Building Reuse
Lessons Learned from ETTP

D&D Evaluation Subcommittee

May 10, 2011

Agenda

- Comparative overview of East Tennessee Technology Park (ETTP) vs. PORTS
- ETTP approach
- Lessons learned from ETTP
- Applications for PORTS
- Path forward for PORTS

Comparative Overview

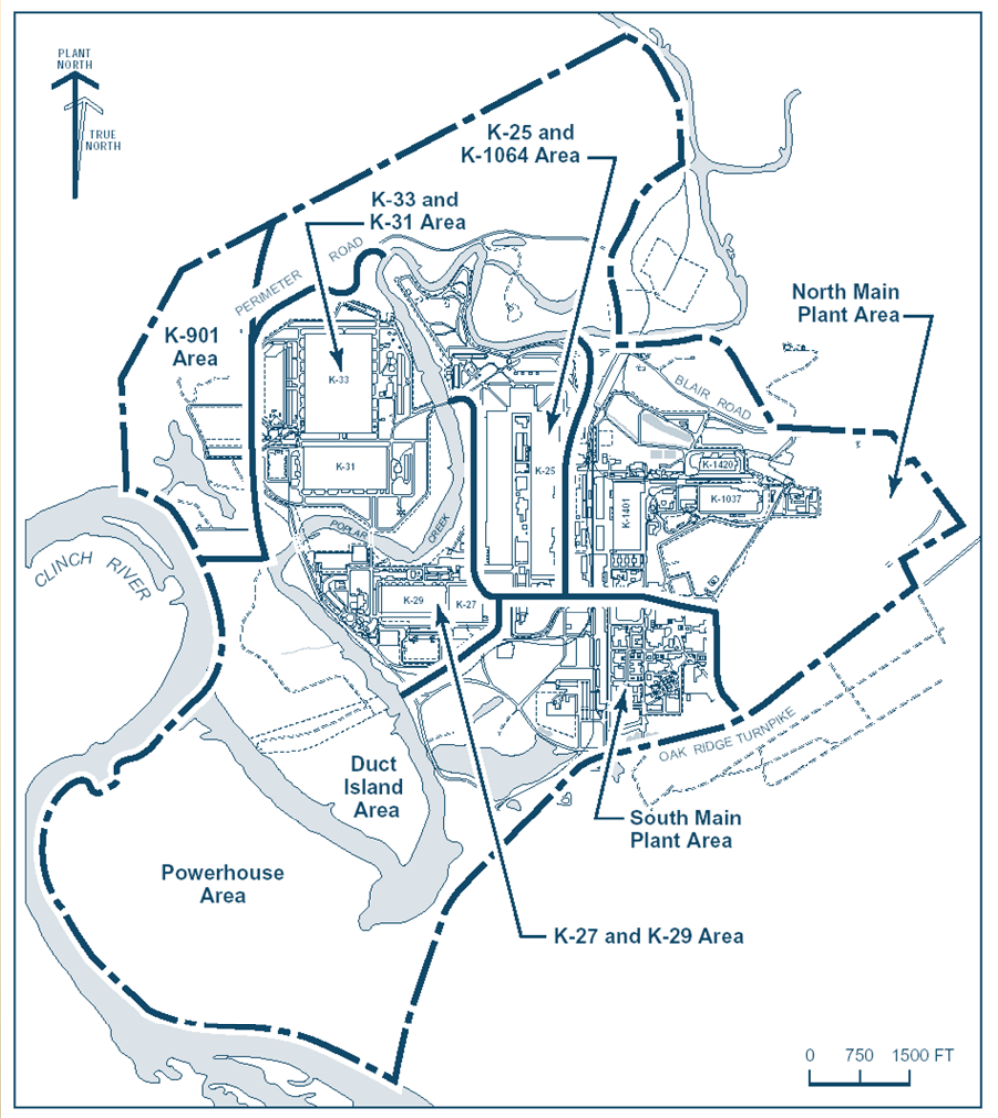
PORTS

- Construction initiated in 1952
- Plant operational in 1954
- Enrichment halted in 2001
- Cold standby halted in 2005
- Cold shutdown from 2005 to present
- Three process buildings
  - X-326= 30 acres
  - X-330 = 33 acres
  - X-333= 33 acres
- PORTS site = 3,777 acres

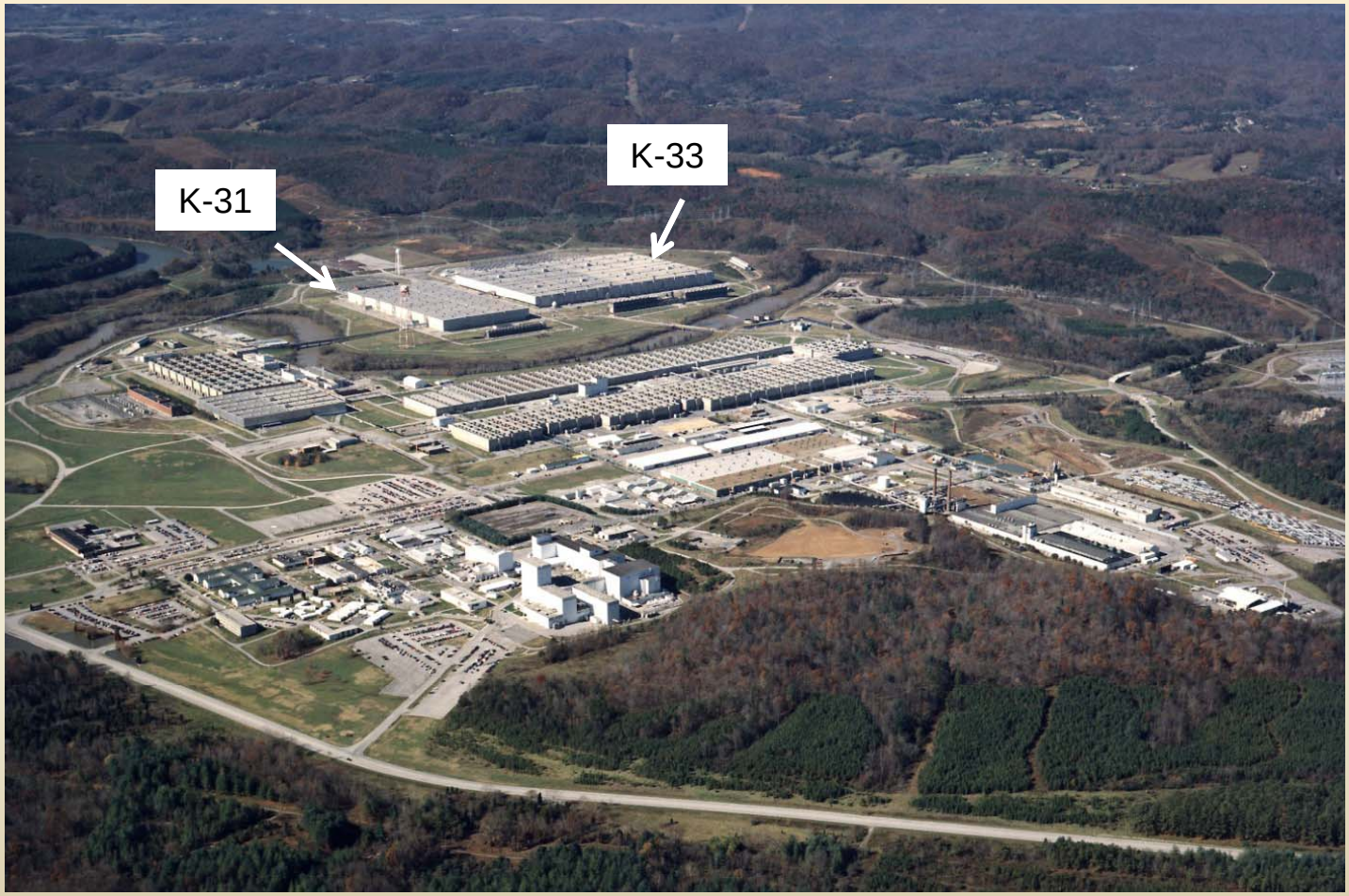
ETTP

- Construction initiated in 1943
- Plant operational in 1945
- Enrichment halted in 1985
- Partial plant (K-25 and K-27) shutdown in 1964
- Total plant shutdown in 1987
- Five process buildings
  - K-25 = 40 acres
  - K-27 = 9 acres
  - K-29 = 7 acres
  - K-31 = 17 acres
  - K-33 = 32 acres
- ETTP site = 1,500 acres
- Oak Ridge Reservation = 35,000 acres

ETTP Site Map



Aerial View of ETTP



Comparative Overview

PORTS

- Two-story construction
- Concrete slabs
- Cell floor (gaseous diffusion equipment) on upper level
- X-326 steel column and beam
- X-330 and X-333 steel beam concrete columns

ETTP

- Two-story construction
- Concrete slabs
- Cell floor on upper level
- Steel column and beam construction

ETTP Regional Setting

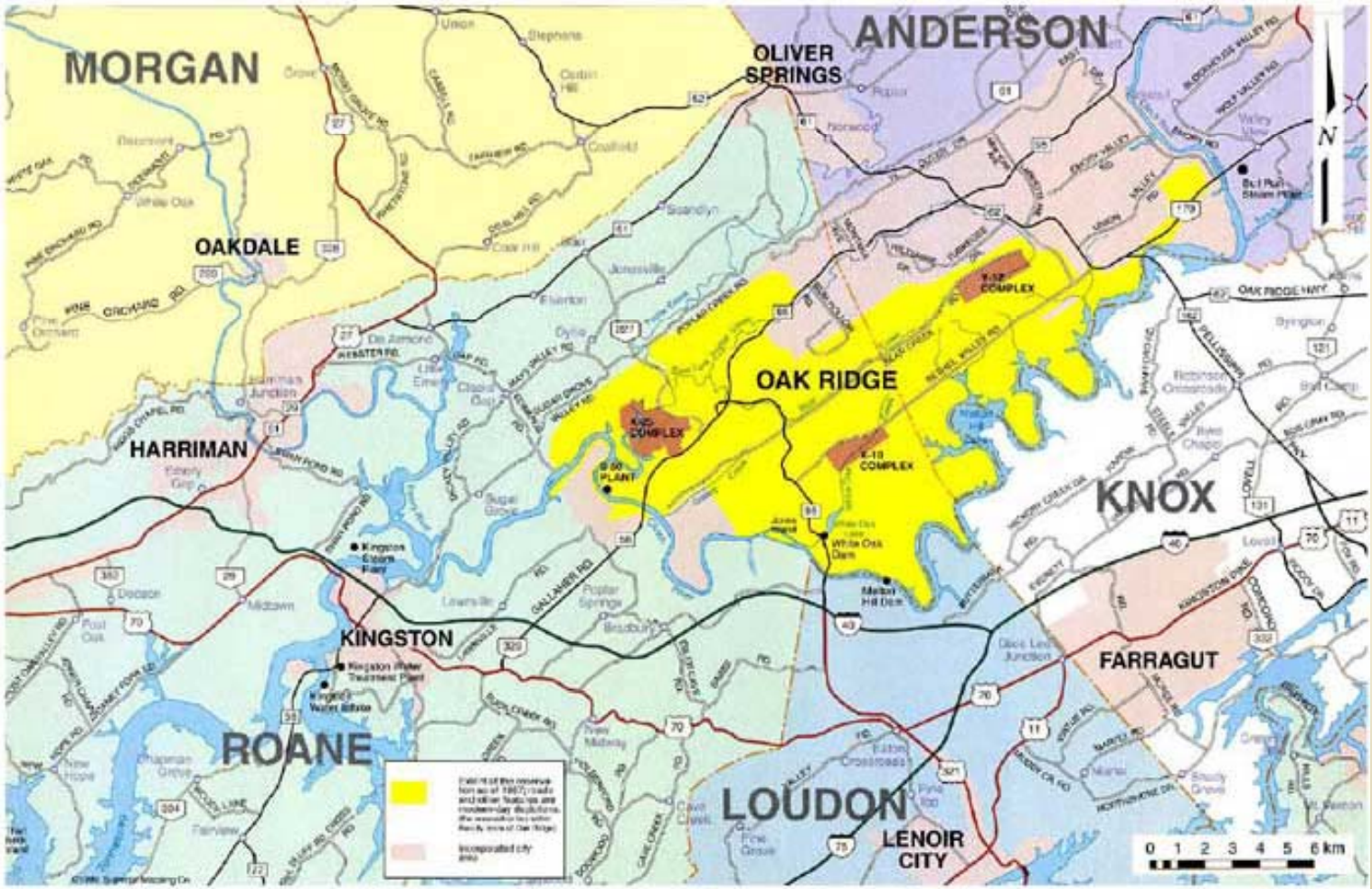


Figure 1: Location of the Oak Ridge Reservation

Regional Setting

PORTS

- 66 miles from Interstate I-64 and 67 miles from I-71
- On site rail spur
- Nearest barge capable river is Ohio River ~25 miles from site

ETTP

- 16 miles from I-75 and 6 miles from I-40
- On site rail spur
- Nearest barge capable river is Clinch River adjacent to site

ETTP Approach

- Only attempted to reuse two of the process buildings -- K-31 and K-33
- These buildings were in the best physical condition and easiest to decontaminate
- Removed all process equipment and performed radiological decontamination of floors and walls
- After no tenants were identified, D&D of K-33 was initiated in 2011

Post-Cleanout Interior

Lessons Learned

- PCB, not radiological contamination, was the risk driver for occupation
- PCB contamination of concrete was extensive and very difficult to remediate
- "Surgical removal" of equipment made D&D more expensive
- Even with active campaigning/recruitment, there was limited interest in reusing the process buildings
- Administrative buildings, support facilities, and warehouses are appropriate candidates for reuse; large, contaminated industrial buildings are problematic
- Subsurface contamination difficult to determine and unable to remediate if building remains; this also creates challenges with building reuse

PORTS Path Forward

- "Default" is D&D of buildings
- If beneficial reuse for a viable scenario is identified by a user, then reuse will be evaluated