



# *Sodium-Bearing Waste Treatment Project Update*

Presented at the Citizens Advisory Board Meeting,  
July 12, 2011

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**Department of Energy-Idaho**



***E<sub>M</sub>*** *Environmental Management*

## ***Sodium Bearing Waste Treatment Project Mission***

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- New Facility to Treat 900,000 Gallons of Radioactive Liquid Waste currently stored in underground tanks at the INTEC Tank Farm
- Idaho Settlement Agreement Requires Treatment of Tank Waste by December 2012
- Consent Order requires the remaining INTEC Tank Farm tanks to be emptied by December 2012
  - Tank Farm tanks secondary containments non-compliant with RCRA



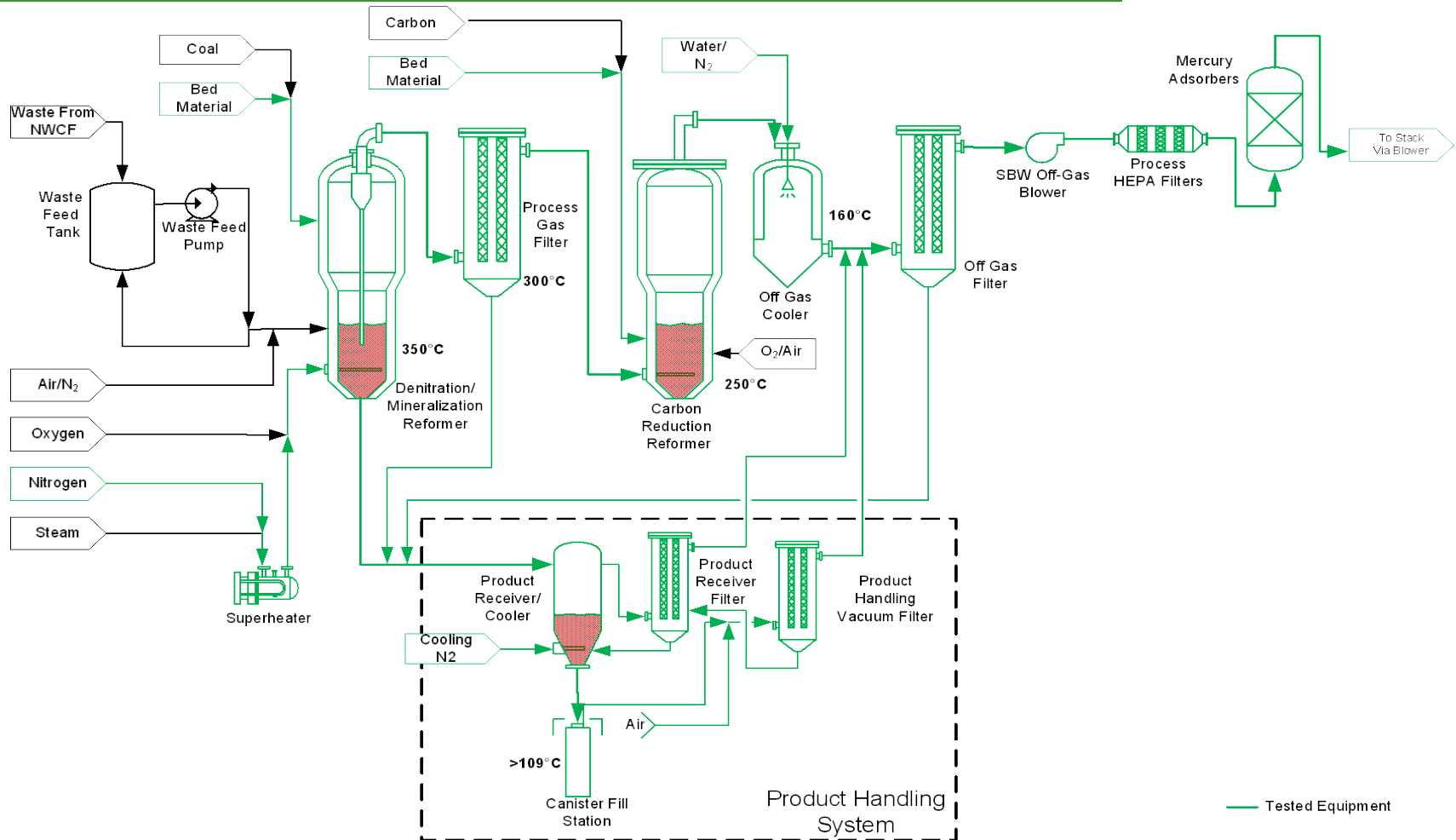
# *Sodium Bearing Waste Treatment Project Description*

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- Steam Reforming technology converts acidic radioactive liquid waste to solid carbonate particles
- New facility - includes Process Building with reinforced concrete process cells inside a structural steel building, along with a Product Storage Building
- Produces ~ 650 – 700 remote-handled waste canisters
- Product Storage Building provides interim storage for entire product volume
- Project at times referred to as the Integrated Waste Treatment Unit (IWTU)



# Demonstration Flowsheet



# *Sodium Bearing Waste Treatment Project*

- January 2011 ESAAB established CD-4 date of December 31, 2011 and TPC of \$571M per contract modification 167
- Contract modification 167 established cost cap of \$533M



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## *Project Status*

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- Project Construction was completed on June 3, 2011
- Overall Project completion is approximately 93%.
- Systems turnover/testing in progress. All process systems have been turned over and are in testing
- Hot Nitrogen Systems Integrated Systems test scheduled for August 2011
- Emergent work resulting from system testing is challenging CD-4 Project Completion date of December 31, 2011



# *IWTU Facility*

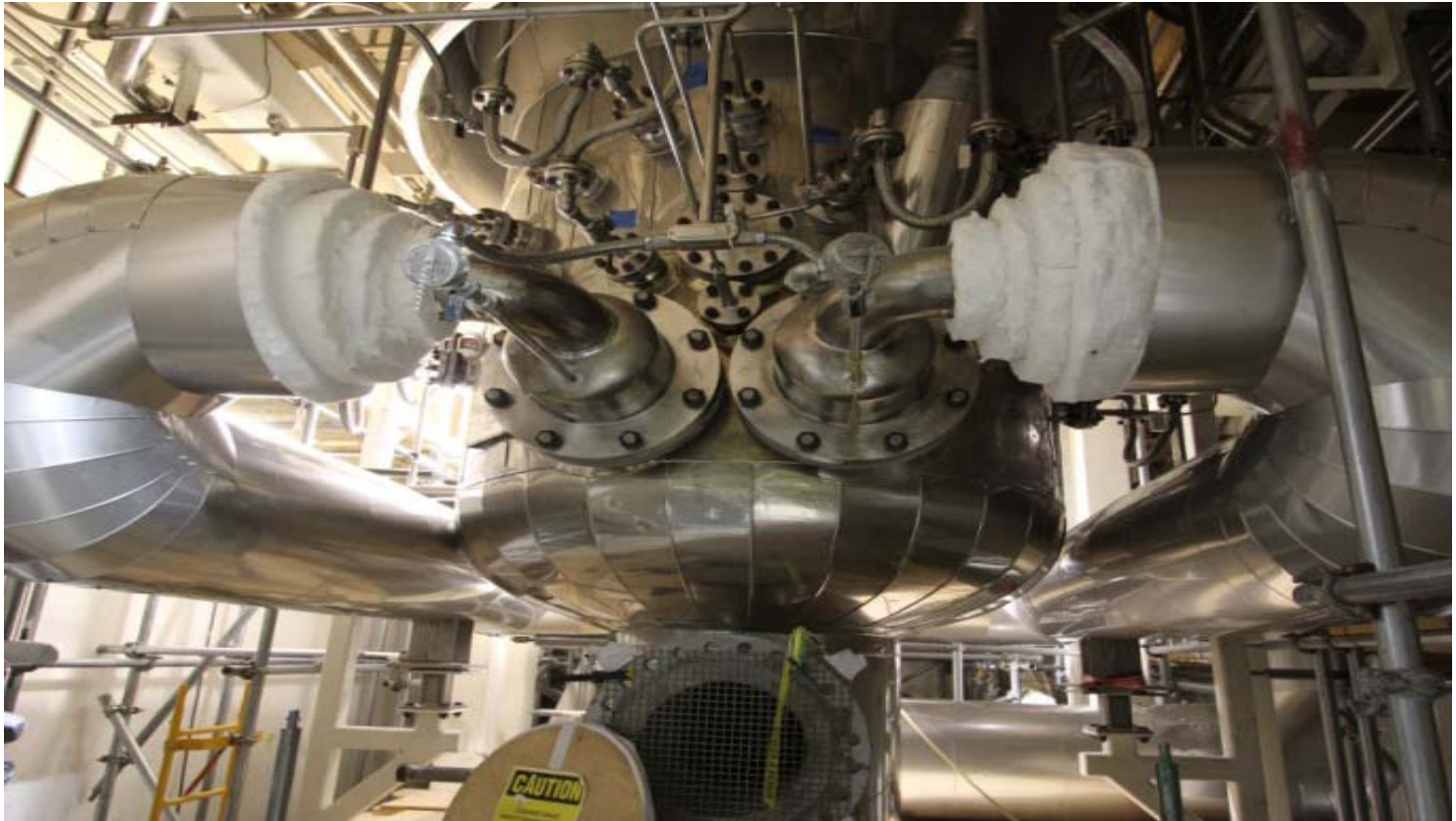
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# *Process Vessel*

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# *Piping*

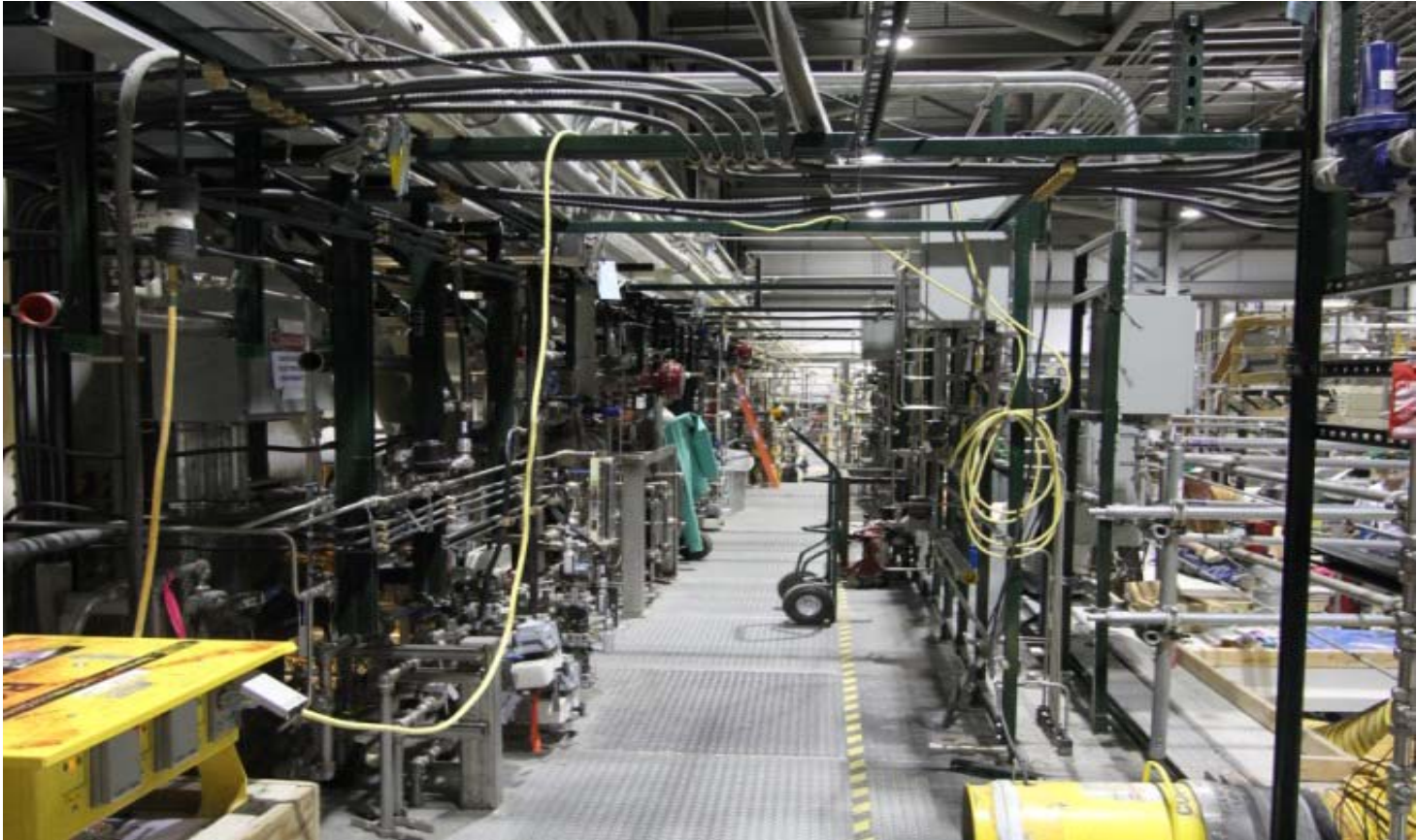
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# *Piping*

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# Auger Grinder



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## *Top of Process Cell*



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## *Overhead Crane and Canister Transfer Bell*

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# *Product Canister*

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# *Canister Vaults*

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## *Product Storage Building and Vaults*

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## *IWTU Control Room*

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