	Steel drum
Aerosol cans	RCRA	5.43	16	The Environmental Quality Company	2/22/2011(6)	Steel drum
Aerosol cans	RCRA	5.43	27	The Environmental Quality Company	2/22/2011 <sup>(b)</sup>	Steel drum
Aerosol cans	RCRA	5.43	30	The Environmental Quality Company	2/22/2011 <sup>(b)</sup>	Steel drum

Waste Material	Туре	Volume (cu ft)	Weight (lbs)	Disposal Location	Date Shipped	Container Type
Aerosol cans	RCRA	5.43	31	The Environmental Quality Company	2/22/2011 <sup>(b)</sup>	Steel drum
Aerosol cans	RCRA	5.43	27	The Environmental Quality Company	2/22/2011 <sup>(b)</sup>	Steel drum
Aerosol cans	RCRA	5.43	28	The Environmental Quality Company	2/22/2011 <sup>(b)</sup>	Steel drum
Aerosol cans	RCRA	5,43	26	The Environmental Quality Company	2/22/2011 <sup>(b)</sup>	Steel drum
Aerosol cans	RCRA	5.43	29	The Environmental Quality Company	2/22/2011 <sup>(b)</sup>	Steel drum
Aerosol cans	RCRA	5.43	27	The Environmental Quality Company	2/22/2011 <sup>(b)</sup>	Steel drum

(a) Container contains additional PORTS waste (not included in listed volume/weight) from project(s) unrelated to the X-533.

<sup>(b)</sup>Waste was removed from the X-533 site prior to being shipped from the PORTS site,

EPS = Environmental Protection Services

APPENDIX C

FIELD CHANGE DOCUMENTS



Portsmouth/Paducah Project Office 1017 Majestic Drive, Suite 200 Lexington, Kentucky 40513 (859) 219-4000 LATA/Paratlax PORTS. SEP 3 0 2010 001 - 12 RECEIVED

SEP 2 9 2010

PPPO-03-1029318-10

Ms. Maria Galanti Ohio Environmental Protection Agency 2195 Front Street Logan, Ohio 43138

Dear Ms. Galanti:

#### PROJECT SCHEDULE CHANGE FOR THE X-533 SWITCHYARD COMPLEX REMOVAL ACTION WORK PLAN AT THE PORTSMOUTH GASEOUS DIFUSION PLANT, PIKETON, OHIO (DOE/PPPO/03-0104&D2)

The Department of Energy (DOE) is submitting the enclosed schedule change request for a modification to the project schedule in the X-533 Switchyard Complex Removal Action Work Plan (RAWP) at the Portsmouth Gaseous Diffusion Plant, Piketon, Ohio (DOE/PPPO/03-0104&D2) for your review and concurrence.

As described in the RAWP, DOE has been diligently pursuing the non-time-critical removal action at the X-533 Switchyard Complex. This time extension is necessary due to delays in coordinating vendor activities and the disposition of recyclable and reusable materials.

DOE is requesting that the project schedule in the RAWP be modified as follows:

Activity	Planned Start Date	Planned Completion Date
Remove ACM and demolish yard towers	Initiated*	December 15, 2010
Remove transformers	April 15, 2010	December 6, 2010
Demolish control room and switchgear houses	May 1, 2010 December 15, 2010	
Complete project	December 15, 2010	
Submit Construction Completion Report	January 31, 2011	

#### X-533 Switchyard Complex removal schedule

\*Ohio EPA reviewed and concurred with sections of the RAWP that address removal of Asbestos Containing Material and demolition of the yard towers.

A redline and clean copy of the page change is enclosed. Provided our proposed change is acceptable, please remove the existing page from the work plan and exchange it with the enclosed clean page replacement.

Ms. Galanti

DOE will keep you apprised of the status regarding the activities associated with the proposed schedule changes.

If you have any questions or require additional information, please contact Kristi Wiehle of my staff at (740) 897-5020.

Sincerely,

Joel B. Bradburne Portsmouth Site Lead Portsmouth/Paducah Project Office

Enclosures:

1. Redline page 19

2. Replacement page 19

cc w/enclosures: V. Adams, PPPO/PORTS K. Wiehle, PPPO/PORTS L. Bauer, LPP/PORTS Administrative Record – CERCLA PPPO Records/LEX





Southeast District Office

2195 Front Street Logan, Ohio 43138 TELE: (740) 385-8501 FAX: (740) 385-6490 www.epa.state.oh.us

Ted Strickland, Governor Lee Fisher, Lieutenant Governor Chrls Korleski, Director

October 5, 2010

US DOE-PORTS PIKE COUNTY DERR CORRESPONDENCE

Kristi Wiehle, Site Coordinator Portsmouth/Paducah Project Office US Department of Energy Post Office Box 700 Piketon, Ohio 45661

Joel Bradburne, Site Lead Portsmouth/Paducah Project Office US Department of Energy Post Office Box 700 Piketon, Ohio 45661

#### RE: Project Schedule Change for the X-533 Switchyard Complex Removal Action work Plan at the Portsmouth Gaseous Diffusion Plant

Dear Madame and Sir:

Ohio EPA received via e-mail US DOE's request review and concurrence a project schedule modification for the X-533 switchyard Complex Removal Action Work Plan on September 29, 2010. According to your request, the time extension is necessary due to delays in coordinating vendor activities and the disposition of recyclable and reusable materials.

Your requests states that removal of transformers will be completed on December 6, 2010, the demolition of the control room and switchgear houses will be complete on December 15, 2010, removal of the ACM and demolition of the yard towers on December 15, 2010 and the expected date for the completion of the project is December 15, 2010. Also, the revised schedule noted that a construction completion Report will be submitted on January 31, 2011. Does US DOE intend to have completed coordinating vendor activities and allow for final disposition of recyclable and reusable materials in the near future to allow for obtaining the proposed revised schedule? Without obtaining a viable disposition pathway for the recyclable and reusable material it is likely that US DOE will be requesting additional schedule extensions.

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US DOE-PORTS OCTOBER 5, 2010 PAGE 2

Ohio EPA concurs with the revised schedule as long as US DOE continues to inform the Ohio EPA of the status of vendor activities and allows for the timely final disposition of recyclable and reusable material. If you have any questions regarding the correspondence please do not hesitate to contact me at 740-380-5289.

Sincerely,

Maria Galanti Site Coordinator Division of Emergency Remedial Response

MG/cb

cc: Melody Stewart, DHWM, Ohio EPA, Southeast District Office Dr. Linda Bauer, LPP, Inc.



Portsmouth/Paducah Project Office 1017 Majestic Drive, Suite 200 Lexington, Kentucky 40513 (859) 219-4000



NOV 0 1 2010

PPPO-03-1058145-11

Ms. Maria Galanti Site Coordinator Ohio Environmental Protection Agency 2195 Front Street Logan, Ohio 43138

Dear Ms. Galanti:

#### PROJECT CHANGE FOR THE X-533 SWITCHYARD COMPLEX REMOVAL ACTION WORK PLAN AT THE PORTSMOUTH GASEOUS DIFFUSION PLANT, PIKETON, OHIO (DOE/PPPO/03-0104&D2)

The Department of Energy (DOE) appreciates the favorable consideration of Ohio Environmental Protection Agency's (Ohio EPA) concurrence on the X-533 Removal Action Work Plan project schedule change dated October 5, 2010. Questions from Ohio EPA were included in the letter concerning DOE's efforts to complete final disposition of the recyclable materials.

DOE continues in good faith to work in support of the local community reuse organization efforts to recover value from excess material to support the local economic diversification initiatives while dispositioning the scrap metal from the site a timely manner. To expedite the eventual removal of this material from the site, several options are being pursued concurrently to support this goal, for example:

- (1) The Portsmouth Gaseous Diffusion Plant (PORTS) is working with the Southern Ohio Diversification Initiative (SODI) to determine the feasibility of employing a mobile metal crusher to properly size and compact the material for offsite transport and recovery;
- (2) PORTS is looking into acquiring standard roll-off containers to hold and facilitate transport of the material offsite for recycle;
- (3) PORTS is investigating the use of the onsite railroad to transport the material offsite for recycle.

DOE will continue to inform Ohio EPA of the status of vendor activities for the recycling and reuse materials.

DOE anticipates final disposition to commence by April 2011.

If you have any questions or require additional information, please contact Richard Meehan of my staff at (740) 897-3876.

Sincerely,

Joel B. Bradburne Portsmouth Site Lead Portsmouth/Paducah Project Office

CC:

vince.adams@lex.doe.gov, PPPO/PORTS rich.meehan@lex.doe.gov, PPPO/PORTS kristi.wiehle@lex.doe.gov, PPPO/PORTS lbauer@lpports.com, LPP/PORTS Administrative Record - CERCLA PPPO Records/LEX



Portsmouth/Paducah Project Office 1017 Majestic Drive, Suite 200 Lexington, Kentucky 40513 (859) 219-4000

DEC 1 5 2010

PPPO-03-1087945-11

Ms. Maria Galanti Ohio Environmental Protection Agency 2195 Front Street Logan, Ohio 43138

Ms. Galanti:

#### FIELD CHANGE FOR THE X-533 SWITCHYARD COMPLEX REMOVAL ACTION WORK PLAN AT THE PORTSMOUTH GASEOUS DIFFUSION PLANT, PIKETON, OHIO (DOE/PPPO/03-0104&D2): PROJECT SCHEDULE

The Department of Energy (DOE) is requesting Ohio Environmental Protection Agency (Ohio EPA) concurrence with a field change request to modify the X-533 Switchyard Complex Removal Action Work Plan at the Portsmouth Gaseous Diffusion Plant, Piketon, Ohio (X-533 RAWP) (DOE/PPPO/03-0104&D2) project schedule.

Although substantial progress has been made towards the completion of the X-533 Switchyard Complex non-time-critical removal action, the last modification to the project schedule (dated October 5, 2010) was overly ambitious. DOE continues to work the issues as outlined in DOE's letter to Ohio Environmental Protection Agency (EPA) of November 1, 2010 and requests that the schedule be modified as follows:

#### X-533 Switchyard Complex removal schedule

Activity	Planned Start Date	Planned Completion Date
Demolish control room and switchgear houses	May 1, 2010	January 15, 2011
Complete project	January 31, 2011	
Submit Construction Completion Report	March 31, 2011	

Redlined and clean copies of the page change to the X-533 Removal Action Work Plan (RAWP) are enclosed. Provided our proposed changes to the schedule are accepted, please remove the existing page from the work plan and exchange it with the enclosed clean replacement page.

DOE will continue to keep you apprised of the status regarding the activities associated with the proposed schedule changes.

If you have any questions or require additional information, please contact Kristi Wiehle of my staff at (740) 897-5020.

Sincerely,

Joel B. Bradburne Portsmouth Site Lead Portsmouth/Paducah Project Office

Enclosures:

- 1. Redlined Page 19 for the X-533 RAWP
- 2. Replacement Page 19 for the X-533 RAWP

cc w/enclosures: Vince.Adams@lex.doe.gov, PPPO/PORTS Kristi.Wiehle@lex.doe.gov, PPPO/PORTS Linda.Bauer@lex.doe.gov, LPP Administrative Record - CERCLA PPPO Records/LEX

#### Strayer, Dave

From:	Maria Galanti [maria.galanti@epa.state.oh.us]
Sent:	Thursday, December 16, 2010 9:21 AM
To:	Wiehle, Kristi PPPO
Cc:	Amy Lawson; Greg (PPPO/ETS) Uetrecht; Strayer, Dave; Richmond, Rosemary
Subject:	RE: PPPO-03-1077945-11 Field Change for the X-533 Removal Action Work Plan at PORTS
Attachmen	ts: Maria Galanti1 vcf

Kristi,

Ohio EPA has reviewed the request for the Field Change at the X-533 requesting a schedule extension to January 15, 2011 for project completion. The request for the schedule extension was submitted on December 15. US DOE had requested a schedule extension in November 2010 for project completion. The date requested for the schedule extension at that time was December 15. When feasible US DOE should advise Ohio EPA of such a request prior to the date for completion as specified in the schedule. Ohio EPA concurs with US DOE's latest request. If you have any questions, please do not hesitate to call.

Maria Galanti Ohio EPA-DERR maria.galanti@epa.ohio.gov (740) 380-5289 >>> "Wiehle, Kristi" <Kristi.Wiehle@lex.doe.gov> 12/15/2010 11:05 AM >>> Sorry, This is the correct version. Sorry for the confusion.

Kristi Wiehle DOE-Portsmouth Paducah Project Office Phone: (740) 897-5020 Fax: (740) 897-2982 kristi.wiehle@lex.doe.gov

From: Wiehle, Kristi
Sent: Wednesday, December 15, 2010 10:38 AM
To: Maria Galanti
Cc: Lawson, Amy; Uetrecht, Greg (PPPO/ETS); Richmond, Rosemary (LPP); Strayer, Dave; Wiehle, Kristi
Subject: FW: PPPO-03-1077945-11 Field Change for the X-533 Removal Action Work Plan at PORTS

Maria, Attached is the field change request for the X-533 Switchyard. We'll talk more when you get here. Thanks

Kristi Wiehle DOE-Portsmouth Paducah Project Office Phone: (740) 897-5020 Fax: (740) 897-2982 kristi.wiehle@lex.doe.gov

From: Henneberger, Sherry (PPPO/HEI) Sent: Wednesday, December 15, 2010 9:40 AM To: Adams, Vince; Wiehle, Kristi; Ibauer@lpports.com'; rmdc@wems-llc.com; Couch, Rachel (PPPO/PRC)
 Cc: Lawson, Amy; Henneberger, Amanda; Parish, Abigail; Eisnaugle, Malvery
 Subject: PPPO-03-1077945-11 Field Change for the X-533 Removal Action Work Plan at PORTS

Attached is the final for your records.

<< File: 03-1087945-11 FINAL.pdf >>

Thanks

Sherry Kenneberger

TetraTech/HEI; Contractor supporting U.S. Department of Energy Portsmouth/Paducah Project Office sherry.henneberger@lex.doe.gov sherry.henneberger@tetratech.com Phone (740) 897-2768 Fax (740) 897-2982

Ohio Environmental Protection Agency Unless otherwise provided by law,

this communication and any response to it constitutes a public record.

× Ohio EPA Logo

#### Strayer, Dave

From:Richmond, RosemarySent:Tuesday, December 21, 2010 2:34 PMTo:Strayer, Dave; Guilliams, Christopher D; Lyon, RobSubject:FW: Field change for the X-533 Switchyard schedule ClarificationAttachments:Maria Galanti1.vcf

FYI

Rosemary Richmond LPP ER Operations rrichmond@lpports.com 740 897-2967

From: Maria Galanti [mailto:maria.galanti@epa.state.oh.us]
Sent: Tuesday, December 21, 2010 2:31 PM
To: Richmond, Rosemary
Subject: Fwd: Field change for the X-533 Switchyard schedule Clarification

as requested

>>> Maria Galanti 12/21/2010 8:46 AM >>> Kristi,

Pursuant to the December 15th submittal requesting a field change for the X-533 Switchyard, Ohio EPA understands that the project completion date is now scheduled for January 31, 2011. US DOE will complete the demolition of the control room and the switchgear houses by January 15, 2011. The construction completion report will be submitted on March 31, 2011. Ohio EPA concurs with the schedule as presented in your December 15 correspondence. If you have any questions please do not hesitate to contact me.

×

Maria Galanti Ohio EPA-DERR maria.galanti@epa.ohio.gov (740) 380-5289

Ohio Environmental Protection Agency Unless otherwise provided by law,

this communication and any response to it constitutes a public record.





Portsmouth/Paducah Project Office 1017 Majestic Drive, Suite 200 Lexington, Kentucky 40513 (859) 219-4000 OCT 1 5 2010

PPPO-03-1044795-11

Ms. Maria Galanti Ohio Environmental Protection Agency 2195 Front Street Logan, Ohio 43138

Dear Ms. Galanti:

#### FIELD CHANGE FOR THE X-533 SWITCHYARD COMPLEX REMOVAL ACTION WORK PLAN AT THE PORTSMOUTH GASEOUS DIFFUSION PLANT, PIKETON, OHIO (DOE/PPPO/03-0104&D2)

The Department of Energy (DOE) is submitting the enclosed field change request for a modification to expand the equipment staging area from approximately four acres to approximately eight acres north of the X-533 switchyard. The staging area was established in the X-533 Switchyard Complex Removal Action Work Plan (RAWP) at the Portsmouth Gaseous Diffusion Plant, Piketon, Ohio (DOE/PPPO/03-0104&D2) for your review and concurrence.

The equipment/material staging area will need to be expanded in order to accommodate the equipment that must be removed from the X-533 switchyard to complete the demolition activities. This expanded area will provide additional space to complete dismantlement and size reduction of equipment and metals prior to transport from the site. The expanded area also provides additional space for management and segregation of recyclable materials.

DOE continues in good faith to work in support of the local community reuse organization efforts to recover value from excess material to support the local economic diversification initiatives while dispositioning the scrap metal from the site in a timely manner. Previous efforts to accomplish this goal have been hindered by the inability of the Southern Ohio Diversification Initiative (SODI) to secure an acceptable bid for the entire lot of scrap metal made available from demolition of the X-533 switchyard. To compensate for this shortcoming, and to expedite the eventual removal of this material from the site, several options are being pursued concurrently to support this goal, for example:

- The Portsmouth Gaseous Diffusion Plant (PORTS) is working with SODI to determine the feasibility of employing a mobile metal crusher to properly size and compact the material for offsite transport and recovery;
- (2) PORTS is looking into acquiring standard roll-off containers to hold and facilitate transport of the material offsite for recycle;
- (3) PORTS is investigating the use of the onsite railroad to transport the material offsite for recycle.

Ms. Galanti

To fully develop these options, additional space is required to temporarily store a larger inventory of material generated from the X-533 project, as well as, site any additional equipment needed to accomplish the goal of removal of the scrap material.

A redline and clean copy of the page changes are enclosed for your review. Provided our proposed change is acceptable, please remove the existing pages from the work plan and exchange them with the enclosed replacements.

If you have any questions or require additional information, please contact Richard Meehan of my staff at (740) 897-3876.

Sincerely,

Vinee Adams

Portsmouth Site Director Portsmouth/Paducah Project Office

Enclosures:

- 1. Redline Page 11
- 2. Replacement Pages 11 and 13

cc w/enclosures:

richard.meehan@lex.doe.gov, PPPO/PORTS joel.bradburne@lex.doe.gov, PPPO/PORTS Kristi.wiehle@lex.doe.gov, PPPO/PORTS Ibauer@lpports.com, LPP/PORTS Administrative Record – CERCLA PPPO Records/LEX

-2-



State of Ohio Environmental Protection Agency

#### Southeast District Office

2195 Front Street Logan, Ohio 43138

TELE: (740) 385-8501 FAX: (740) 385-6490 www.epa.stetc.oh.us

Ted Strickland, Governor Lee Fisher, Lieutenant Governor Chris Korleski, Director

LATA/Parailax PORTS

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RECEIVED

US DOE-PORTS PIKE COUNTY DERR CORRESPONDENCE

Joel Bradburne, Site Lead Portsmouth/Paducah Project Office US Department of Energy Post Office Box 700 Piketon, Ohio 45661

November 3, 2010

Kristi Wiehle, Site Coordinator Portsmouth/Paducah Project Office US Department of Energy Post Office Box 700 Piketon, Ohio 45661

#### RE: Field Change for the X-533 Switchyard Complex Removal Action Work Plan

Dear Sir and Madame:

Ohio EPA has completed the review of your request for concurrence to the proposed field change for the X-533 Switchyard dated October 15, 2010. In the request, you state that the current staging area will need to be expanded to accommodate equipment that must be moved from the X-533 Switchyard to complete demolition activities. The expanded area will provide additional space to complete dismantlement and size reduction of equipment and metals prior to transport from the site.

Ohio EPA understands that US DOE has been working with the local community reuse organization to recover value from excess material to support local economic diversification initiatives while dispositioning the scrap metal from the site in a timely manner. To date, efforts have been hindered for a variety of reasons and very little, if any, material has been removed from the site. During an inspection I conducted on October 20 of the current staging area, I noted that the scrap metal, as well as other recyclable material, continues to be piled up regardless of the type of metal, the size of the scrap metal and/or the potential for recycle. It appears that the metal was just placed in the current staging area without thought of final disposition pathways to expedite the ongoing D&D of several facilities. Such activities may make it harder for US DOE to move forward in an expedited manner to recover value from the excess material.

B Printed on Recycled Paper

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US DOE-PORTS PIKE COUNTY NOVEMBER 3, 2010 PAGE 2

According to your correspondence, US DOE noted three efforts underway to try to expedite the removal of the material from the current staging area:

- Evaluation of a mobile crusher to properly size and compact the material for offsite transport and recovery;
- Evaluation of acquisition of standard roll-off containers to hold and facilitate transport of the material offsite for recycle;
- Investigations of the use of the onsite railroad to transport the material for offsite recycle.

Based on the efforts listed above, Ohio EPA concurs with the proposed field change for the expansion of the current staging area to accommodate the additional equipment that must be removed for the switchyard under the following conditions:

- US DOE agrees to perform an investigation pursuant to the requirements of the Ohio Consent Decree of the current staging area and the expanded staging area to determine if contaminants have migrated from the stored material onto the ground once the material has been removed;
- US DOE only expands the staging area as needed to accommodate the additional equipment;
- 3. US DOE continues to inform the Ohio EPA about the progress to recycle the scrap metal and other material being stored in this area, and;
- 4. US DOE proposes a schedule when material will begin to leave the site and when it is expected that all the recyclable material will be removed from the site.

Please contact me as soon as possible should US DOE disagree with the conditions set forth in this letter. If US DOE does agree with the conditions, US DOE may proceed with the expansion of the current staging area. If you have any questions regarding the correspondence, please do not hesitate to contact me at 740-380-5289 or maria.galanti@epa.ohio.gov.

Sincerely Maria Galanti

Site Coordinator Division of Emergency and Remedial Response

MG/jg

cc: Melody Stewart, DHWM, Ohio EPA, Southeast District Office Dr. Linda Bauer, LPP, Inc. Vincent Adams, Site Director, PPPO-PORTS William Murphie, Manager, Portsmouth/Paducah Project Office



Portsmouth/Paducah Project Office 1017 Majestic Drive, Suite 200 Lexington, Kentucky 40513 (859) 219-4000

NOV 2 4 2010

PPPO-03-1073496-11

Ms. Maria Galanti Ohio Environmental Protection Agency 2195 Front Street Logan, Ohio 43138

Dear Ms. Galanti:

#### FIELD CHANGE FOR THE X-533 SWITCHYARD COMPLEX REMOVAL ACTION WORK PLAN AT THE PORTSMOUTH GASEOUS DIFFUSION PLANT, PIKETON, OHIO (DOE/PPPO/03-0104&D2): CONCRETE SLABS OF THE X-533B CONTROL ROOM AND SWITCH GEAR HOUSES

The Department of Energy (DOE) is requesting Ohio Environmental Protection Agency (Ohio EPA) concurrence with a field change request to modify the X-533 Switchyard Complex Removal Action Work Plan at the Portsmouth Gaseous Diffusion Plant, Piketon, Ohio (X-533 RAWP) (DOE/PPPO/03-0104&D2) to leave in place the concrete slabs of the X-533B Control Room and Switch Gear Houses.

The X-533 concrete would be left in place and inspected for stains. If stains were found, the stained areas either would be covered with steel plates and sealed or would be cut out and disposed off site. Vaults, manways, any other openings in the remaining concrete slabs, and the underground cable tunnels, would be covered with steel plates and sealed.

Redlined and clean copies of the page changes to the X-533 RAWP are enclosed. Provided our proposed changes are accepted, please remove the existing pages from the work plan and exchange them with the enclosed clean replacement pages.

If you have any questions or require additional information, please contact Kristi Wiehle of my staff at (740) 897-5020.

Sincerely,

400

Joel B. Bradburne Portsmouth Site Lead Portsmouth/Paducah Project Office

Ms. Galanti

Enclosures:

- 1. Redlined Pages ii, vi, 1, 8, 14, and 16 for the X-533 RAWP
- 2. Replacement Pages ii, vi, 1, 8, 14, and 16 for the X-533 RAWP

cc w/enclosures: joel.bradburne@lex.doe.gov, PPPO/PORTS lbauer@lpports.com, LPP/PORTS Administrative Record - CERCLA PPPO Records/LEX



State of Ohlo Environmental Protection Agency



Southeast District Office

2195 Front Street Logan, Ohio 43138 TELE: (740) 385-8501 FAX: (740) 385-6490 www.epa.state.oh.us

Ted Strickland, Governor Lee Fisher, Lieutenant Governor Chris Korleski, Director

December 2, 2010

US DOE-PORTS PIKE COUNTY DERR CORRESPONDENCE

Joel Bradburne, Site Lead Portsmouth/Paducah Project Office US Department of Energy Post Office Box 700 Piketon, Ohio 45661

Kristi Wiehle, Site Coordinator Portsmouth/Paducah Project Office US Department of Energy Post Office Box 700 Piketon, Ohio 45661

RE: Field Change for the X-533 Switchyard Complex Removal Action Work Plan at the Portsmouth Gaseous Diffusion Plant, Piketon

Dear Sir and Madame:

Ohio EPA has completed the review of your correspondence submitted to this office via e-mail on November 29, 2010 requesting concurrence for a field change at the X-533 Switchyard Complex. The Removal Action Work Plan would be modified to include leaving the concrete slabs in place. The slabs would be inspected for stains. If stains were found, the stained areas either would be covered with steel plates and sealed or would be cut out and disposed of offsite. Vaults, manways, any other openings remaining in the concrete slabs, and the underground cable tunnels, would be covered with steel plates and sealed.

The current removal action work plan requires the removal of the concrete slabs below the switch houses and control room. Ohio EPA and US DOE met on November 17, 2010 to discuss the challenges facing the project and potential options regarding the concrete slabs. At that time, the changes outlined above to the removal action work plan were discussed. The area in question may be used as a lay down area for future D&D and thus, the slabs may be of future use. Pursuant to that discussion and the submitted request, Ohio EPA concurs with the field change request as submitted by US DOE. If you have any questions, regarding this correspondence please do not hesitate to contact me at 740-380-5289 or maria.galanti@epa.ohio.gov.

Sincerely,

Maria Galanti Site Coordinator Division of Emergency and Remedial Response

MG/jg

cc: Melody Stewart, DHWM, Ohio EPA, Southeast District Office Dr. Linda Bauer, LPP, Inc. Vincent Adams, Site Director, PPPO-PORTS William Murphie, Manager, Portsmouth/Paducah Project Office

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#### Strayer, Dave

Wiehle, Kristi [Kristi.Wiehle@lex.doe.gov]
Friday, January 14, 2011 12:34 PM
Maria Galanti
Strayer, Dave; Richmond, Rosemary; Lawson, Amy; Vick, Matt PPPO; Uetrecht, Greg (PPPO/ETS)
X-533 Field Change - Trailers
X-533 Trailers - Field Change redline pages.doc; X-533 Trailers - Field Change replacement pages.doc

Maria,

As we discussed on January 10, 2011, DOE has identified a benefit to leaving the trailer complex at the X-533 Switchyard Complex in place after completion of the X-533 removal action. The trailers would continue to be used to support the X-630 removal action and other future projects. As the current X-533 Removal Action Work Plan calls for removal of the trailers upon completion of the X-533 removal action, we are requesting Ohio EPA concurrence with a field change to allow the trailers to remain to be used to support those future projects.

Both a redline showing the requested change and a clean replacement of the affected pages of the Work Plan are attached for your review and use.

Please let me know if you have any questions and we can discuss it more next week. Thanks for your time and have a good weekend.

Kristi Wiehle DOE-Portsmouth Paducah Project Office Phone: (740) 897-5020 Fax: (740) 897-2982 kristi.wiehle@lex.doe.gov

From: Strayer, Dave [mailto:DStrayer@lpports.com]
Sent: Tuesday, January 11, 2011 7:55 AM
To: Wiehle, Kristi; Lawson, Amy; Uetrecht, Greg (PPPO/ETS)
Cc: Sharp, Dave (LPP); Richmond, Rosemary (LPP); Giroir, Bob; Hawk, Joe; Koenig, Amanda
Subject: X-533 Field Change - Trailers

#### Strayer, Dave

From:	Maria Galanti [maria.galanti@epa.state.oh.us]
Sent:	Tuesday, January 18, 2011 4:55 PM
To:	Wiehle, Kristi PPPO
Cc:	Amy Lawson; Greg (PPPO/ETS) Uetrecht; Vick, Matt PPPO; Strayer, Dave; Richmond, Rosemary
Subject:	Re: X-533 Field Change - Trailers
Attachmen	ts: Maria Galanti1.vcf

Kristi,

Pursuant to our conversation last week and the attached modification, Ohio EPA concurs with the field change for the X-533 removal action. Based on my understanding the trailers at the X-533 Switchyard complex will remain to support the future removal action at the X-630 cooling tower and other projects that are necessary during the D&D operations. If you have any questions regarding this e-mail, please feel free to contact me.

Maria Galanti Ohio EPA-DERR maria.galanti@epa.ohio.gov (740) 380-5289

>>> "Wiehle, Kristi" <Kristi.Wiehle@lex.doe.gov> 1/14/2011 12:34 PM >>>

Maria,

As we discussed on January 10, 2011, DOE has identified a benefit to leaving the trailer complex at the X-533 Switchyard Complex in place after completion of the X-533 removal action. The trailers would continue to be used to support the X-630 removal action and other future projects. As the current X-533 Removal Action Work Plan calls for removal of the trailers upon completion of the X-533 removal action, we are requesting Ohio EPA concurrence with a field change to allow the trailers to remain to be used to support those future projects.

Both a redline showing the requested change and a clean replacement of the affected pages of the Work Plan are attached for your review and use.

Please let me know if you have any questions and we can discuss it more next week. Thanks for your time and have a good weekend.

Kristi Wiehle

DOE-Portsmouth Paducah Project Office

Phone: (740) 897-5020

Fax: (740) 897-2982

kristi.wiehle@lex.doe.gov

From: Strayer, Dave [mailto:DStrayer@lpports.com]
Sent: Tuesday, January 11, 2011 7:55 AM
To: Wiehle, Kristi; Lawson, Amy; Uetrecht, Greg (PPPO/ETS)
Cc: Sharp, Dave (LPP); Richmond, Rosemary (LPP); Giroir, Bob; Hawk, Joe; Koenig, Amanda
Subject: X-533 Field Change - Trailers

Ohio Environmental Protection Agency Unless otherwise provided by law,

this communication and any response to it constitutes a public record.

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Portsmouth/Paducah Project Office 1017 Majestic Drive, Suite 200 Lexington, Kentucky 40513 (859) 219-4000

JAN 31 2011

PPPO-03-1129435-11

Ms. Maria Galanti Ohio Environmental Protection Agency 2195 Front Street Logan, Ohio 43138

Dear Ms. Galanti:

#### PROJECT CHANGES FOR THE X-533 SWITCHYARD COMPLEX REMOVAL ACTION WORK PLAN AT THE PORTSMOUTH GASEOUS DIFFUSION PLANT, PIKETON, OHIO (DOE/PPPO/03-0104&D2) AND THE X-760 CHEMICAL ENGINEERING BUILDING REMOVAL ACTION WORK PLAN AT THE PORTSMOUTH GASEOUS DIFFUSION PLANT, PIKETON, OHIO (DOE/PPPO/03-0108&D1)

This purpose of this letter is to provide Ohio Environmental Protection Agency (Ohio EPA) with the enclosed project change requests for the X-533 Switchyard Complex Removal Action Work Plan at the Portsmouth Gaseous Diffusion Plant, Piketon, Ohio (X-533 RAWP) (DOE/PPPO/03-0104&D2) and the X-760 Chemical Engineering Building Removal Action Work Plan at the Portsmouth Gaseous Diffusion Plant, Piketon, Ohio (X-760 RAWP) (DOE/PPPO/03-0108&D1). These project changes will permit the Department of Energy (DOE) to leave the office trailers in place at the X-533 project site and the X-760 project site. The trailers will be used to support future Decontamination & Decommissioning activities in those areas. The proposed changes were transmitted via electronic mail on January 14 and 21, 2011. Ohio EPA approved these changes on January 18 and 24, 2011, respectively. This letter serves to provide you with a formal copy of both the X-533 and X-760 field changes.

The redlined and clean copies of the page changes to the X-533 and X-760 Removal Action Work Plans (RAWP) have been provided. Please remove the existing pages from each work plan and exchange them with the clean replacement pages.

If you have any questions or require additional information, please contact Kristi Wiehle of my staff at (740) 897-5020.

Sincerely.

Joel B. Bradburne Portsmouth Site Lead Portsmouth/Paducah Project Office

Enclosures:

1. X-533 RAWP - Redline pages 16 and 17

2. X-533 RAWP - Replacement pages 16 and 17

3. X-760 RAWP - Redline page 19

4. X-760 RAWP - Replacement page 19

cc w/enclosures:

Vince.Adams@lex.doe.gov, PPPO/PORTS Kristi.Wiehle@lex.doe.gov, PPPO/PORTS Ibauer@lpports.com, LPP/PORTS Administrative Record - CERCLA PPPO Records/LEX



Portsmouth/Paducah Project Office 1017 Majestic Drive, Suite 200 Lexington, Kentucky 40513 (859) 219-4000

FEB 1 5 2011

Ms. Maria Galanti Ohio Environmental Protection Agency 2195 Front Street Logan, Ohio 43138 PPPO-03-1133940-11

Dear Ms. Galanti:

#### FIELD CHANGE FOR THE X-533 SWITCHYARD COMPLEX REMOVAL ACTION WORK PLAN AT THE PORTSMOUTH GASEOUS DIFFUSION PLANT, PIKETON, OHIO (DOE/PPPO/03-0104&D2): TRANSFORMER STORAGE PAD

The Department of Energy (DOE) is requesting Ohio Environmental Protection Agency (Ohio EPA) concurrence with a field change request to modify the X-533 Switchyard Complex Removal Action Work Plan at the Portsmouth Gaseous Diffusion Plant, Piketon, Ohio (X-533 RAWP) (DOE/PPPO/03-0104&D2) to leave the transformer storage pad in place. The transformer storage pad is being used to support the ongoing disassembly of transformers.

Redlined and clean copies of the page changes to the X-533 Removal Action Work Plan (RAWP) are enclosed. Provided our proposed changes are accepted, please remove the existing pages from the work plan and exchange them with the enclosed clean replacement pages.

If you have any questions or require additional information, please contact Kristi Wiehle of my staff at (740) 897-5020.

Sincerely,

Joel B. Bradburne Portsmouth Site Lead Portsmouth/Paducah Project Office

Enclosures:

- 1. Redlined Pages vi and 14 for the X-533 RAWP
- 2. Replacement Pages vi and 14 for the X-533 RAWP

RECEIVED

FEB 1 5 2011 LPPII/001-038
Ms. Galanti

cc w/enclosures: Vince.Adams@lex.doe.gov, PPPO/PORTS Kristi.Wiehle@lex.doe.gov, PPPO/PORTS Ibauer@lpports.com, LPP/PORTS marc.jewett@fluor.com, FBP/PORTS Administrative Record – CERCLA PPPO Records/LEX

## Strayer, Dave

From:	Wiehle, Kristi [Kristi.Wiehle@lex.doe.gov]
Sent:	Tuesday, March 08, 2011 8:06 AM
To:	Richmond, Rosemary; Guilliams, Christopher D; Strayer, Dave
Cc:	Lawson, Amy; Uetrecht, Greg (PPPO/ETS)
Subject:	FW: X-533 field change Request: Transformer Storage Pad
Attachmen	ts: Maria Galanti1.vcf

Kristi Wiehle DOE-Portsmouth Paducah Project Office Phone: (740) 897-5020 Fax: (740) 897-2982

kristi.wiehle@lex.doe.gov

From: Maria Galanti [mailto:maria.galanti@epa.state.oh.us] Sent: Monday, March 07, 2011 1:37 PM To: Wiehle, Kristi Subject: X-533 field change Request: Transformer Storage Pad

Kristi,

I have completed the review of US DOE's request for a modification of the X-533 RAWP to leave the transformer storage pad in place dated February 15, 2011. Ohio EPA concurs with US DOE's request due to the fact that the transformer storage pad is being used to support the ongoing disassembly of transformers.

If you have any questions, please do not hesitate to call.

Maria Galanti Ohio EPA-DERR <u>maria.galanti@epa.ohlo.gov</u> (740) 380-5289

Ohio Environmental Protection Agency Unless otherwise provided by law,

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