



# The CERCLA Process

Department of Energy  
Portsmouth Site Specific Advisory Board Meeting

March 4, 2010

***EM*** *Environmental Management*

*safety* ❖ *performance* ❖ *cleanup* ❖ *closure*



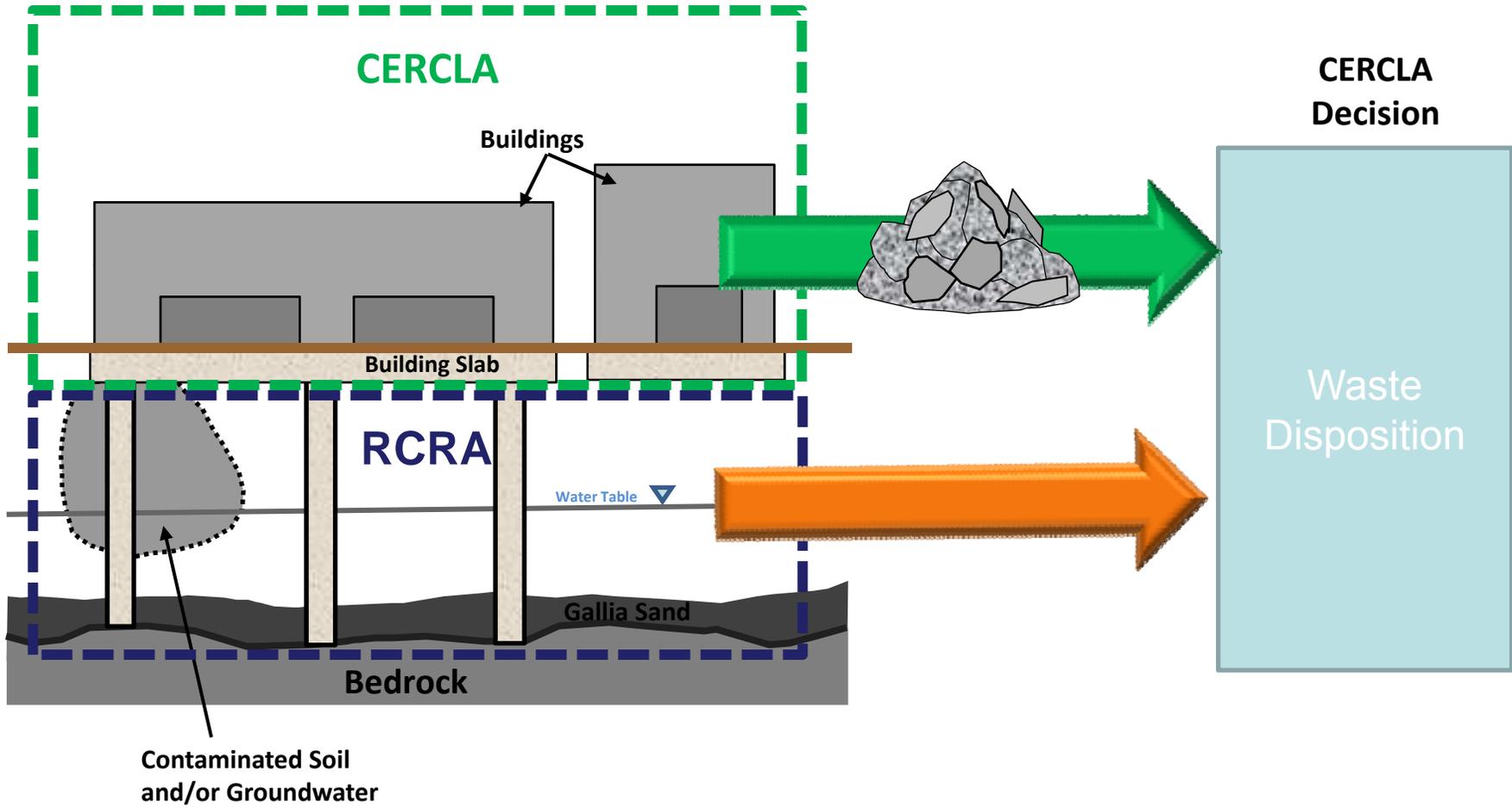
# Introduction / Purpose

- Explain the cleanup decisions that will be made at the PORTS site
- Explain how CERCLA will be used to make cleanup decisions
- Provide information to gain a preliminary understanding of the CERCLA process
- Discuss where and how the public stakeholders participate in this process





# PORTSMOUTH REGULATORY STRUCTURE





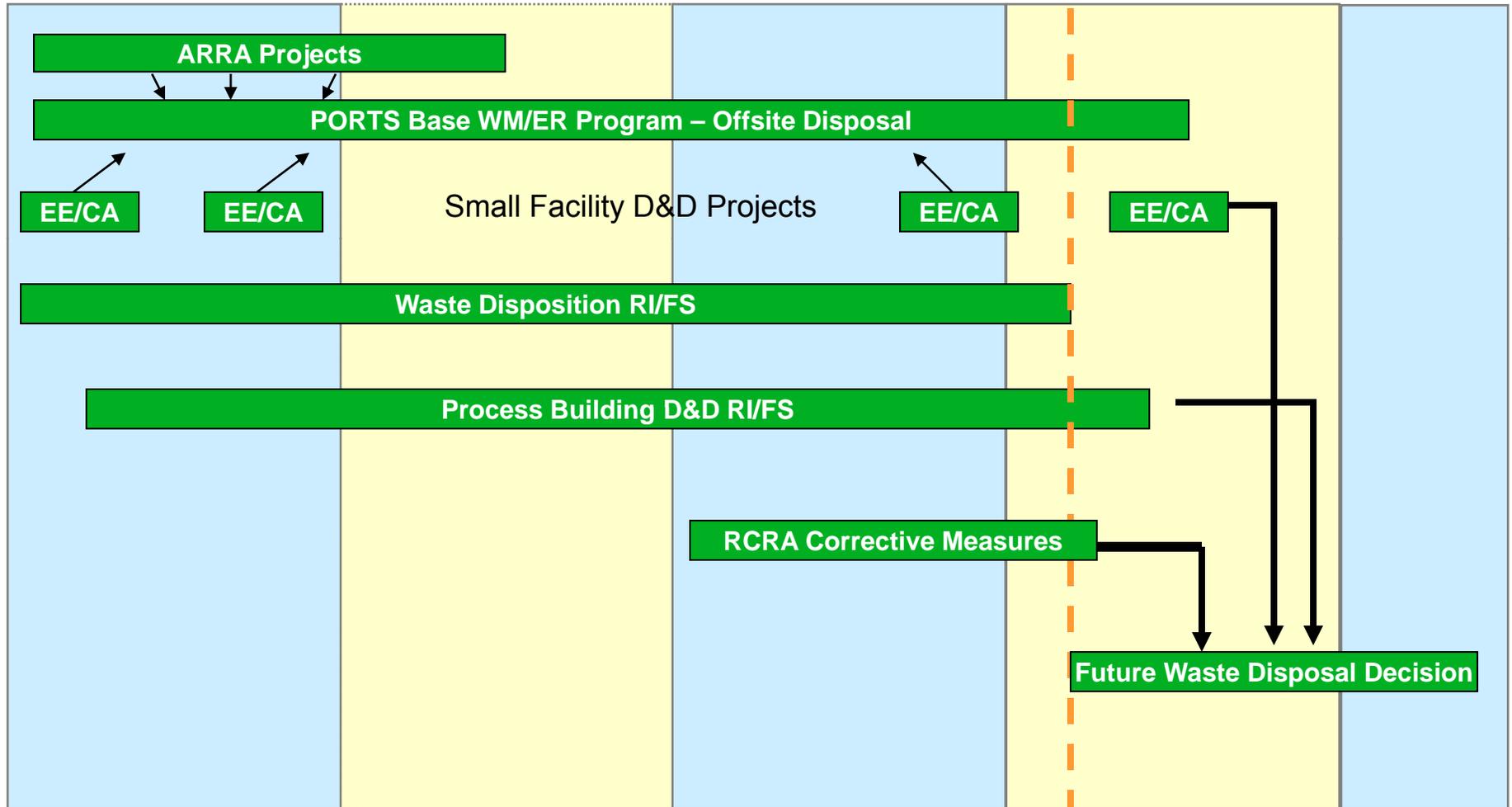
## What Decisions Must be Made at the Portsmouth Site?

- The Uranium enrichment facilities at Portsmouth are currently scheduled for decontamination and demolition (D&D)
- These facilities contain contaminated materials (chemical and radiological) based on process knowledge and characterization sampling
- Decisions must be made pertaining to:
  - (1) Whether or not to demolish the buildings, and
  - (2) If demolished, how to dispose of the waste
- DOE plans to follow the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) based on past experience for similar actions at other DOE sites





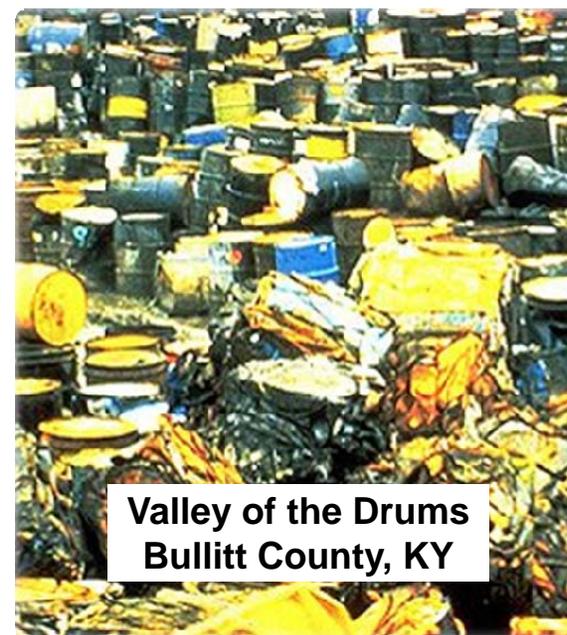
# PORTS CERCLA Approach





# What is CERCLA?

- **C**omprehensive **E**nvironmental **R**esponse, **C**ompensation, & **L**iability **A**ct (CERCLA):
  - 1980 federal law enacted in response to legacy environmental problems (e.g. Love Canal, NY; Times Beach, MO; Valley of the Drums, KY);
  - Federal authority to deal with threats to human health and the environment from hazardous substances or waste sites; and
  - CERCLA was designed to clean up hazardous waste sites not covered by other Federal regulations:
    - 1972 Clean Water Act (CWA)
    - 1976 Resource Conservation and Recovery Act (RCRA)



Valley of the Drums  
Bullitt County, KY

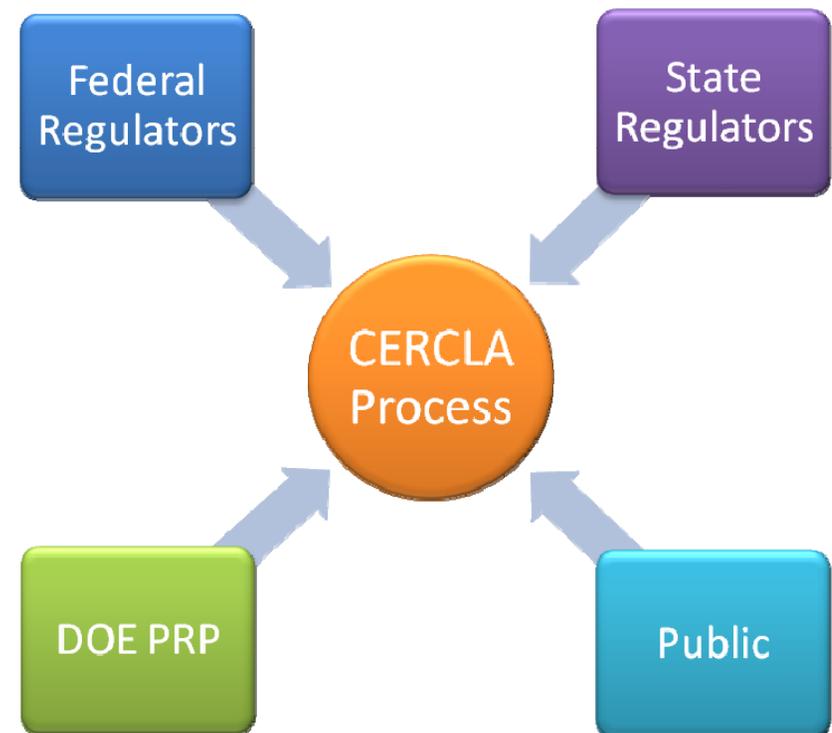
The National Oils & Hazardous Substance Pollution Contingency Plan (NCP) **is the regulation that implements CERCLA**



# What is CERCLA?

- CERCLA was amended in 1986 by the Superfund Amendments and Reauthorization Act (SARA) that strengthened and expanded the regulations:
  - Increased importance of permanent remedies and the use of treatment technologies
  - Incorporated other State and Federal regulations
  - Increased State involvement in the process
  - Increased focus on human health
  - Encouraged greater citizen participation in decision making

## Stakeholder Participation





# Who is Responsible for CERCLA?

- DOE, as the facility owner-operator, is responsible for implementing CERCLA
- Ohio Environmental Protection Agency (OEPA) is the lead regulatory agency for CERCLA
- U.S. Environmental Protection Agency (USEPA), Region V, supports OEPA in administering CERCLA regulatory oversight
- DOE employs contractors to implement CERCLA work at the Portsmouth Site
  - LATA/Parallax
  - RSI
  - Other contractors yet to be selected





## Where is the CERCLA Process Being Implemented at Portsmouth?

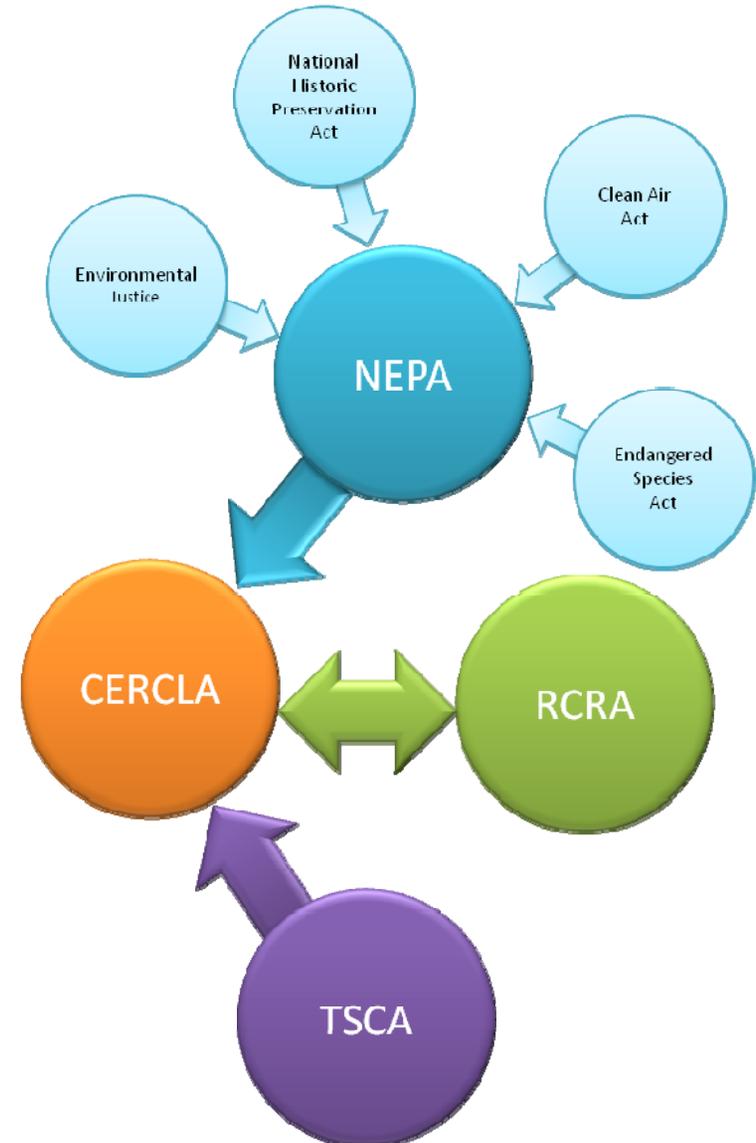
- The CERCLA process will be used to make decision on:
  - (1) decontamination and demolition of facilities
  - (2) disposition of demolition wastes from the uranium processing facilities at Portsmouth
- Environmental “Earth” Media (Soil, Sediment and Groundwater) at Portsmouth are being addressed under RCRA
- CERCLA and RCRA are roughly parallel processes with **a common goal to protect human health and the environment** from the release of hazardous substances





# Why is CERCLA Process being Implemented at Portsmouth?

- The CERCLA process must integrate other environmental regulations:
  - National Environmental Policy Act (NEPA)
    - National Historic Preservation Act
    - Endangered Species Act
  - RCRA
    - Regulations for waste generation, storage and disposal
  - Toxic Substances Control Act (TSCA)
    - PCBs
    - Asbestos

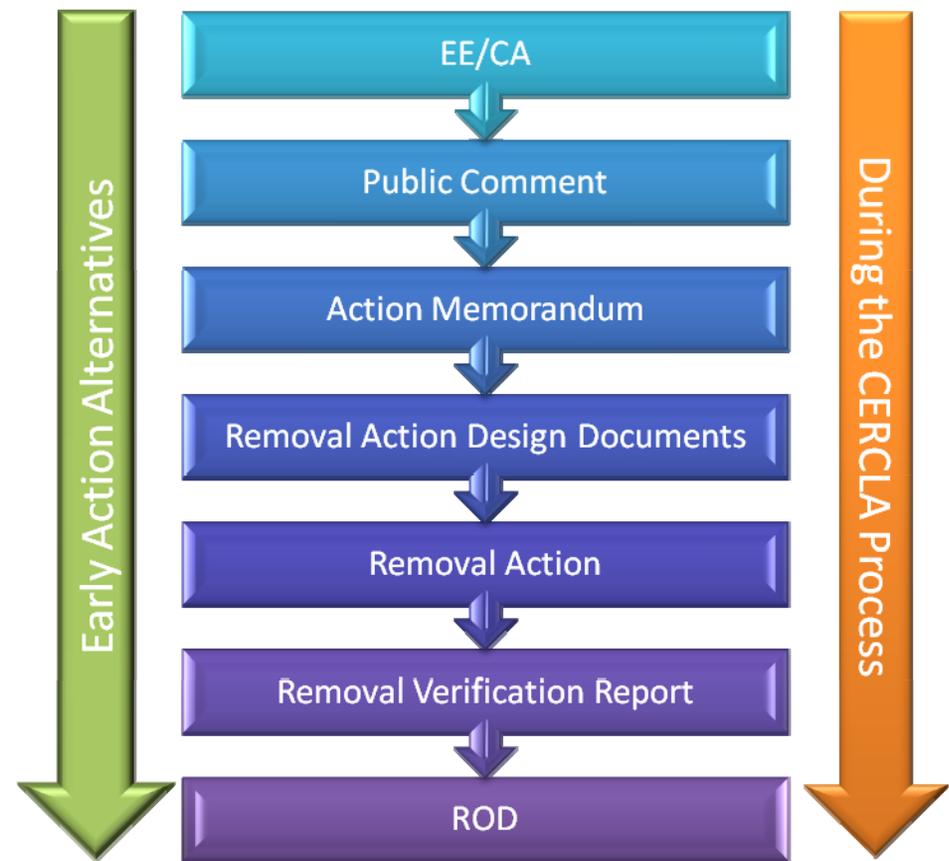




# What is DOE doing to Expedite the Cleanup of the Portsmouth Site?

- Non-time critical removal actions can be initiated early (prior to a ROD) in the CERCLA process
  - An Engineering Evaluation/Cost Analysis (EE/CA) is performed to evaluate the appropriateness of the proposed early action alternatives
- Proposed early action alternatives are put before the public for comment in an EE/CA that is followed by an Action Memorandum decision document that:
  - Determines the needs for the action,
  - Authorizes the action,
  - Identifies the action and clean up goals, and
  - Explains the rationale for the authorizes the early response action

## Early Action Removal/Remedy Process

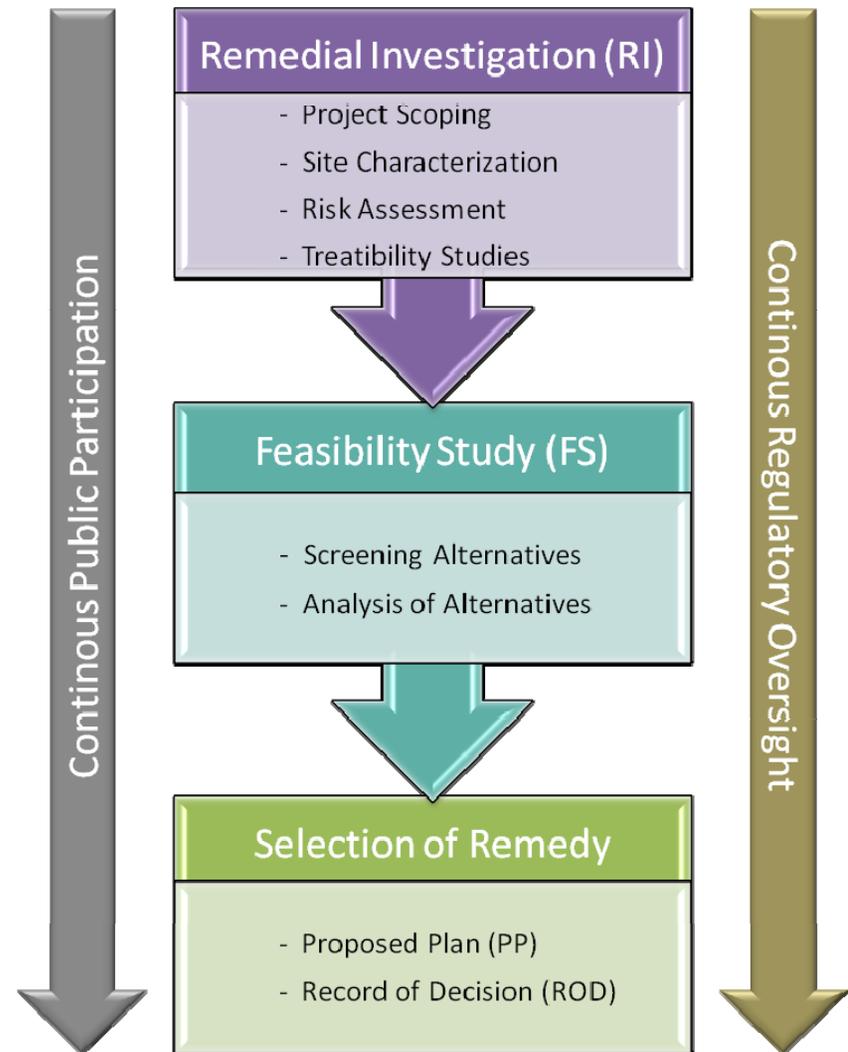




# Where is Portsmouth Currently in the CERCLA Process?

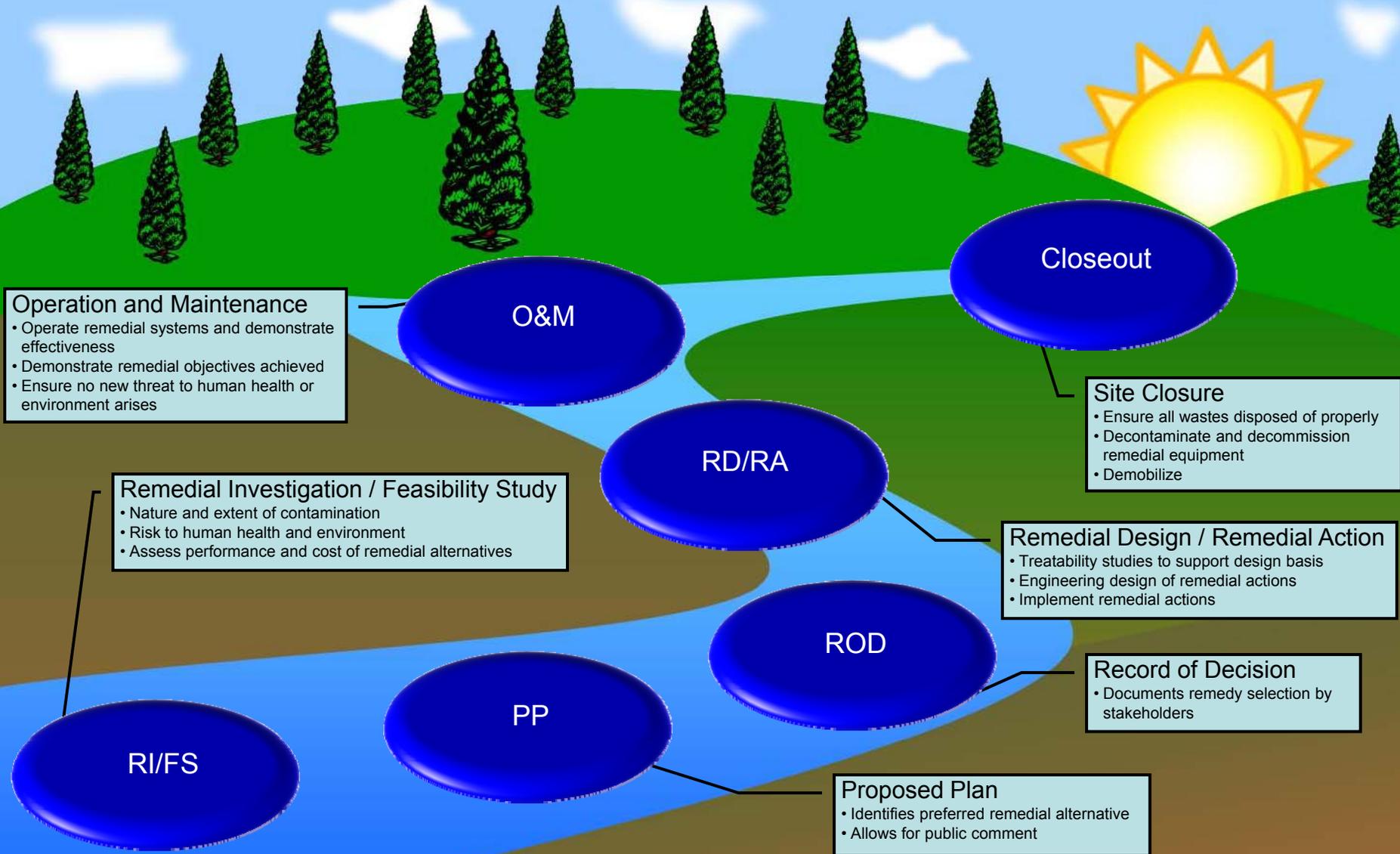
- DOE is currently planning the RI/FS process to make an integrated waste disposition decision:
  - (1) Determine the nature and extent of hazardous substances present;
  - (2) Assess risks to human health and the environment; and
  - (3) Evaluate alternative remedies for the disposition of the materials and contaminated wastes generated from D&D activities
- The results of the RI/FS will lead to the selection of a preferred remedy for D&D and waste disposition that will be presented to the public in a Proposed Plan
- A Record of Decision (ROD) will then be issued documenting the selected remedy

## CERCLA Decision Process





# CERCLA Process



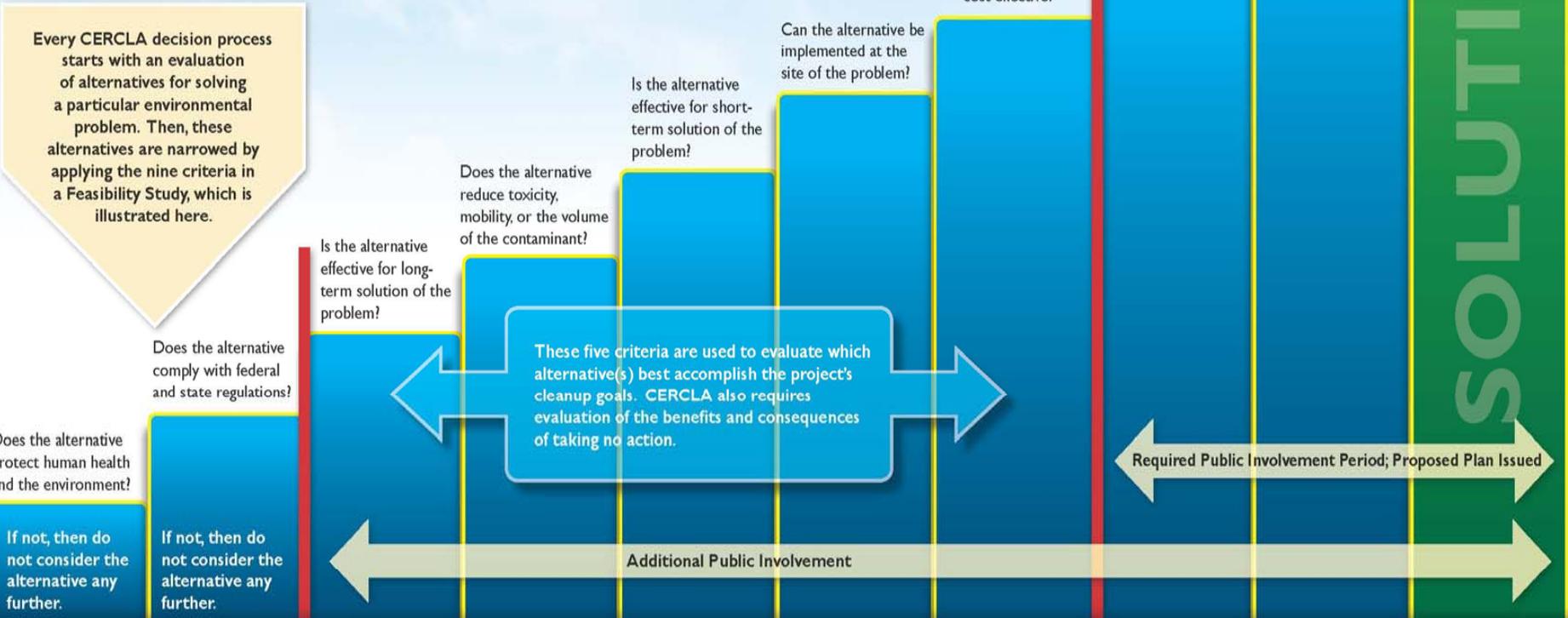
# What the Law Requires in Making Cleanup Decisions

## Before making cleanup decisions,

DOE must evaluate potential cleanup technologies against criteria spelled out in a federal law called CERCLA. There are nine criteria to be considered, which are divided into three categories.

**Threshold Criteria** determine if the possible solution to an environmental problem protects people and the environment and meets federal and state regulations. **Balancing Criteria** are used to determine which of the criteria meeting the Threshold Criteria will work the best. **Modifying Criteria** are used to determine if the recommended solution is acceptable to Ohio and the local community.

Select and implement the best solution.



Threshold Criteria

Balancing Criteria

Modifying Criteria



# How Does the Community Participate?

- Provisions for public participation as a “stakeholder” are embedded in the CERCLA process and required for ALL Records of Decisions (RODs)
- DOE Paducah/Portsmouth Project Office (PPPO) has provisions for public outreach:
  - Community Relations Plan (CRP)
  - Site-Specific Advisory Board (SSAB)
  - Public Meetings
  - Administrative Record
  - Document repositories
  - Web accessibility  
(<http://www.pppo.energy.gov/doe>)

The screenshot shows the website for the Portsmouth/Paducah Project Office. The header includes the U.S. Department of Energy logo and navigation links for Home, Paducah Site, and Portsmouth Site. The main content area is titled "Public Participation & Involvement Policies" and features a quote: "Public participation provides a means for the U.S. Department of Energy (DOE) to gather a diverse collection of opinions, perspectives, and values from the broadest spectrum of the public, enabling the Department to make more informed decisions. Public participation benefits stakeholders by creating an opportunity to provide input on decisions that affect their communities and our nation." Below the quote is a photo of a person at a public meeting and a link to "DOE's Public Participation and Community Relations Policy". The page also lists "Upcoming Meetings" for September 3 and 17, 2009, and provides contact information for the Portsmouth/Paducah Project Office: 1017 Majestic Drive, Suite 200, Lexington, KY 40513. Phone: (859) 219-4000, Fax: (859) 219-4098, helpdesk@emcb.doe.gov. The footer includes "Doing Business with DOE" links and logos for The White House, FIRSTGov, E-GOV, INFORMATION QUALITY, and FOIA.



# What is DOE Doing to Expedite the Cleanup of the Portsmouth Site?

- DOE is conducting early removal actions in the form of D&D of support facilities
  - Cooling towers
  - Electrical switch yard
  - Small buildings
- These D&D activities are being evaluated under CERCLA as EE/CAs
- The PORTS site has received increased cleanup funding from ARRA (Stimulus) and DOE operational budgets
- It is important that DOE demonstrate the ability to utilize the funding and show progress at the PORTS site
- These early removal actions are being conducted with the RI/FS studies in mind

## DOE Portsmouth Site EE/CA's

X-533 Switchyard Complex

X-633 Cooling Tower Complex

X-746 Material R&I Building

X-760 Chemical Engineering  
Building



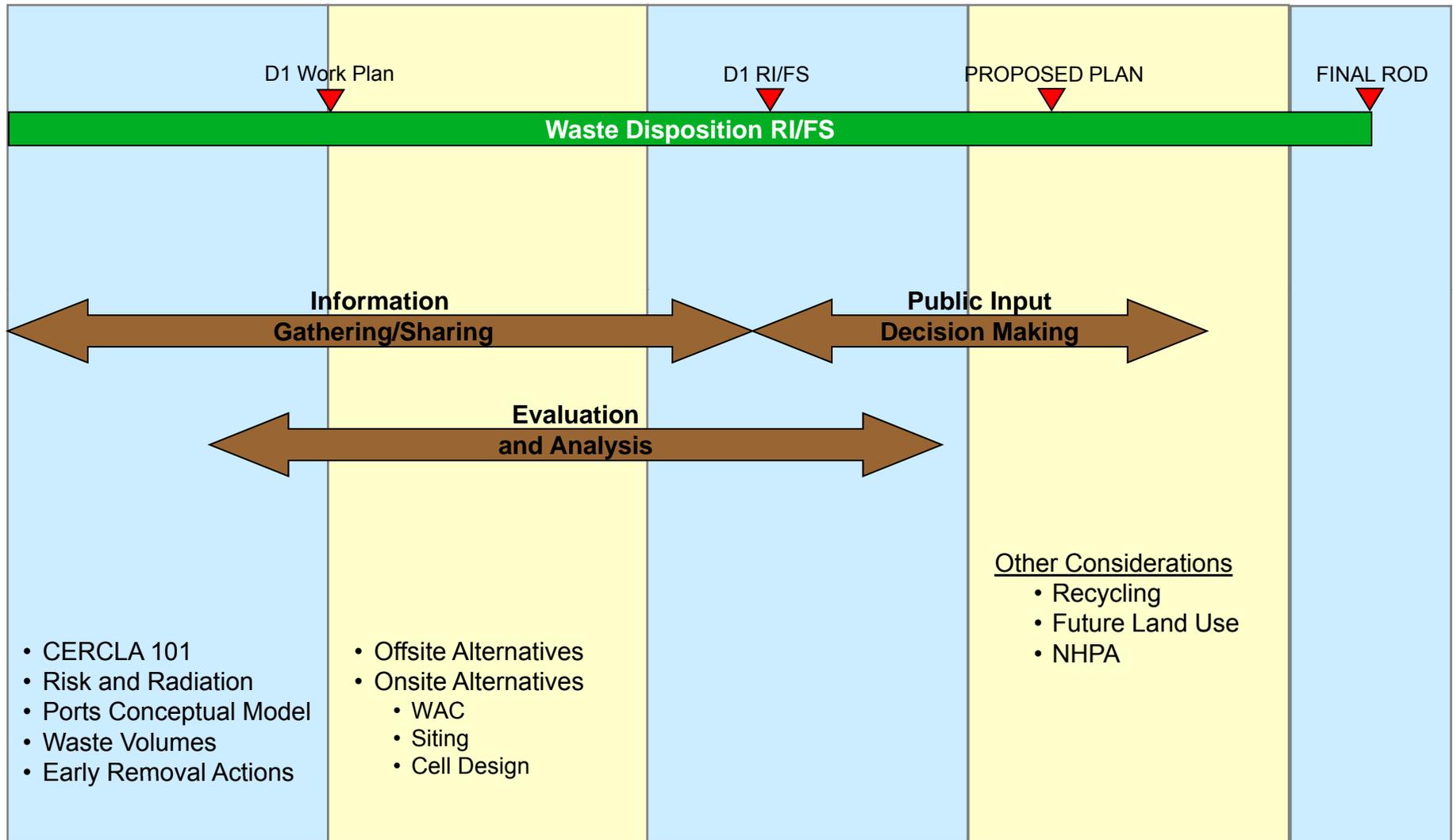
# Where has DOE done this before?

- DOE has vast experience in using the CERCLA process to make both D&D and Waste Disposition Decisions





# CERCLA Public Participation





# REFERENCES

---

- U.S. Environmental Protection Agency (USEPA) - CERCLA/Superfund Orientation Manual EPA/542/R-92/005, October 1992
- U.S. Department of Energy (DOE) Office of Nuclear safety and Environmental Assistance (HS-22) - CERCLA Remedial Action Site Closure Guidance (Draft)
- USEPA - Superfund Removal Guidance for Preparing Action Memoranda, September 2009
- DOE PPPO Website <http://www.pppo.energy.gov/doe>