

Integrated Facilities Disposition Program

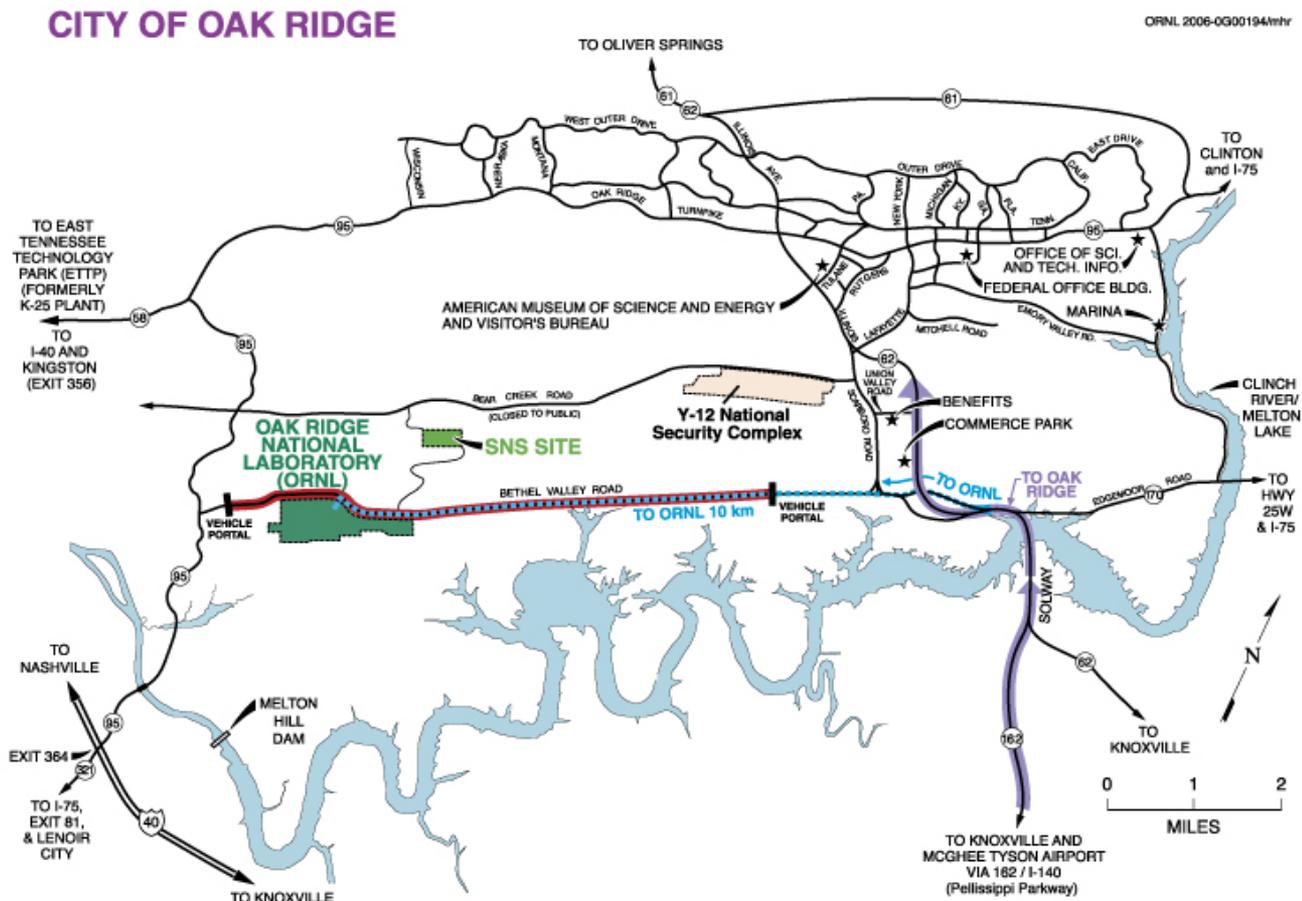
Tank Waste Corporate Board
Meeting at ORNL

Sharon Robinson
Dirk Van Hoesen
Robert Jubin
Brad Patton

July 29, 2009



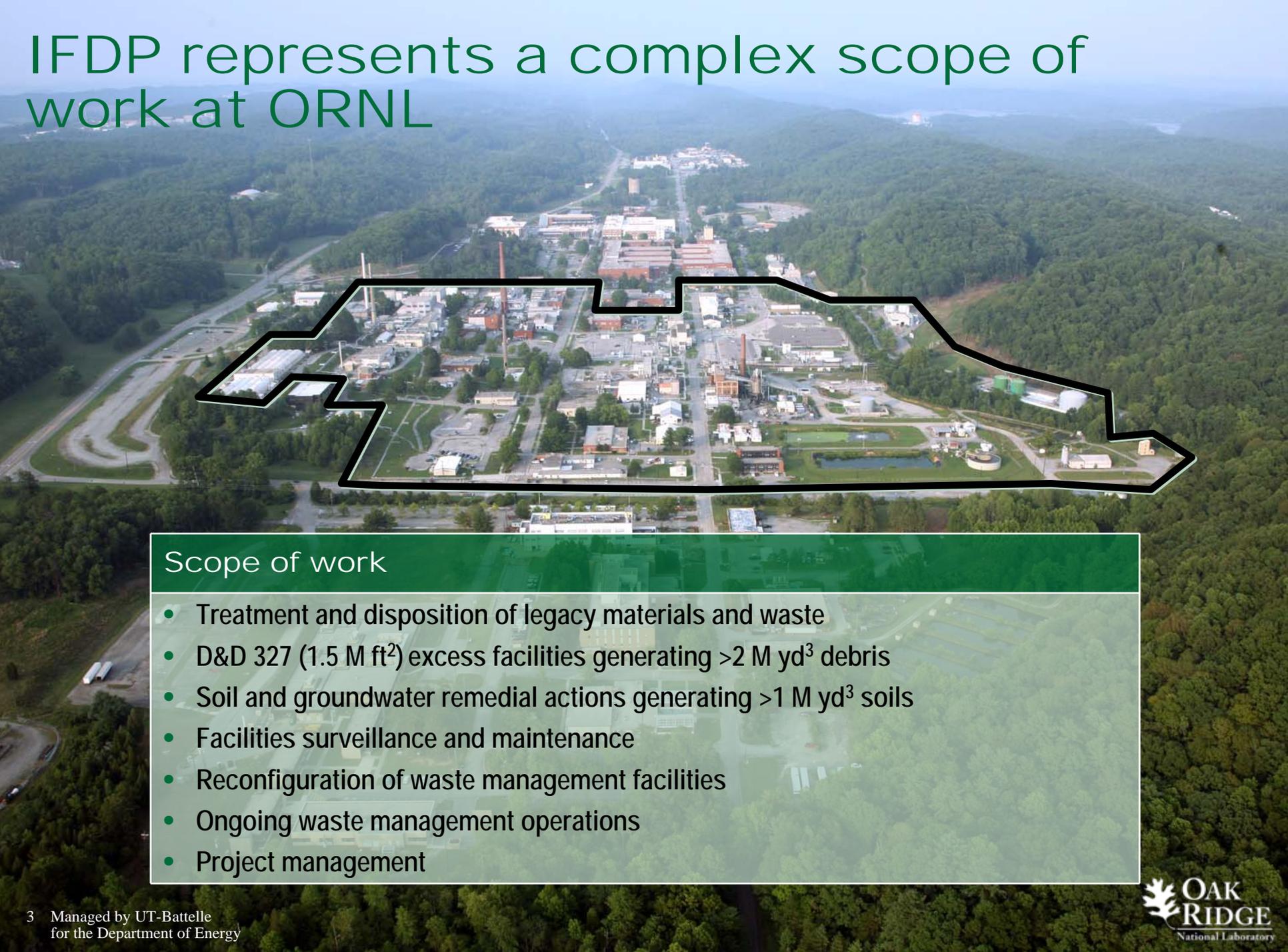
The Integrated Facility Disposition Program (IFDP) addresses the remaining EM Scope at both ORNL and Y-12



Cost Range: \$7 - \$14B

Schedule: 26 Years

IFDP represents a complex scope of work at ORNL

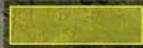


Scope of work

- Treatment and disposition of legacy materials and waste
- D&D 327 (1.5 M ft²) excess facilities generating >2 M yd³ debris
- Soil and groundwater remedial actions generating >1 M yd³ soils
- Facilities surveillance and maintenance
- Reconfiguration of waste management facilities
- Ongoing waste management operations
- Project management

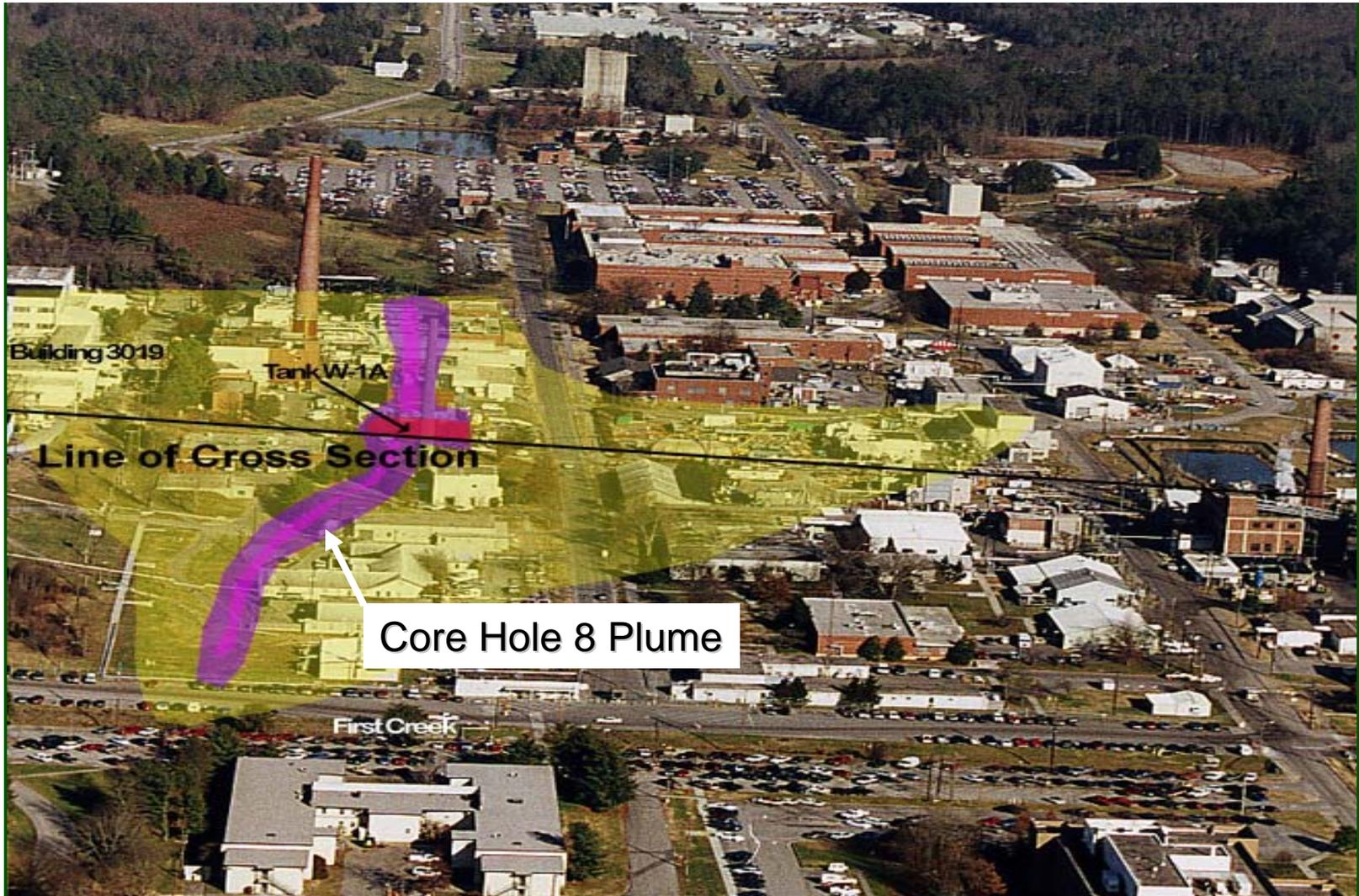
Plan remediates legacy facilities in Central Campus



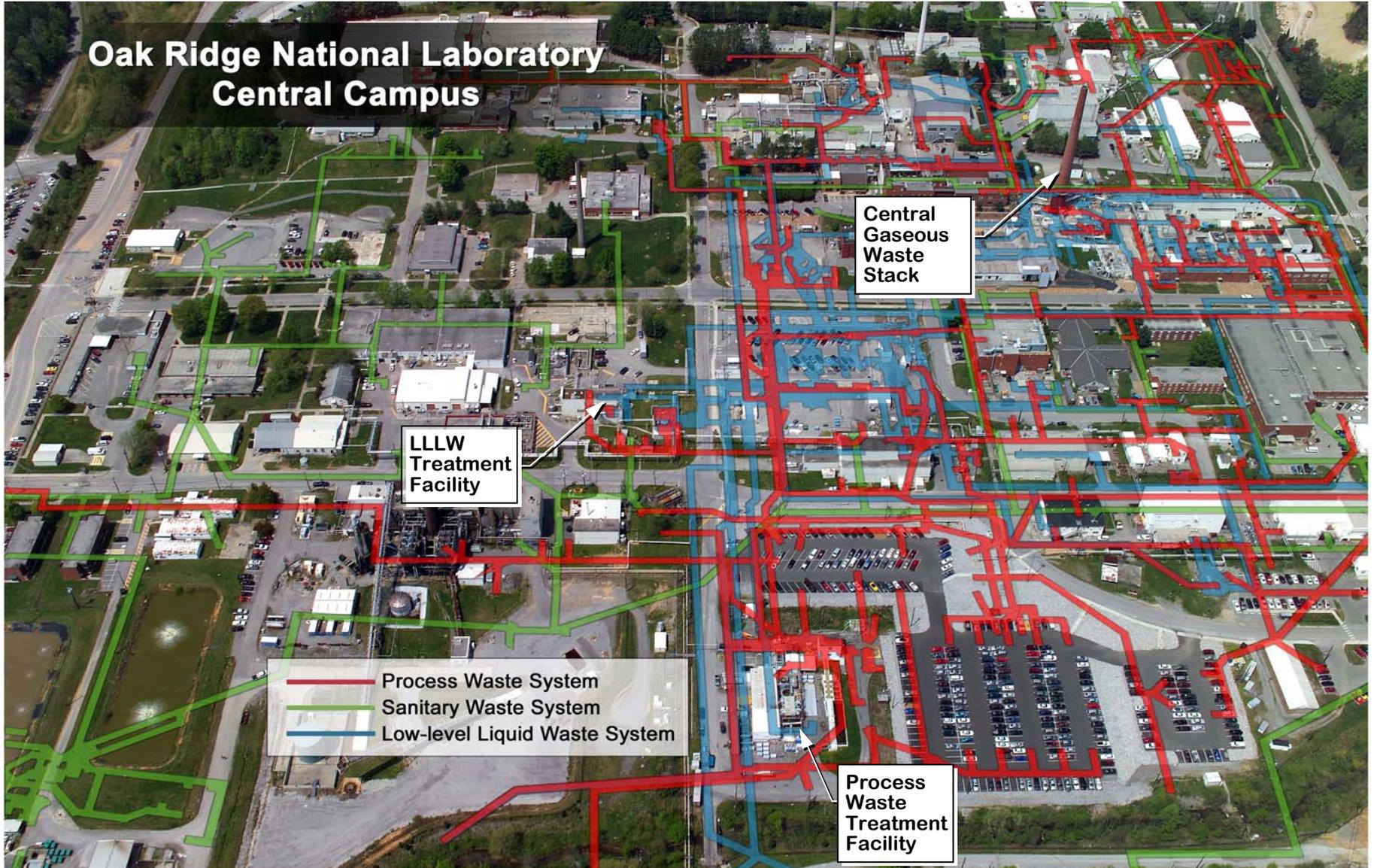
	EM
	SC
	NE

**Includes facilities that are currently excess and facilities projected to become excess over 10 years*

Remedial action will address a major groundwater plume in Central Campus



Remediating aging waste treatment and collection systems is an integral part of the Central Campus Closure

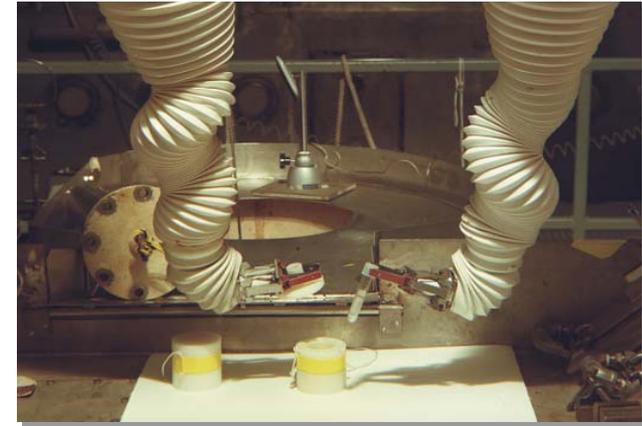
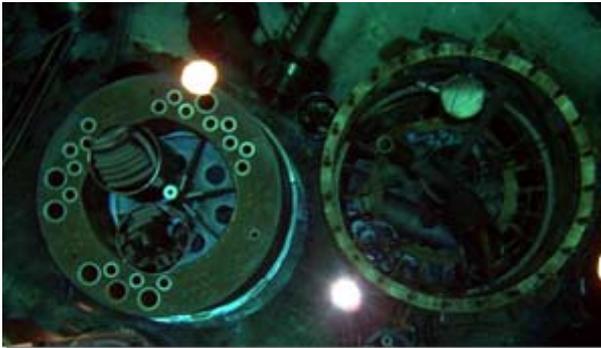


Processing of challenging materials requires new treatment capabilities

- High radiation levels
- Characterization
- Packaging
- Disposal



Materials with 26 M Ci will need to be processed



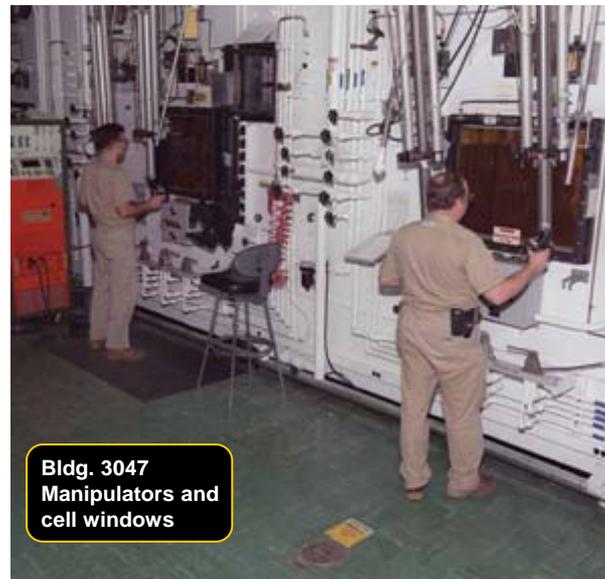
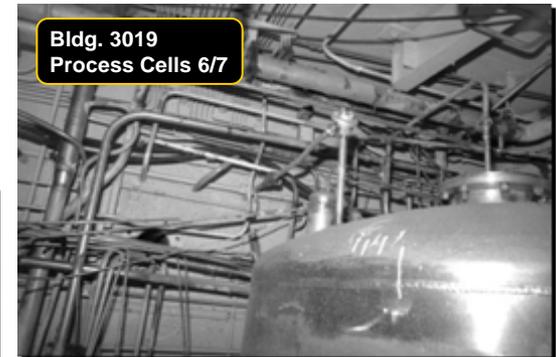
Examples of IFDP legacy materials

- RTG inventory – Sr activity
 - 700,000 Ci Sr-90 RTG – 5' x 5' x 4'
- Melton Valley inventory –
Size and weight
 - Concrete vault – 9' x 9' x 9' – 80,000 lbs
- De-inventory legacy waste –
Alpha activity
 - High alpha Am-Cm capsules
 - Activated metal – 5' x 5' x 6'
 - Control plates – 1,000,000 R
 - Beryllium reflectors – 4' x 2'
- Hot cell equipment/waste –
Size and radiation dose



IFDP RH hot cell waste

- 18 hot cell facilities to be D&D (129 hot cells)
- Total cell volume is ~200,000 ft³
- Radioisotope contamination levels vary from facility to facility but interior surfaces of all cells are above RH dose levels
- Manipulator cells contain RH equipment and solid debris
- Processing cells contain piping, valves, and vessels with solid and liquid heels
- Examples
 - 129 equipment items
 - 121 cell windows
 - 209 manipulators



IFDP Program Status and “Next Steps”

- CD-0 (Mission Need Approved July 20, 2007)
- CD-1 Approved: November 17, 2008
- ARRA Central Campus Cleanup: FY09 - FY11
- Develop CD-2/3A (Establish Performance Baseline and Begin Construction) package for HQ Approval: FY09 – FY10 timeframe
 - Rebaseline for ARRA
 - Alternatives evaluations will be needed to support value engineering requirements

