

Status of DOE Cleanup in Idaho

Presentation to the “LINE Commission”

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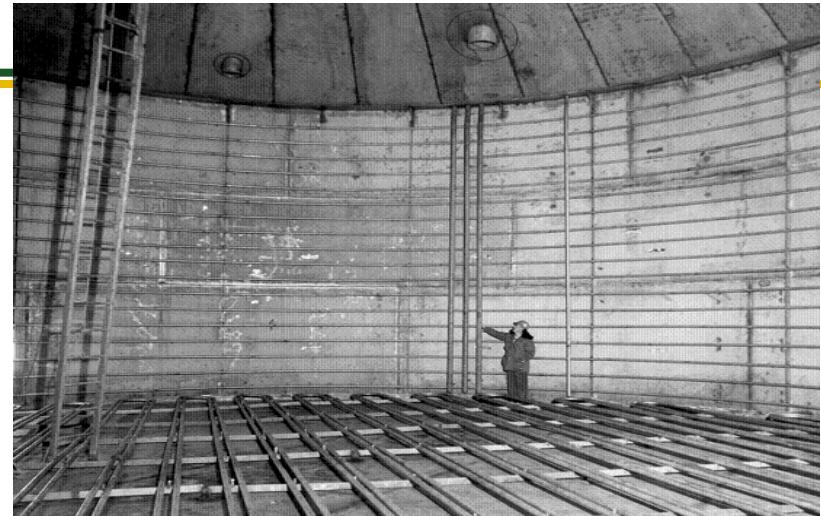
April 7, 2012

Idaho Falls, Idaho

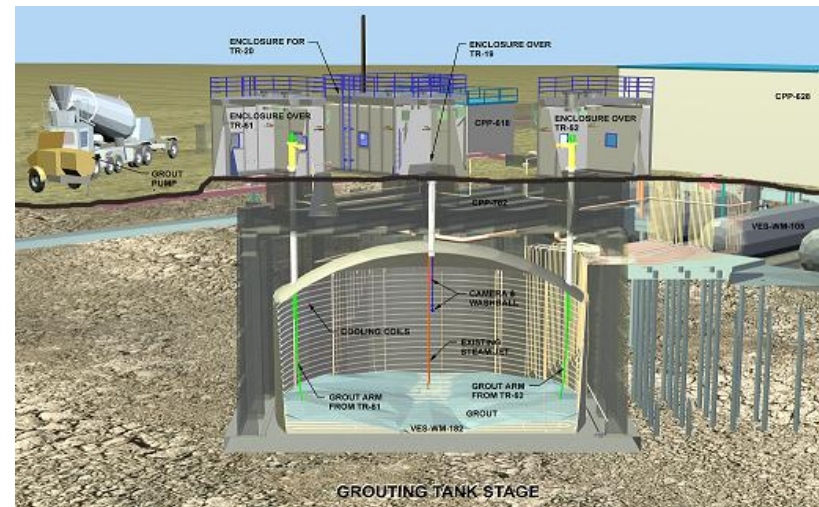


Idaho Site Cleanup History

- Originally established in 1949 as a national reactor testing base; 52 "first-of-a-kind" reactors have been constructed at the site.
- Has an extensive history of supporting the U.S. Department of Energy's nuclear, energy research, science, and national defense missions including:
 - Spent nuclear fuel reprocessing (removing reusable uranium from used nuclear fuel)
 - Radioactive waste storage and disposal
 - Used nuclear fuel storage
- In 1989 the Idaho Site was added to the National Priorities List by the Environmental Protection Agency. As a result the U.S. Department of Energy entered in to a number of regulatory cleanup agreements.



Inside look of a underground liquid waste tank



Sketch of underground tanks



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The Cleanup Mission

- The cleanup work is essential to the health and economic vitality of our local communities and in protection of the environment and the Snake River Plain Aquifer.
- It is the mission of the Idaho Cleanup Project to accelerate cleanup of past contamination and manage waste that is left over from Cold War and research activities.
- We continue to maintain excellent rapport with our Regulators through successful completion of regulatory milestones.
- We maintain excellent communication with affected tribes and local stakeholders.
- We focus on results with a priority on safety and a value to the taxpayer.



Accelerated Retrieval Project Exhumation Facility construction



Buried waste is dug up from the Subsurface Disposal Area (2009)



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“ Complete the safe cleanup of the environmental legacy brought about from five decades of nuclear weapons development, production, and Government-sponsored nuclear energy research.”

Idaho's priorities:

- Complete radioactive tank waste treatment and closure
- Disposition transuranic (plutonium-contaminated) waste
- Complete excess facility deactivation and decommissioning
- Continue soil and groundwater remediation
- Continue safe spent nuclear fuel storage
- Continue progress on the Calcine Disposition Project



DOE Complex's 10,000th shipment of transuranic waste leaves Idaho on one-way trip to WIPP, Sept. 23, 2011

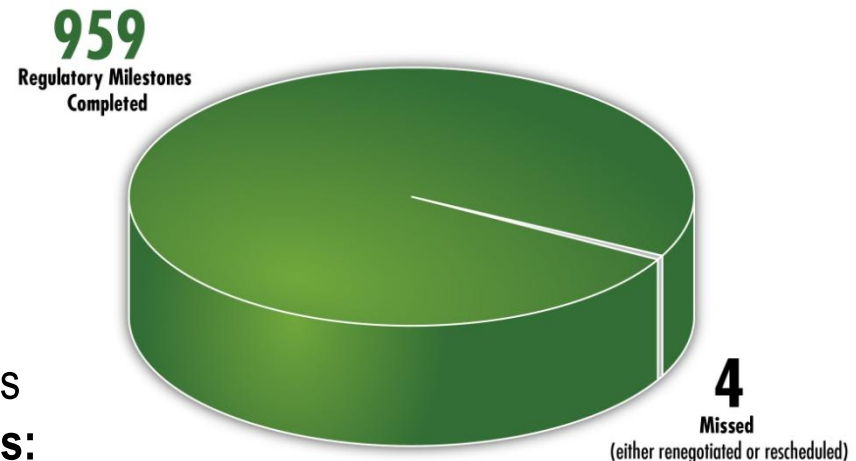


A technician surveys waste drums at AMWTP



Idaho Cleanup Governed by Several Legal Agreements:

- Idaho Settlement Agreement: covers treatment and/or removal of stored waste and spent nuclear fuel. **(Status: Current with all milestones)**
- FFA/CO (“Superfund” agreement) regulates cleanup of past contamination and environmental releases. **(Status: Current with all milestones)**
- Site Treatment Plan: covers management of mixed (both hazardous and radioactive) waste. **(Status: Current with all milestones)**
- Voluntary Consent Order: specifies corrective actions of required remediation that we self-reported. **(Status: Completed corrective actions)**





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What We've Accomplished

Buried Waste Retrieval- Exhumed 2.99 acres of the required 5.69 acres— including the completion of the infamous Pit 9.

Transuranic (TRU) Waste Disposition- Idaho is the single largest shipper of TRU waste in the DOE complex.

- We have shipped 5,087 of the total 10,284 shipments received by the Waste Isolation Pilot Plant (January 2012).



2005

Reactor Technology Complex (Formerly Test Reactor Area)



2012

Reactor Technology Complex (Formerly Test Reactor Area)



What We've Accomplished

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Spent Nuclear Fuel- Emptied and closed aging spent nuclear fuel basins; moved fuel into dry storage facilities. Only spent fuel pool in operation meets all current storage standards.



2005

Test Area North - Technical Support Facility



2012



What We've Accomplished

Deactivation & Demolition (D&D)-Cleaned up over 2 million square feet of radioactively contaminated areas, facilities and structures.

Power Burst Reactor, facilities, before/after D&D



2005



2012



Integrated Waste Treatment Unit

- Constructed to process 900,000 gallons of highly radioactive liquid waste.
- Construction phase was completed in June of 2011.
- Operational Readiness Review currently underway.
- Start-up expected later this month (April).
- Waste processed by 12/31/2012 in accordance with the Settlement Agreement milestone.





From Ground Up

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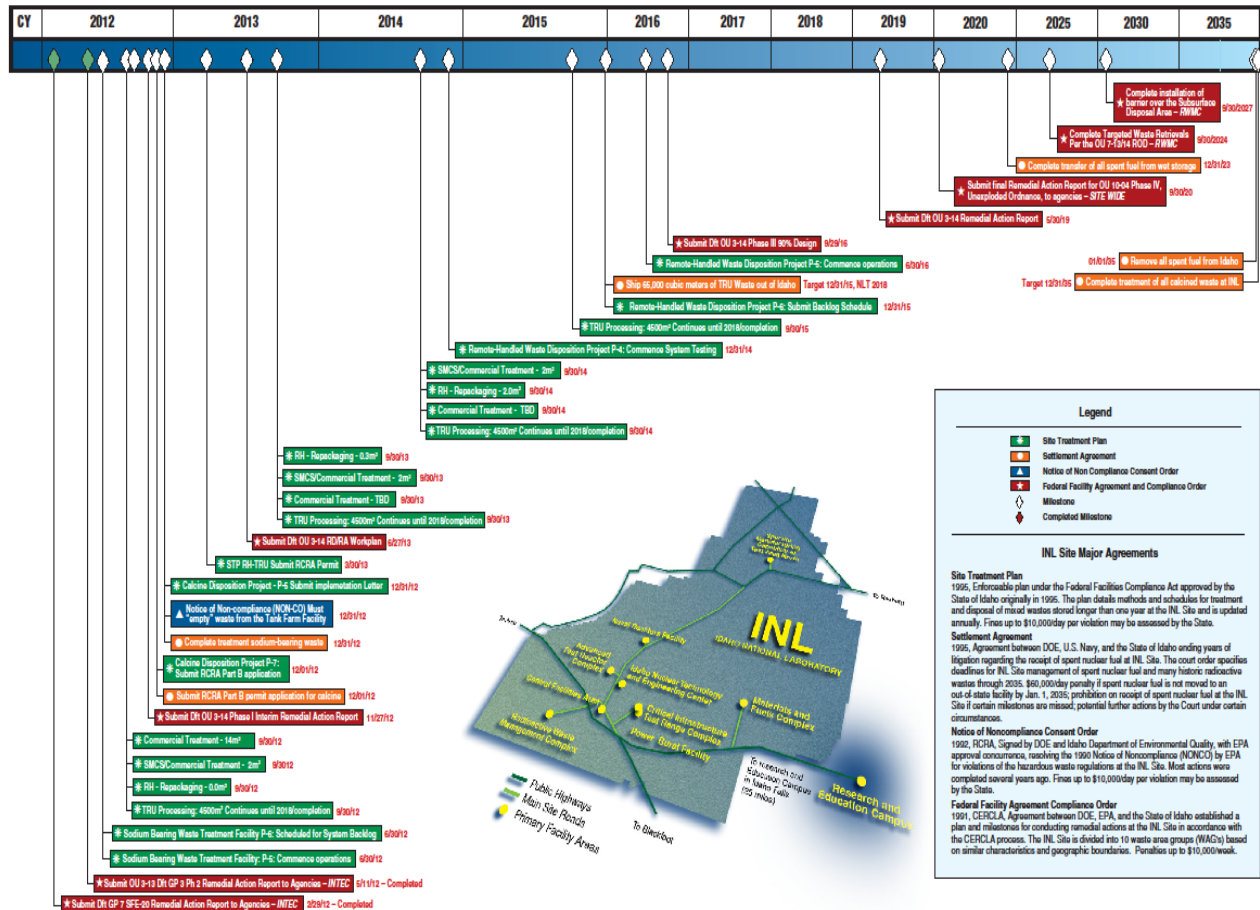


DOE Idaho Site Major Agreement Milestones



What We Have Left to Do

- Continue shipping transuranic waste to WIPP.
- Continue to receive domestic and foreign research reactor spent nuclear fuel for placement in to dry storage. Remove all spent fuel by 2035.
- Continue to support the Calcine Disposition Project to meet the “road-ready by 2035” Settlement Agreement milestone.
- Complete removal of targeted buried waste.
- Complete processing of 900,000 gallons of waste in underground tanks.

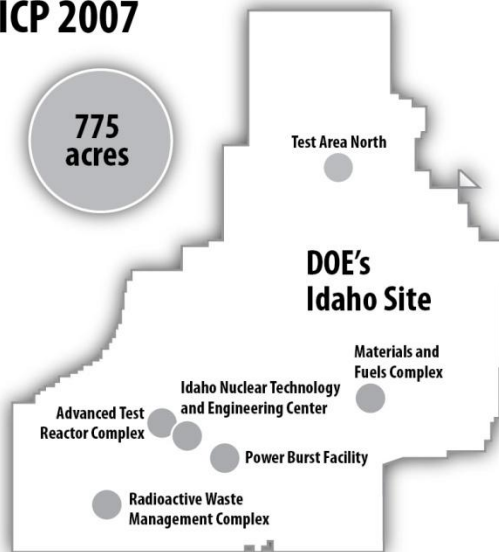




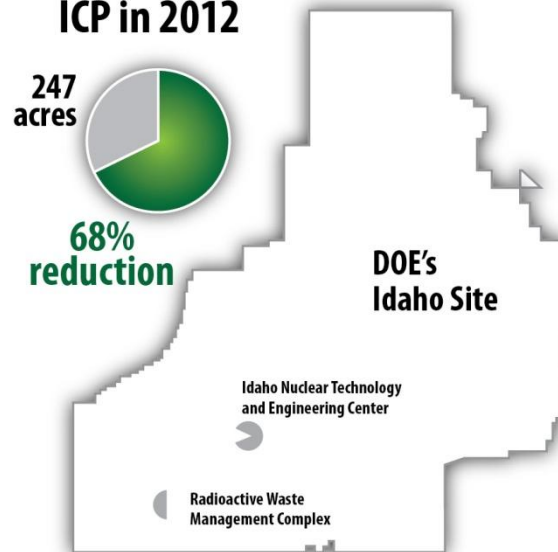
Footprint Reduction

The 2015 investment strategy for Idaho would result in a cumulative footprint reduction of 713 acres – a 92 percent reduction in EM liabilities.

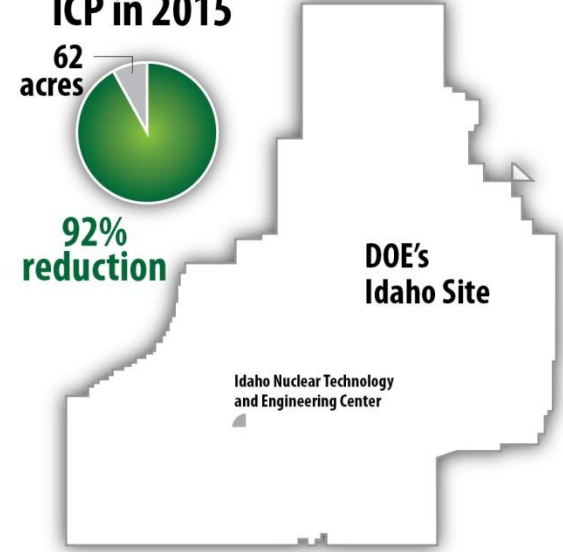
ICP 2007



ICP in 2012



ICP in 2015



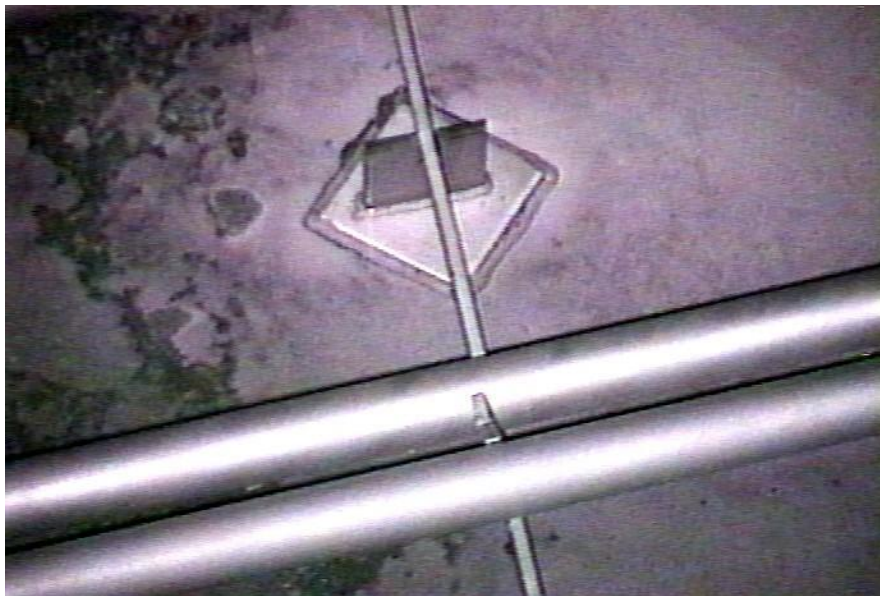
Backup Slides

IWTU and Tank Farm Photos

Tank Farm, IWTU Photos



Overhead view of the Tank Farm



Inside the bottom of a cleaned tank



Construction at the IWTU



Integrated Waste Treatment Unit