

*Department of Energy
Richland Operations Office
Agency Update*

Hanford Advisory Board

February 10, 2011

Nick Ceto

*Record of Decision Program Manager
DOE Richland Operations Office*



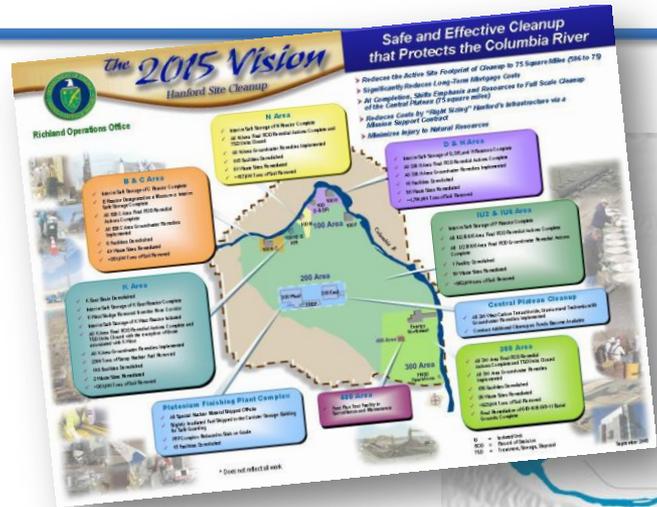
Complete Hanford Site 2015 Vision

Building on ARRA momentum, Richland Operations Office team will:

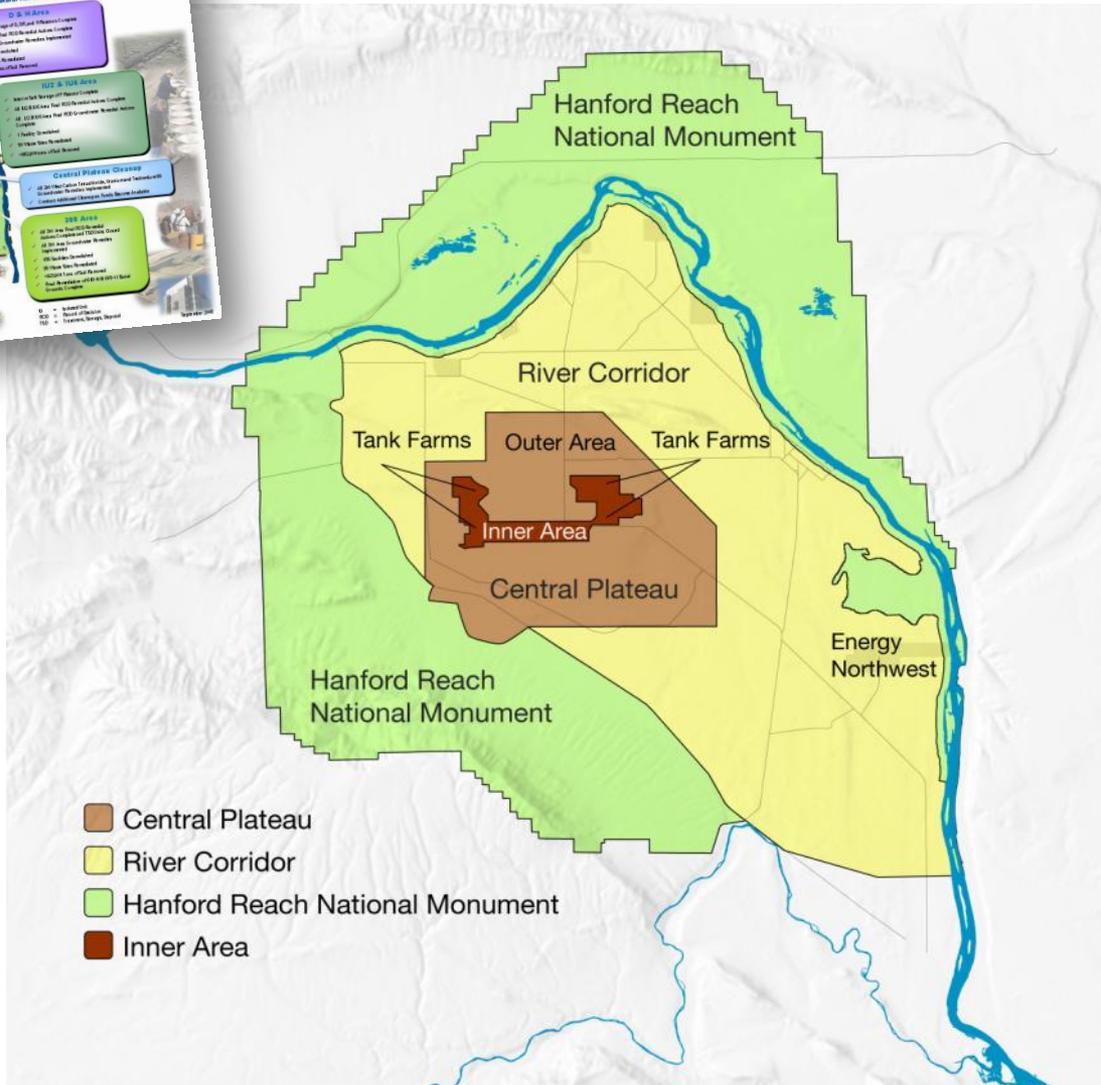
- ✓ Shrink the active cleanup footprint by 90% Hanford footprint reduced from 586 square miles to 75 square miles. Deactivate and demolish over 487 Buildings
- ✓ Protect the Columbia River Remove contaminated soil and solid waste adjacent to the river and stop key contaminants from entering the river
- ✓ Complete Clean Out and Demolish the Plutonium Finishing Plant Complex Deactivate and demolish over 80 facilities/structures. Eliminates the highest risk nuclear facility on the Hanford Site by the end of 2013.
- ✓ Contain key contaminants on the Central Plateau Install critical groundwater pump and treat systems by 2012, and operate them to contain key contaminants to the center portion of Hanford so they do not reach the Columbia River in the future.
- ✓ Disposition 90% of legacy TRU waste by 2015
 - Continue transuranic waste retrieval from underground storage, treating for disposal and shipping TRU waste to the Waste Isolation Pilot Plant
 - Retrieval of stored TRU waste is 66% complete (about 10,000 m3 out of 15,000 m3)
- ✓ Reduce Hanford Site infrastructure costs by 10% As a result of shrinking the active cleanup footprint, costs associated with infrastructure and site services are reduced by at least \$25 Million per year starting in FY 2015.



Hanford Cleanup Footprint Reduction



Four Areas of Cleanup



Hanford Reach National Monument



Upper Ale



Hanford Reach National Monument



Lower Ale

08-17-2009



11-23-2009



02-17-2010



04-19-2010



05-19-2010



10-27-2010



12-15-2010



Hanford Reach National Monument



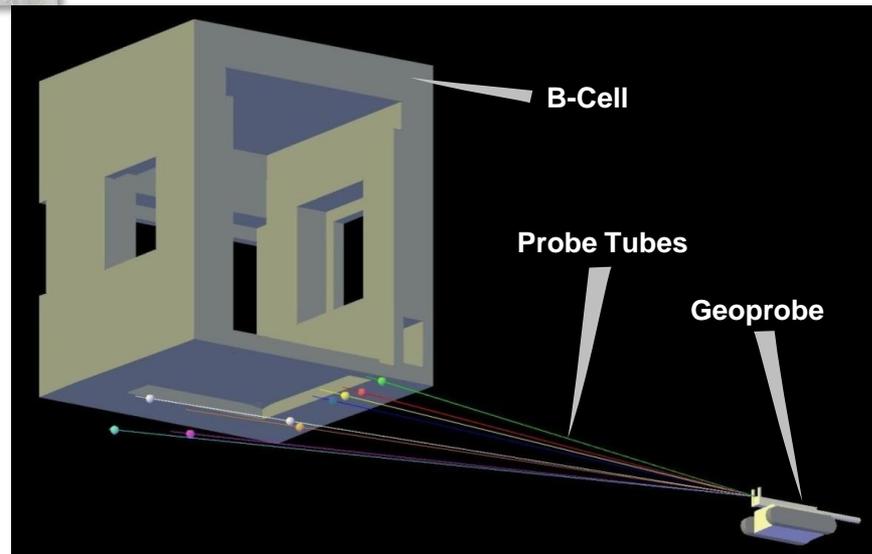
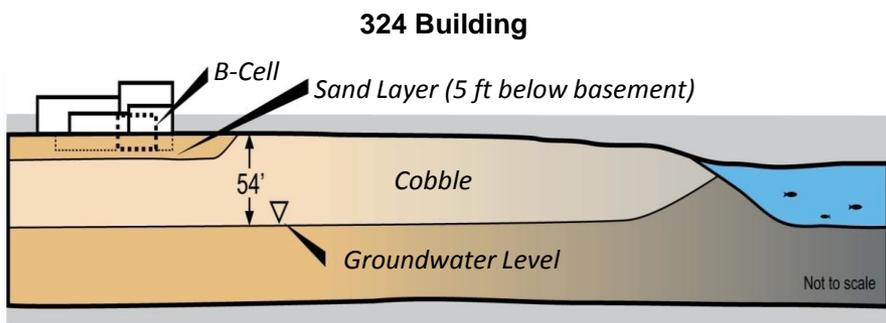
*North Slope
Debris Removal*



River Corridor – Progress Update



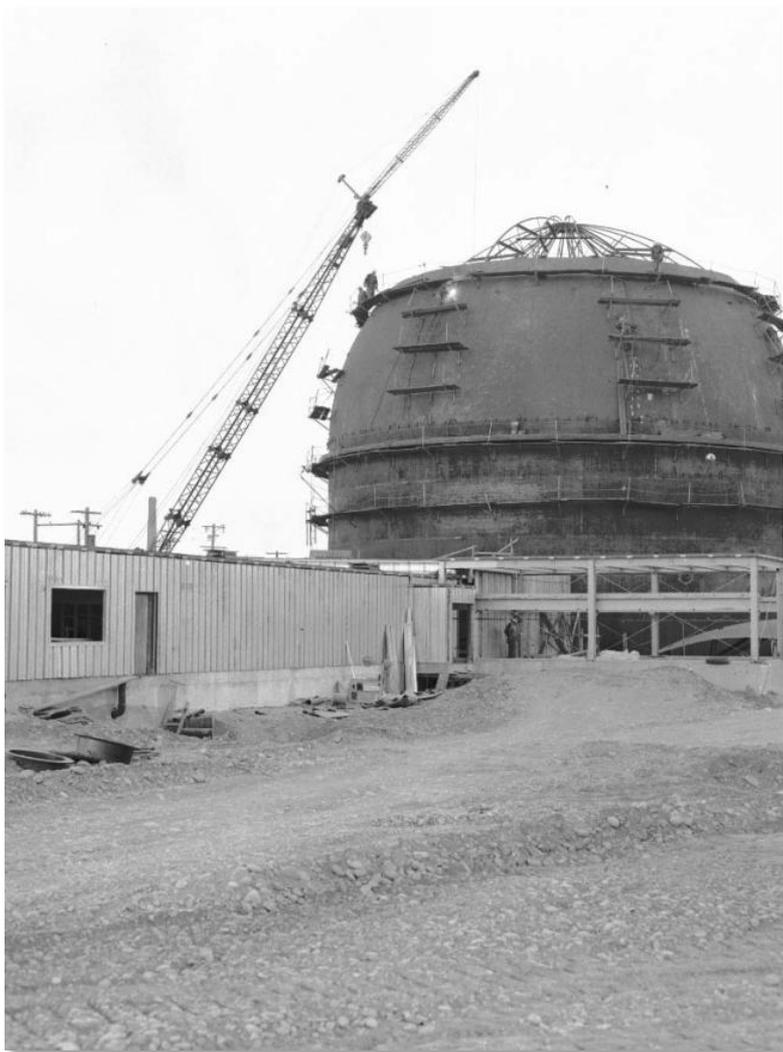
324 B-Cell Contamination



River Corridor – Progress Update



*Removal of the
309 Building
Dome*



River Corridor – Progress Update



618-10 Burial Ground



River Corridor – Progress Update



River Corridor – Progress Update



100 F Water Treatment Plant

100 F Pipe Sampling



River Corridor – Progress Update



10/19/2010



Groundwater Progress Update



DX Treatment Facility



HX Treatment Facility October 2010



DX Facility February 2011

River Corridor – Progress Update



Demolition of the 116 stack foundation and tunnel



Roof for the 109-N (Heat Exchanger Facility)

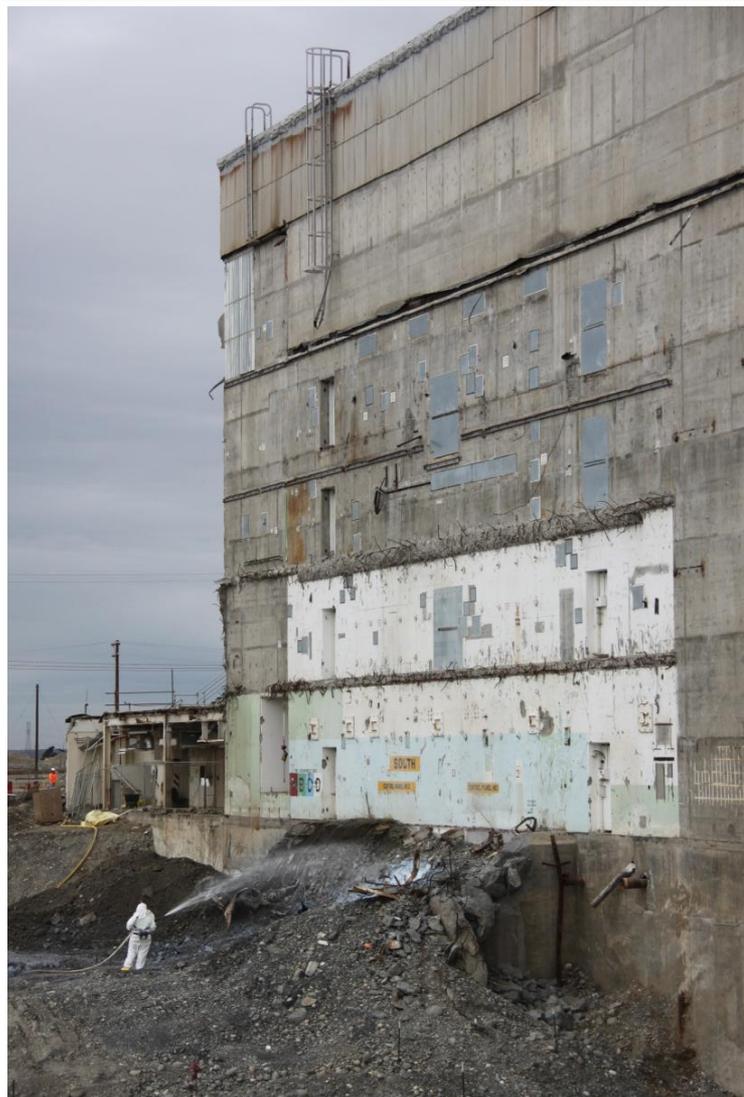


Demolition of N Reactor's fuel transfer bay building

River Corridor – Progress Update



105KE
Discharge
Chute



12/09/2010 03:35

River Corridor – Progress Update



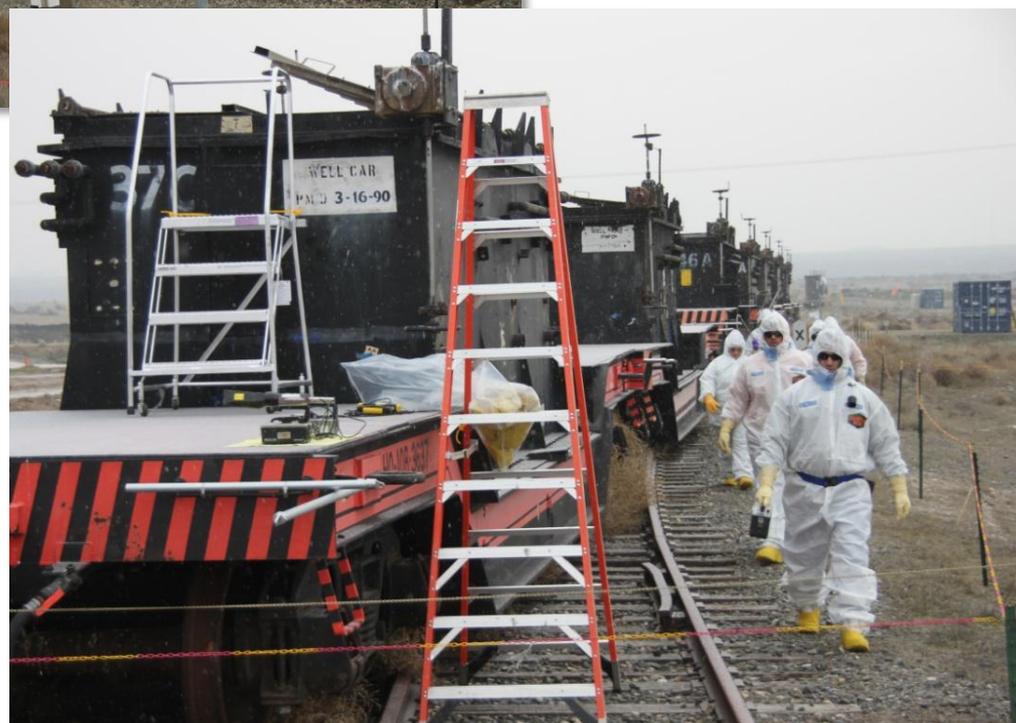
C-7 Excavation for Chrome



Central Plateau Outer Area



Central Plateau Outer Area



Central Plateau Inner Area Pump and Treat Facility - Progress



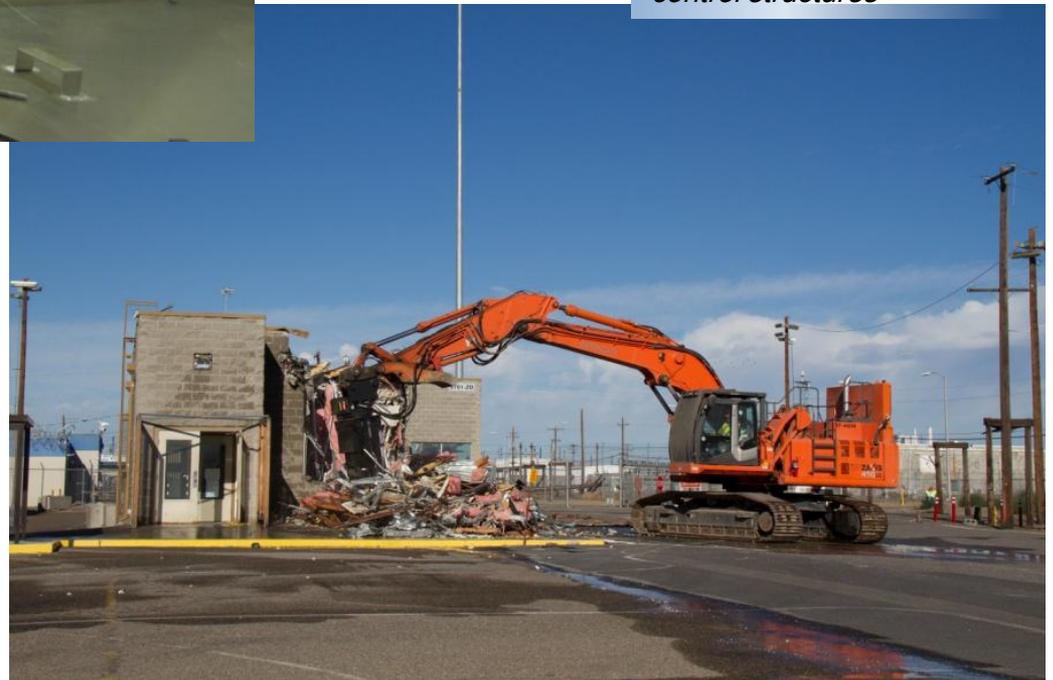
Central Plateau Inner Area Plutonium Finishing Plant



*Glovebox 149
from the PFP
for disposal as
TRU waste*



*Removed five access
control structures*



Central Plateau Inner Area Trench Cleanup



*Removal of a box
from Burial Ground
218-W-4B, Trench 11*



*Removal of
overburden
from Burial
Ground
218-E-12B,
Trench 17*



*Removal of a waste
container from Burial Ground,
218-W-3A, Trench 8*



*Excavation around boxes in Burial
Ground 218-W-3A, Trench 17*

Central Plateau – Progress Update



*Demolition of the
REDOX Water
Tower Tank*



Central Plateau Inner Area Environmental Restoration Disposal Facility



Central Plateau – Inner Area

Deep Vadose Zone Treatability Test

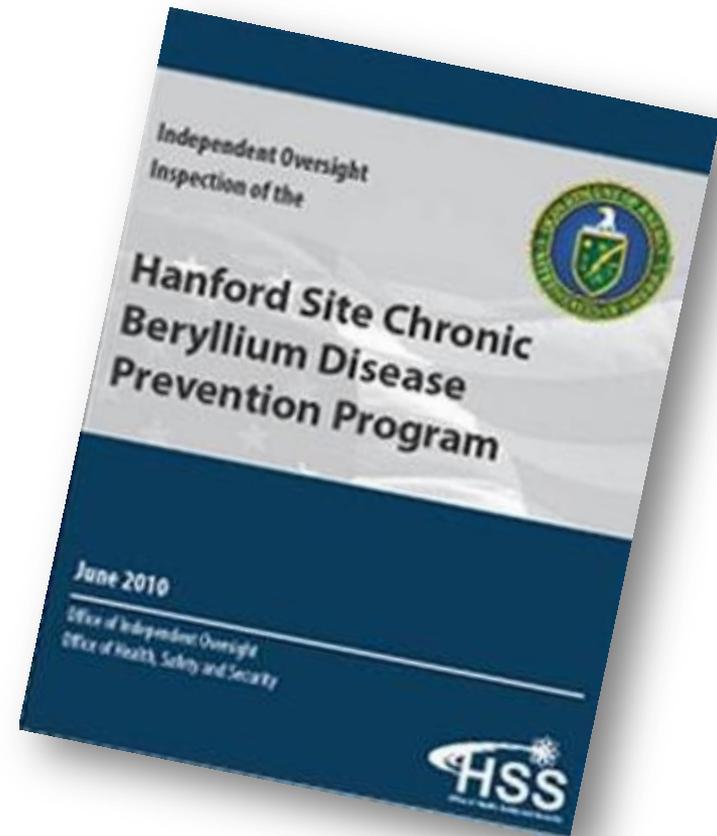


*Soil Desiccation Test
Injection Wells*



Beryllium CBDPP Corrective Action Plan (CAP) Status

- Virtually all 239 CAP actions are underway
- 184 (77%) actions were due for completion by January 5, 2011
- 110 actions (60%) are closed
- 74 actions remain open or have been returned to contractor for revision



Beryllium Success Factors

(In Priority Order)



- Develop and implement a best-in-class Hanford Site Chronic Beryllium Disease Prevention Program (CBDPP) to ensure worker protection
- Reach consensus with the Beryllium Awareness Group, Hanford Atomic Metal Trades Council, and Site Contractors on new Hanford Site CBDPP
- Complete CAP actions from the HSS Review on time

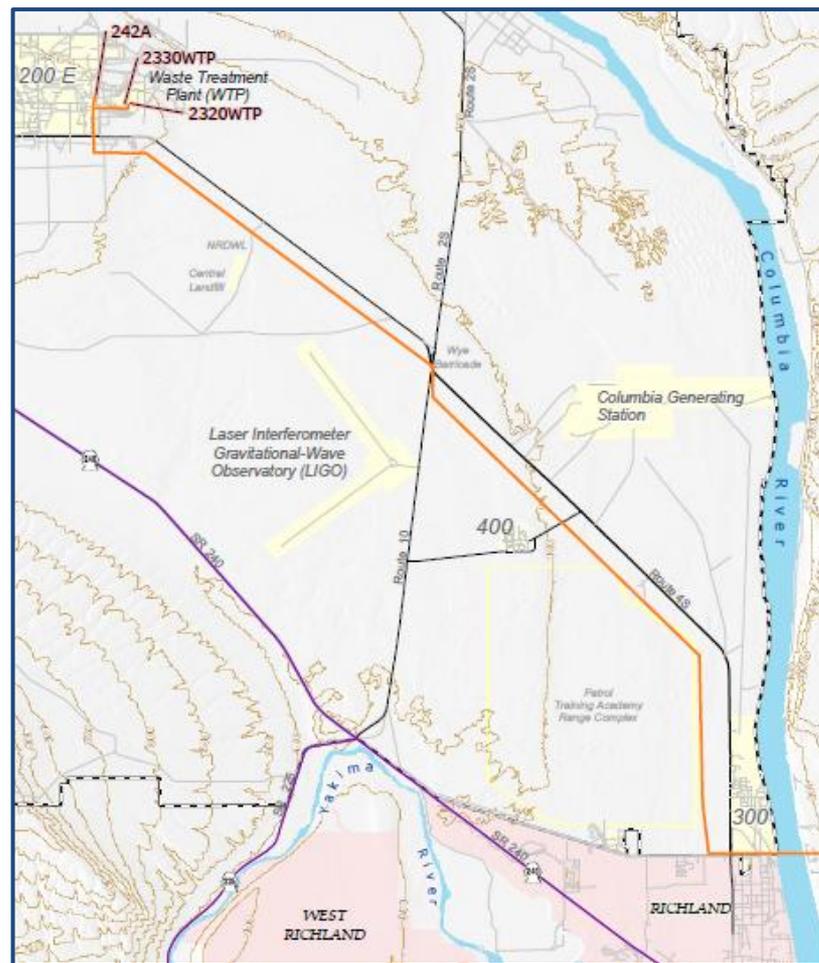
Natural Gas Line Proposal



- Boilers for Waste Treatment Plant and 242A currently designed for diesel fuel
- Projected diesel fuel for both facilities over lifecycle is 300 million gallons with 3.3 million tons greenhouse gas (GHG) emissions
- ORP and RL have decided to convert both facilities to dual fuel (natural gas + diesel backup)
- Reduces lifecycle operational costs for WTP and 242A Evaporator by ~\$527M - \$883M over 28 years

Benefits of Conversion to Natural Gas

- Reduces lifecycle GHG emissions by ~1 Million Metric Tons
- Increases traffic safety by eliminating 6 diesel tanker trucks/day
- Increases WTP and 242A Evaporator operations reliability by having dual (natural gas + diesel) fired boilers
- Increases support for additional low activity waste vitrification and/or steam reforming facilities
- Increases attractiveness of future land uses
- Facilitates conversion to gas-powered Hanford site fleet (further decreasing GHG emissions and increasing traffic safety)



Hanford's Post-Cleanup Future



New RL Senior Management Position will focus on:

- B Reactor National Historic Landmark - expand public access, work closely with the National Park Service on potential for inclusion in Manhattan Project National Historic Park
- Hanford's historic artifacts - preservation and availability for education/interpretation purposes
- Tribal Nations traditional cultural uses on cleaned up lands
- Interface with U.S. Fish and Wildlife Service on implementing Hanford Reach National Monument management plan
- Designated Industrial Use Areas - work with surrounding communities and others to identify economic development opportunities

Public Involvement/Outreach



- 2013 Budget Workshop
 - Wednesday, March 16, 2011
 - 9:00 a.m. – 4:00 p.m.
 - Richland Red Lion Hanford House
- State of the Site/Budget Meetings
 - 6:00 – 7:00 p.m. Open House
 - 7:00 – 9:30 p.m. Public Meeting
 - Tri-Cities: Wednesday, March 16th – Richland Red Lion Hanford House
 - Seattle: Tuesday, March 29th – Seattle Center, Olympic Room
 - Portland: Thursday, March 31st – Jantzen Beach Red Lion
- Hanford Story
 - New tool for education and outreach

HAB Membership Package



- Overall positive responses from Nominating Authorities, HAB members and nominees
- DOE Headquarters Office requesting additional information
- Please provide information as requested by morning of Feb 14
- Thanks for your support

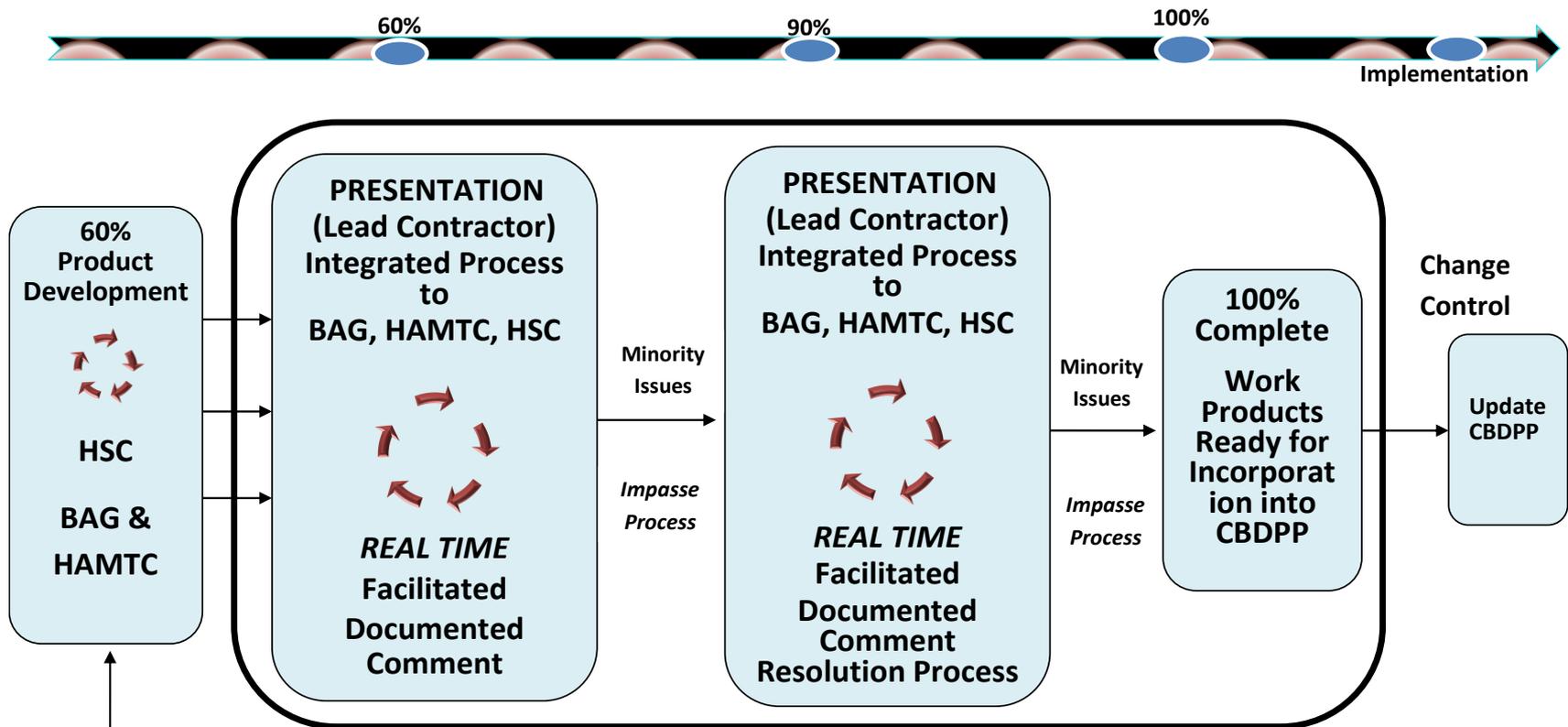
Hanford Advisory Board

BACK-UP SLIDES

Beryllium Corrective Action Program

New Systems Approach to Consensus

(Simplified Version)



Examples:

- Be Work Permit
- Facility Assessment
- Training
- Medical Monitoring

New Consensus Process

01/12/2011

Return on American Taxpayers' Investment at Richland

Key Cleanup Accomplishments

Cleanup Scope	Accomplishments to Date	By FY 2015
Hanford Active Cleanup Area		
Hanford Reserve National Monument	<ul style="list-style-type: none"> • 143 of 290 sq. miles remediated • 21 of 21 structures demolished • 497 of 1,102 Debris Sites remediated 	<p>>90% Hanford Site Footprint Reduction by 2015 (530 of 586 sq miles)</p> <ul style="list-style-type: none"> - Remediated Hanford Reserve National Monument – 290 sq miles - Remediated River Corridor Area - 220 sq miles - Remediated 20 sq. miles of Central Plateau Outer Area
River Corridor Area	<ul style="list-style-type: none"> • 60 of 220 sq miles remediated • 221 of 522 buildings demolished • 509 of 798 waste sites remediated • 10.3 of 16.8 M tons of contaminated soil and solid waste transported, treated and disposed at ERDF 	<p>100% Complete River Corridor Cleanup</p> <ul style="list-style-type: none"> - Completes demolition of 522 buildings - Remediated 798 known sites - Completed disposition of 16.8M tons of waste at ERDF - Removes radioactive sludge away from the Columbia River
Plutonium Finishing Plant	<ul style="list-style-type: none"> • 110 of 238 Glove Boxes Removed • 23 of 46 facilities D&D 	<p>100% of Plutonium Finishing Plant Complex Demolished</p> <ul style="list-style-type: none"> - Complete 238 Glove Boxes removal - Complete D&D of 46 facilities/structures
Retrieval of suspect contract handled legacy TRU waste	<ul style="list-style-type: none"> • 10,000 cubic meters of 15,000 cubic meters retrieved 	<p>>90% of Legacy Transuranic Waste disposition</p> <ul style="list-style-type: none"> - 14,800 m3 of contract handled waste disposition