



# Recording History at the Portsmouth Gaseous Diffusion Plant

Consulting Party Meeting

May 24, 2012



# PORTS Time Line

1952 1975 1992 1996 1998 2001 2005 2010 2011 2012 FUTURE

## Gaseous Diffusion Uranium Enrichment

Goodyear Atomic

Martin  
Marietta

Lockheed  
Martin

USEC

## Cold Stand by

USEC

## Cold Shutdown

USEC

## Decontamination & Decommissioning

Fluor B&W  
Portsmouth

## Environmental Restoration

Martin  
Marietta

Lockheed  
Martin

Bechtel  
Jacobs

LATA  
Parallax

## DUF6 Conversion Plant

Uranium Disposition  
Services

Babcock and Wilcox  
Conversion Services

## American Centrifuge Plant

USEC

1964 Portsmouth Gaseous Diffusion Plant

5/24/2012





# DOE Prime Contractors



Restoration Services, Inc.

B&W conversion services, llc



2006 Portsmouth Gaseous Diffusion Plant





# D&D Contract Scope of Work

- Decontaminate and Decommission (D&D) more than 400 facilities, associated material inventories, and process equipment.
- Remediate more than 600,000 yd<sup>3</sup> of contaminated soil and groundwater.
- Dispose waste generated by D&D project.
- Release suitable land for reuse.

2006 Portsmouth Gaseous Diffusion Plant





# Three Components of PORTS History

- Prehistoric
- Farmsteads & Cemeteries
- Cold War/DOE-Built Environment

2006 Portsmouth Gaseous Diffusion Plant





# Prehistoric



Graded Way in Piketon, Ohio; photo courtesy of Ohio Historical Society



# Identifying Prehistoric Properties

## DOE completed the following:

- ✓ National Historic Preservation Act Section 110 Survey using LiDAR technology to identify prehistoric Native American Mounds at the Portsmouth Gaseous Diffusion Plant.
- ✓ A Resource Document to consolidate the extensive information that has been developed over time by a variety of archeologists and other subject matter experts on earthworks and mounds in the Scioto River Valley.

- Earthworks and mounds have been identified near the PORTS property.
- No documented and confirmed prehistoric mounds or earthworks are located on PORTS property.



*The Seal Township Works*





Graded Way 33Pk1

Mound Cemetery

# Earthworks and Mounds Identified Near the Portsmouth Gaseous Diffusion Plant



11mk down Milk Mound

Van Meter Mounds 33Pk4

Vulgamore Mound 33Pk5

Earthwork "N" 33Pk6

Seal Township Works 33Pk22

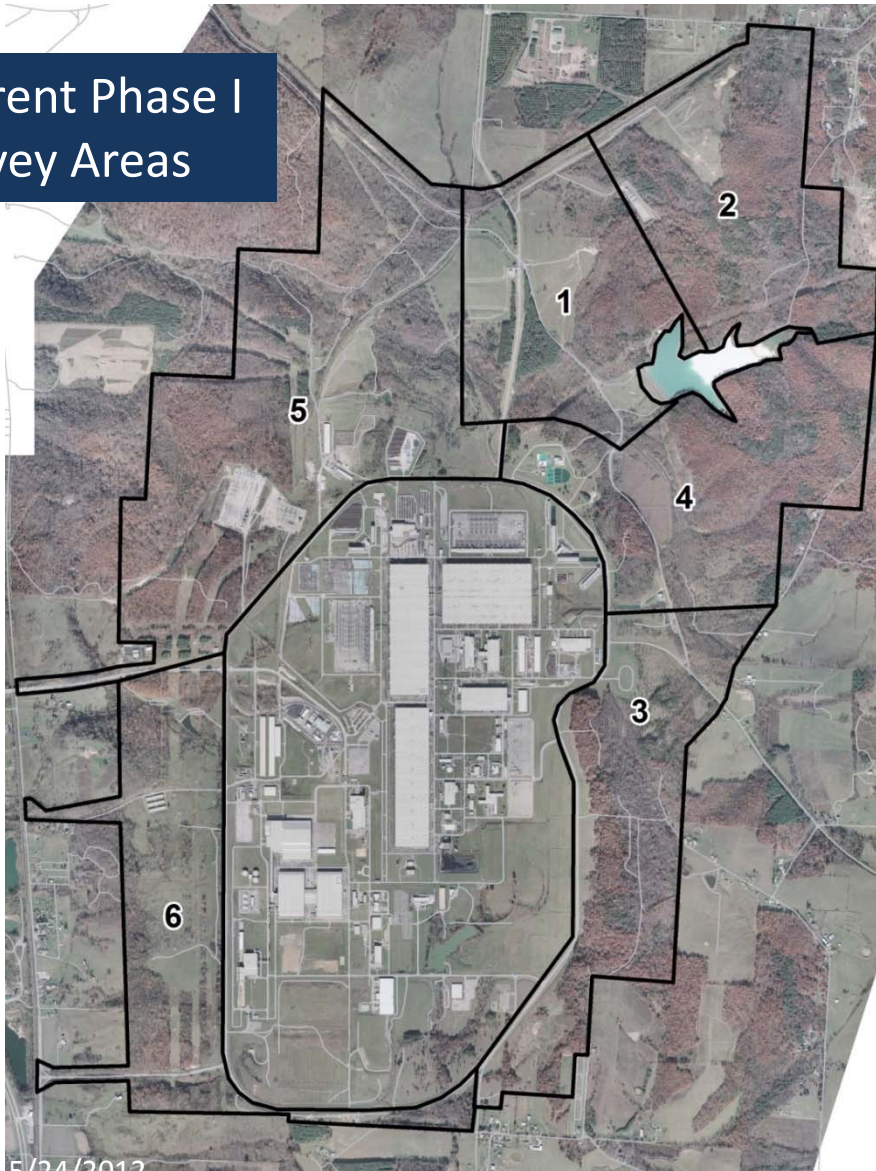
Legend

- Mound
- ☆ Earthwork



# Identifying Prehistoric Properties

Current Phase I  
Survey Areas



**DOE is conducting  
Phase I Surveys in areas  
outside Perimeter Road**

Consultation/  
Public Involvement  
Opportunity

- *Are there areas of cultural or religious significance?*
- *Other ideas?*





Abandoned septic tank on Brodess Farm

# Farmsteads & Cemeteries

Gravesite in pre-Civil War Cemetery located on DOE Site

5/24/2012



# Identifying Farmsteads and Cemeteries

## DOE completed the following:

- ✓ Reconnaissance Survey and Phase I investigations of the PORTS property
- ✓ Phase II Investigations on selected sites
- ✓ Geophysical survey of one cemetery



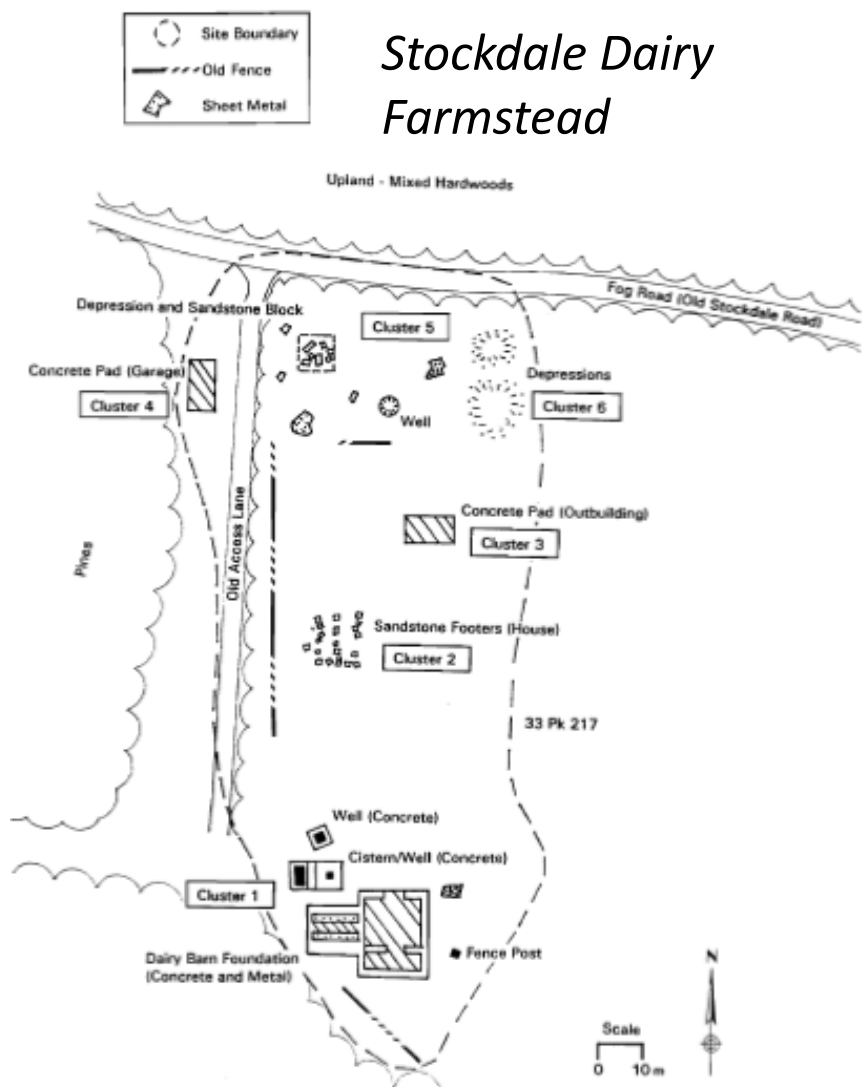
Glass bottle left behind on Brodess Farm



Remnants of a silo at site 33 Pk 324



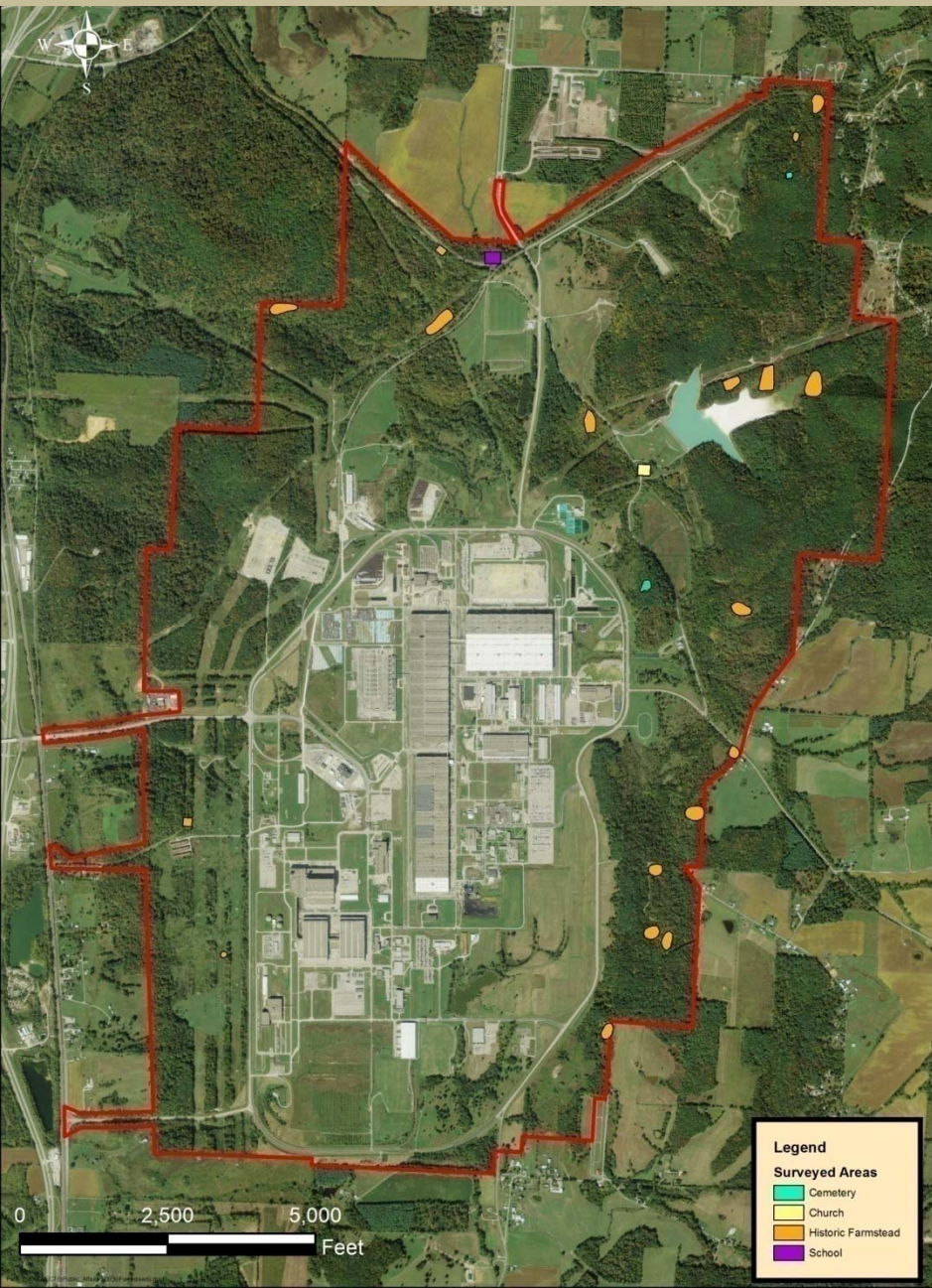
# Identifying Farmsteads and Cemeteries



*Items recovered from Farmsteads*



# Identifying Farmsteads and Cemeteries



**DOE is preparing a  
Summary Report on the  
farming communities  
displaced by the  
Atomic Energy Commission**

Consultation/  
Public Involvement  
Opportunity

- *What community effects should be included?*
- *Other ideas?*





# Cold War/DOE-Built Environment



# Recording the Cold War Era

## **DOE is completing the following:**

- ✓ Identifying, selecting, cataloging, photographing, and preserving selected items from the Portsmouth Gaseous Diffusion Plant (PORTS) Cold War-era operational period.
- ✓ Capturing oral histories from former workers.
- ✓ Photographing buildings and structures
- ✓ Establishing the historic context
- ✓ Documenting individual resources from the Cold War-era core processing facilities and processing support facilities
- ✓ Cataloging more than 1,500 items



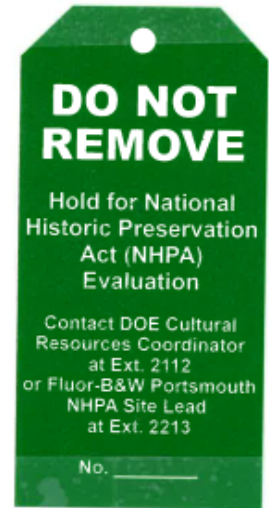
X-710 Technical Services Building (Laboratory)



# Recording the Cold War Era

## Selection of Salvaged Items:

- Item selection is a collaborative effort, and involves the NHPA Site Lead, Facility Owners and Facility Custodians, Facility Subject Matter Experts, a Photographer, as well as former employees and retired personnel with process and/or facility knowledge.
- To identify representative items unique and/or significant to the PORTS operations, an NHPA “green-tag” is placed on the items and the items are immediately photographed.
- The items are housed in the XT-847 and X-720B Facilities pending NHPA evaluation.
- The NHPA Site Lead records a description of the items in a computer-based inventory. This inventory maintains all photographed items, the item/s is located (building name, floor number, column numbers, etc.) within the PORTS site.







# Examples of Items currently tagged for recovery

Pneumatic communication from the X-333 Process Building Control Room to the cell floor

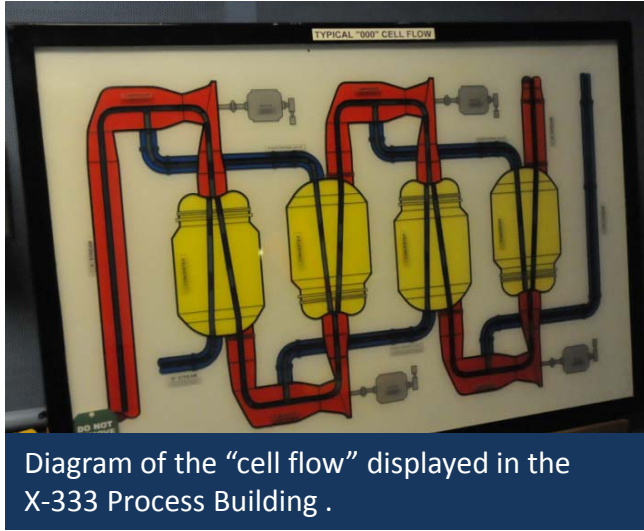
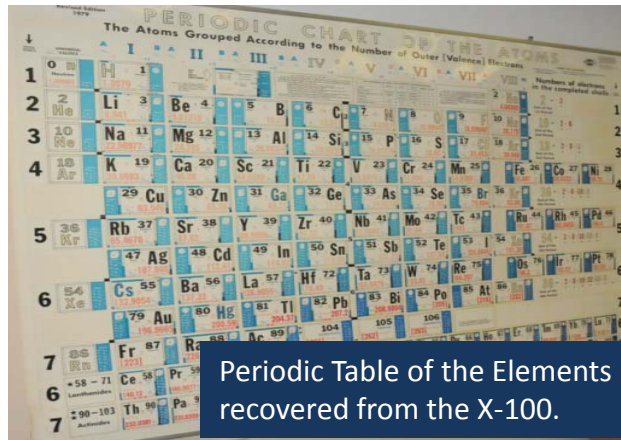


Diagram of the "cell flow" displayed in the X-333 Process Building .

The nuclear radiation carrier from the X-101 Health Services Center.



Telephone used to communicate from process building control rooms to the operating cell floor.

Periodic Table of the Elements recovered from the X-100.

Goodyear hard hat recovered from the X-100.



# Recording the Cold War Era



From January 31 – May 17, 2012  
**3,032 people visited this site**  
from 23 different countries



[www.portsvirtualmuseum.org](http://www.portsvirtualmuseum.org)



# Recording the Cold War Era



X-326 Process Building

Core Processing Resources



X-720 Maintenance and Stores

Processing Support Resources



X-744W Warehouse

Non-Cold War-era Resources

**DOE is preparing a  
*Comprehensive Historic  
Context Report*  
of the site using an  
architectural historian**




Consultation/  
Public Involvement  
Opportunity

- *What aspects of the Cold War era are most important?*
- *Other ideas?*






# Where we are in the D&D Decision Process



<b>Process Building D&amp;D</b>	Evaluation of Alternatives, Informational Meetings and Workshops	Proposed Plan	Public Comment Period	Record of Decision	Work Begins
<b>Waste Disposition</b>	Evaluation of Alternatives, Informational Meetings and Workshops	Proposed Plan	Public Comment Period	Record of Decision	Work Begins
<b>RCRA Soil Decision</b>	Implement Ongoing Corrective Measures (already in place from previous decisions)			Evaluation of Alternatives	

 *Section 106 of the National Historic Preservation Act has been identified as an Applicable or Relevant and Appropriate Requirement (ARAR) for the CERCLA actions. Resolution of adverse effects will be included in the Records of Decisions.*



# Available Reports

**Copies of full reports can be found at  
<http://www.pppo.energy.gov/nhpa.html>**

- 2010 *National Historic Preservation Act Section 110 Survey of Architectural Properties at the Portsmouth Gaseous Diffusion Plant in Scioto and Seal Townships, Piketon, Ohio. Restoration Services, Inc. Oak Ridge, Tennessee.*
- 2011 *National Historic Preservation Act Section 110 Survey Conducted to Identify Prehistoric Native American Mounds at the Portsmouth Gaseous Diffusion Plant, in Scioto and Seal Townships, Piketon, Ohio. Ohio Valley Archeology, Columbus, Ohio.*
- 2011 *Prehistoric Native American Earthwork and Mound Sites in the Area of the Department of Energy Portsmouth Gaseous Diffusion Plant, Pike County, Ohio. Ohio Valley Archeology, Columbus, Ohio.*



# Available Reports

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<http://www.pppo.energy.gov/nhpa.html>**

Burks, Jarrod

2011 *Geophysical Survey at the Holt Cemetery at the Portsmouth Gaseous Diffusion Plant, Piketon, Ohio.* Ohio Valley Archeology, Columbus, Ohio.

Schweikart, John F., Kevin Coleman, and Flora Church

1997 *Phase I Archaeological Survey for the Portsmouth Gaseous Diffusion Plant (PORTS Facility) in Scioto and Seal Township, Pike County, Ohio.* ASC Group, Inc. , Columbus, Ohio.





# Questionnaire

The US Department of Energy (DOE) welcomes your input to develop mitigation measures to address the adverse effects that may result from the decontamination and decommissioning (D&D) and environmental corrective actions. There are two ways in which you can provide input.

**CLICK** on the link to complete the questionnaire. Follow the instructions provided to send your input directly to DOE.

<http://fbportsmouth.com>

***OR***

**PRINT** the questions on the next four slides and mail your input to DOE at the following address:

US DOE

PO Box 700

Piketon, Ohio

ATTN: Ms. Amy Lawson



# Questionnaire

1. Which components of PORTS History are most important to you?
  - a. Prehistoric
  - b. Historic
  - c. Cold War/DOE built environment
  - d. All of the above

Please provide additional information. Attach additional pages, if necessary:

**\*\*Continue to Next Page\*\***





# Questionnaire

2. Have you ever worked at PORTS?
  - a. Yes
  - b. No
  
3. Did a member or members of your family work at PORTS?
  - a. Yes
  - b. No
  - c. Don't know
  
4. Did you or a member of your family live on or own the property acquired by the Atomic Energy Commission for the Portsmouth Site?
  1. Yes
  2. No
  3. Don't know

**\*\*Continue to Next Page\*\***



# Questionnaire

5. What types of mitigation measures are appropriate to address the adverse effects that may result from the potential decontamination and decommissioning (D&D) of the gaseous diffusion plant buildings? Attach additional pages, if necessary.





# Questionnaire

6. What types of mitigation measures are appropriate to address the adverse effects that may result from the disposal of waste generated by the D&D project? Attach additional pages, if necessary.