



WASTE DISPOSITION  
OF PROCESS  
BUILDING  
DECONTAMINATION  
AND  
DECOMMISSIONING  
PROJECT ACTIVITIES

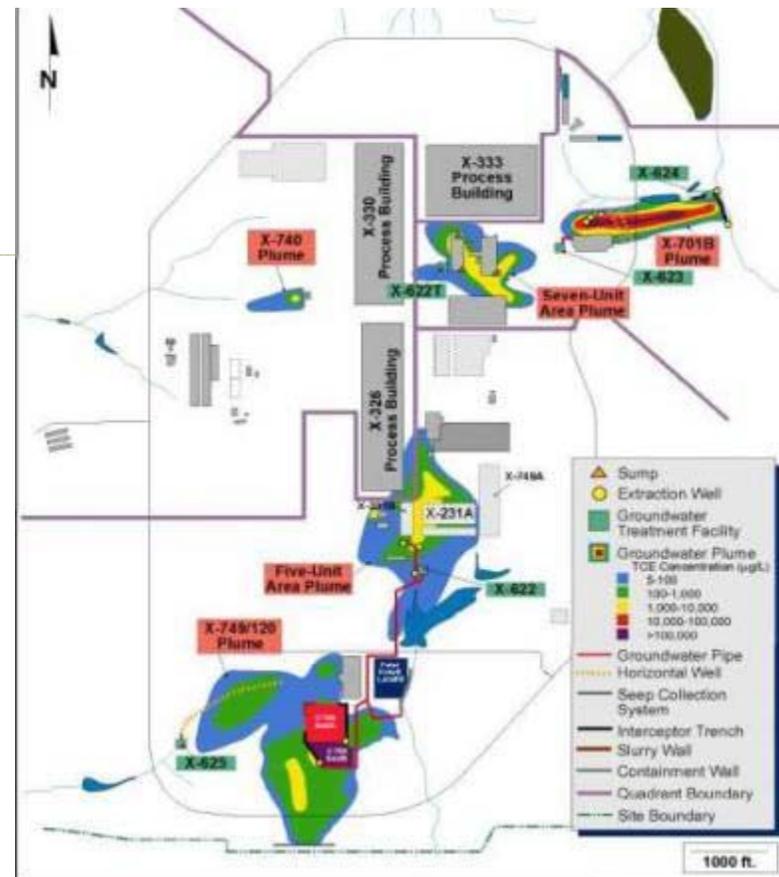
*DRAFT*

Recommendation 10-06

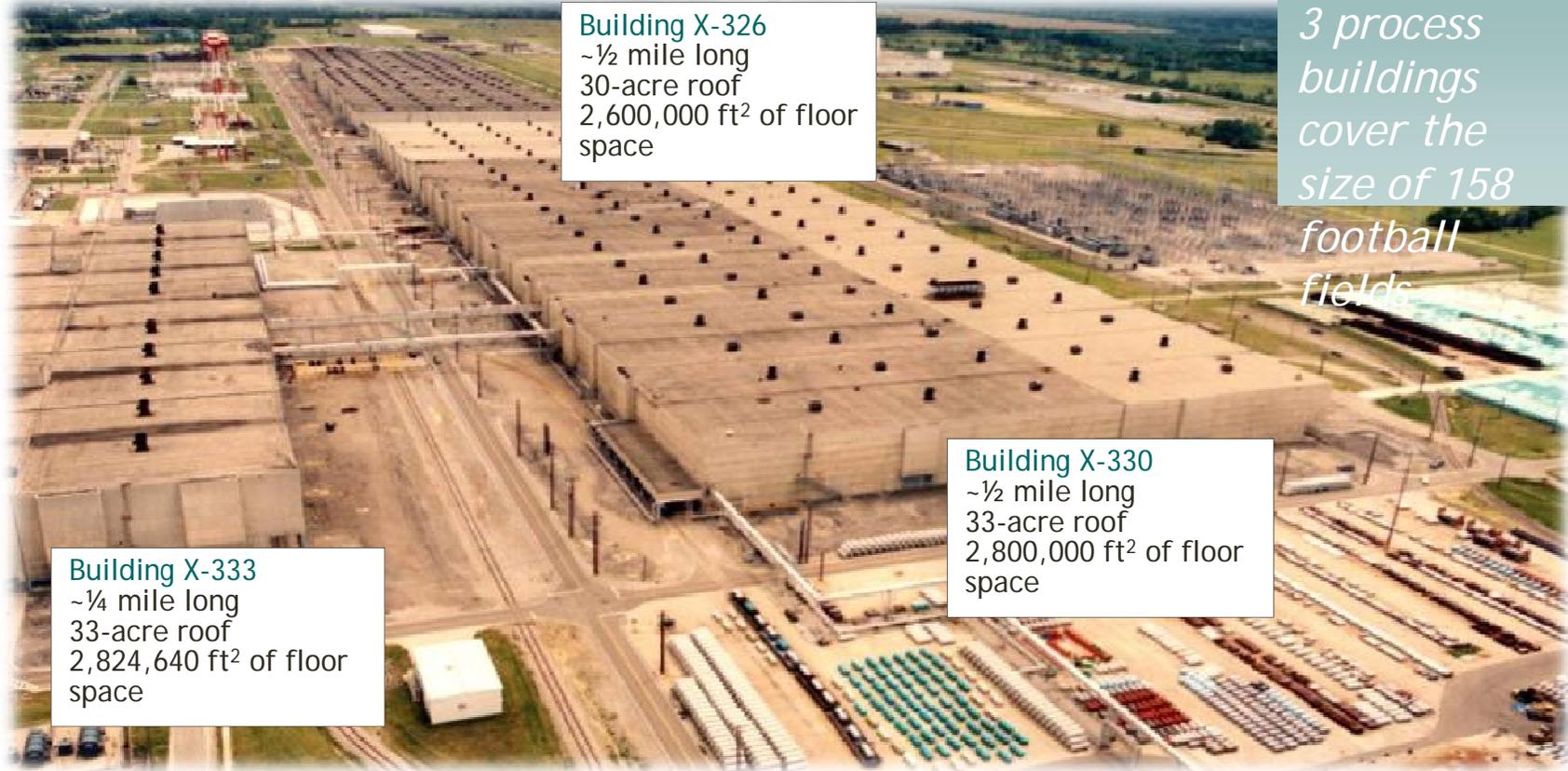
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# Ports Environmental Challenges

- Hundreds of contaminated facilities
- Contaminated process equipment
- ~2.2 M yd<sup>3</sup> of D&D waste
- ~0.6 M yd<sup>3</sup> contaminated environmental media
- Groundwater contamination



# Main Challenge: GDP Facility D&D



**Building X-326**  
~½ mile long  
30-acre roof  
2,600,000 ft<sup>2</sup> of floor space

*3 process buildings cover the size of 158 football fields*

**Building X-333**  
~¼ mile long  
33-acre roof  
2,824,640 ft<sup>2</sup> of floor space

**Building X-330**  
~½ mile long  
33-acre roof  
2,800,000 ft<sup>2</sup> of floor space

**The Waste Disposition Evaluation Project** will provide an integrated site-wide approach to waste management

# Waste Disposition Evaluation Project

## Summary and Approach:

- Identify CERCLA projects and their waste volumes
  - Low-end volume - 1.0 M yd<sup>3</sup>
  - High-end volume - 3.0 M yd<sup>3</sup>
- Develop waste disposition alternatives
- Evaluate and compare each waste disposition alternative
- Reach a CERCLA ROD



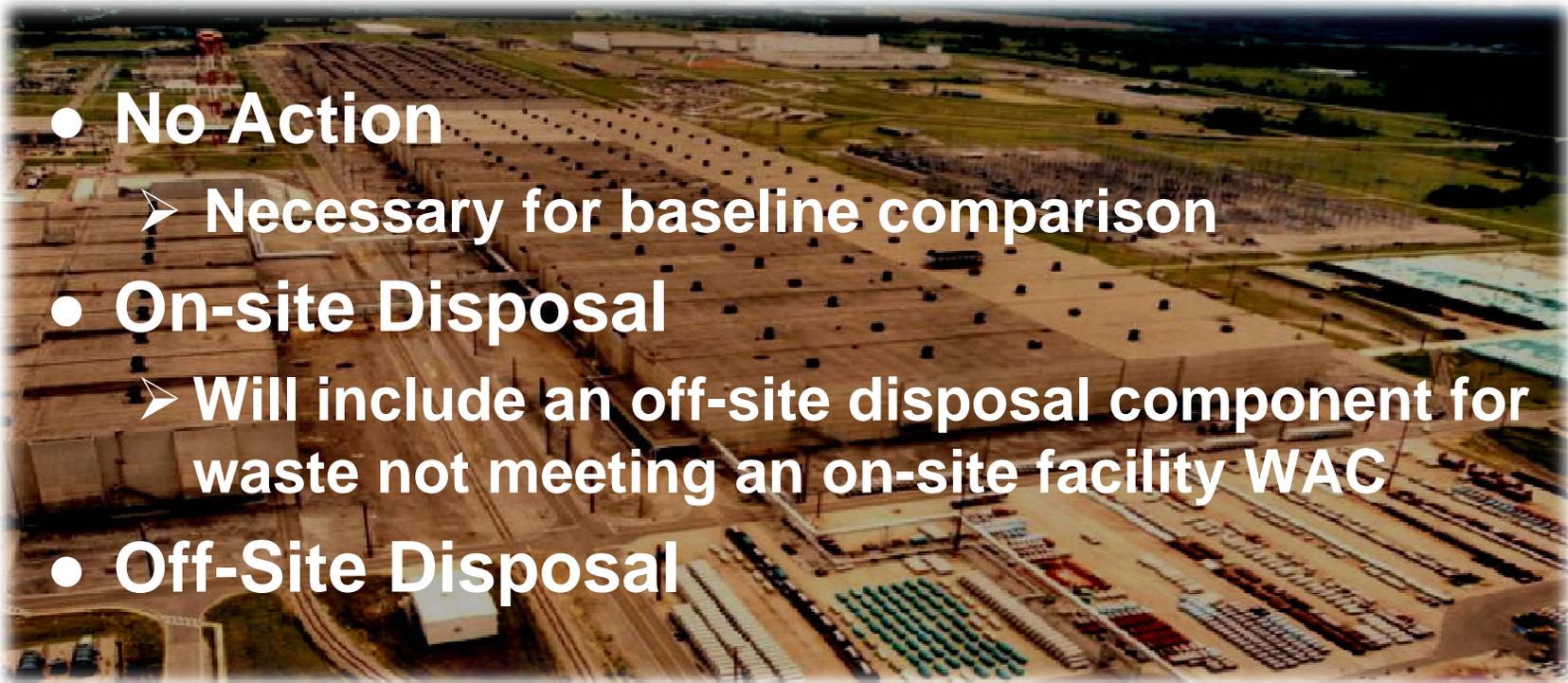
# CERCLA Process Implemented

- The CERCLA process will be used to make decisions on:
  - (1) D&D of facilities (e.g., X-326)
  - (2) Integrated disposition of wastes
- Contaminated environmental media (e.g., soil, sediment and groundwater) cleanup at Portsmouth is being addressed under RCRA
- CERCLA and RCRA are roughly parallel processes with a common goal to protect human health and the environment.



# Waste Disposition Alternatives

- **No Action**
  - Necessary for baseline comparison
- **On-site Disposal**
  - Will include an off-site disposal component for waste not meeting an on-site facility WAC
- **Off-Site Disposal**



# Waste Disposition Evaluation Project

## Status and Path Forward:

- ✓ Planning/preliminary analyses – FY 2010
- ✓ Project Initiation Meeting (PIM) – 5/25/10
- Pre-Investigation Evaluation Report (PER) – due 10/8/10
- Remedial Investigation/Feasibility Study (RI/FS) Work Plan
- RI/FS Report
- Proposed Plan
- ❖ Record of Decision (ROD)

# Discussions

- Several issues/ questions were discussed:
  - What's the status of a recycling program?
  - How valid is a waste minimization program?
  - Is it possible to remediate current landfills and include in lined cells?
  - Can the potential cell be built to look like exiting terrain?
  - Are multiple smaller cells as functional as one large disposal cell?
  - What contaminants will be disposed in the cell?
  - Can the overall footprint of landfills/ waste cells be reduced on site?

## Draft Recommendation 10-06

**RECOMMENDATION:** The DOE EM SSAB recommends that DOE continue to study waste disposition alternatives. As a part of this study, DOE should look at positive impacts of recycling and waste minimization. This study should include, but not be limited to: waste stabilization, recycling, metal smelting, compaction, and shredding as a means of minimizing waste volumes. In addition, DOE should investigate scenarios of creating multiple, smaller cells as an alternative to siting one large disposal facility. It is recommended that a cost comparison of all options be provided.