Oak Ridge Cleanup Prioritization Strategy Reducing Risk While Enabling Mission

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Oak Ridge Reservation Plant Sites



Surface Water is the Principal Contaminant Pathway of Concern – Environmental Impacts at Oak Ridge are Significant



Surface Water Integration Points



Regulatory Approach – Watershed Strategy

- Subdivide Oak Ridge Reservation into major watershed Records of Decision
- Establish overarching end use goals
- Establish overarching environmental goals for soil and surface water
- Sequence work on a Reservation-wide basis

Overall Prioritization Strategy

- Mitigate immediate offsite risks
- Reduce migration of contaminants offsite
- Control ongoing sources of onsite contamination
- Demolish legacy facilities
- Address remaining media (soil and groundwater)



Melton Valley Burial Grounds

 Completion of MV remedy resulted in rapid decreases in surface water contamination
250 Cesium-137
Annual Average Cs-137

2000

2002



2006

2008

2010

2012

2004

 Hydrologic isolation effectively suppressed normal rainfall-driven contaminant increases seen elsewhere on ORR





Y-12 National Security Complex



- Mercury in UEFPC is above performance goals at the site boundary; buildings must be demolished to address sources
- Large process buildings (Alpha 4 and 5 and Beta 4) must be demolished to access remaining sources of mercury

Oak Ridge National Laboratory





Oak Ridge National Laboratory

- Melton Valley (capped low-level waste burial grounds) has achieved surface water/soil/sediment ROD objectives
- High priority projects are being performed in Industrial parts of lab
 - Legacy material
 - Subsurface liquid low-level waste tank that is source of groundwater contamination
 - Radiologically contaminated excess facilities (including hot cells)







East Tennessee Technology Park



- 2,200 acre gaseous diffusion plant with no remaining mission
 - Cost @ \$70M/year
- Opportunity for future redevelopment
- Priority due to high maintenance cost and opportunity for development

Summary Points

- Significant progress being made on highest priority environmental challenges
- Early agreement on practical, cost-effective cleanup objectives decisions facilitates progress and prioritization efforts
- Prioritization of remaining work now considers multiple factors, including environmental benefits, mortgage reduction opportunity, and ongoing mission needs
- Significant work remains
 – particularly for legacy contamination issues at Oak Ridge National Laboratory and Y-12

