



U.S. DEPARTMENT OF
ENERGY

OFFICE OF
**ENVIRONMENTAL
MANAGEMENT**

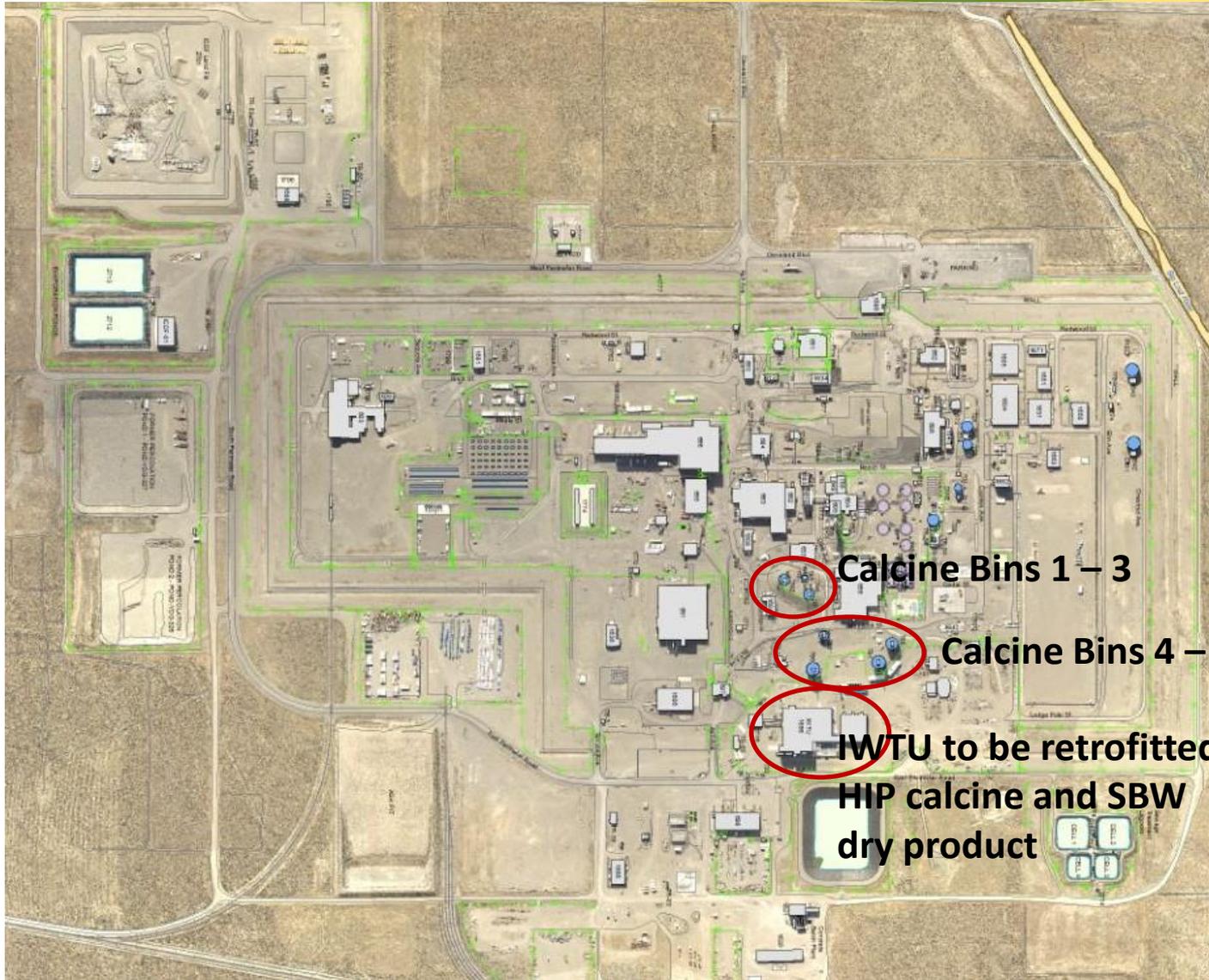
Idaho Cleanup Project (ICP) Calcine Disposition

Ken Whitham

Assistant Manager for Facility and Material Disposition

December 4, 2013

- **Background/Requirements Drivers**
- **Overview of Scope Elements**

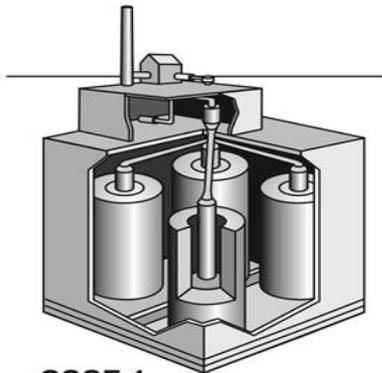


Calcine Bins 1 – 3

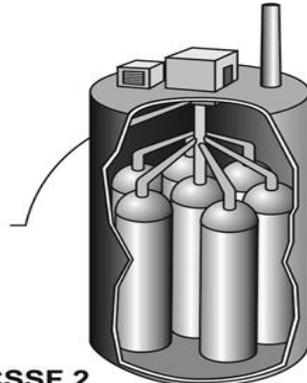
Calcine Bins 4 – 7

**IWTU to be retrofitted to
HIP calcine and SBW
dry product**

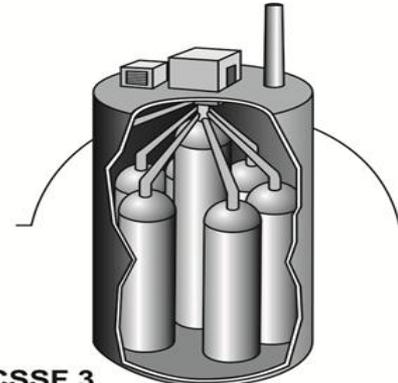




CSSF 1
 Calcine Volume: **220 m³**
 Usable Capacity: **227 m³**

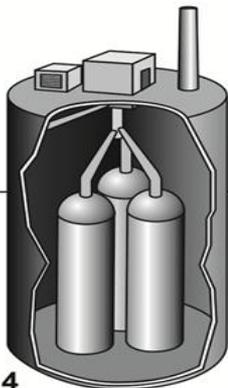


CSSF 2
850 m³
850 m³

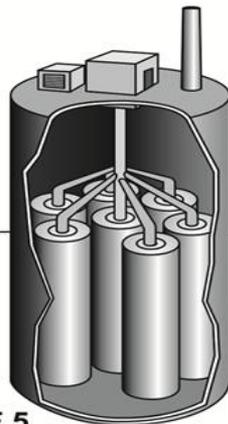


CSSF 3
1,120 m³
1,130 m³

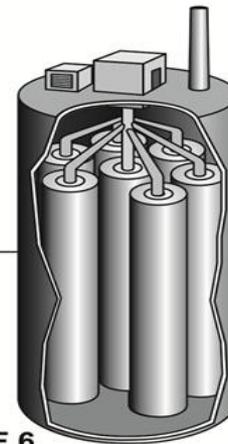
**Total: 4,400 m³
 of calcine waste**
 (INEEL/EXT-98-00455, Rev.4
 [Staiger and Swenson 2011])



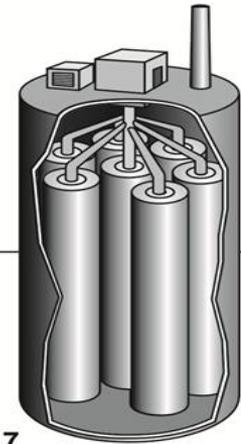
CSSF 4
 Calcine Volume: **486 m³**
 Usable Capacity: **486 m³**



CSSF 5
1,010 m³
1,010 m³



CSSF 6
713 m³
1,506 m³



CSSF 7
0 m³
1,784 m³

G10-2497-15

Idaho Settlement Agreement

- Treat and have all high-level waste road-ready to remove from Idaho by 2035

RCRA Site Treatment Plan

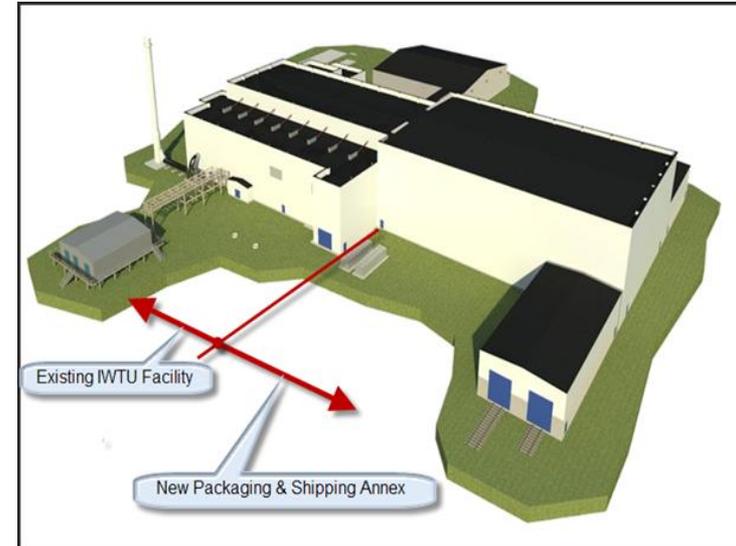
- Provides framework for mixed waste management at INL Site including Calcine

General Compliance Drivers

- Laws, Regulations, DOE Orders
- Permits

Calcine Disposition Project Scope

- Design and construct processing facility using existing facility (Integrated Waste Treatment Unit) to the maximum extent practical
- Retrieve and transport 4,400 cubic meters of calcine from current storage in the Calcine Solids Storage Facilities
- Process 700 canisters of Sodium Bearing Waste containers through the Hot Isostatic Press (HIP)
- Treat calcine to meet revised Land Disposal Restriction requirements
- Make calcine road ready for disposition or storage outside of Idaho by 2035



- Critical Decision (CD)-0 (Approve Mission Need) was signed June 29, 2007
- Record of Decision (ROD) selecting Hot Isostatic Pressing (HIP) treatment technology was issued by DOE on December 23, 2009.
- RCRA Part B permit application for the Calcine Disposition Project was submitted to the State DEQ.
- Submit Site Treatment Plan Schedule by December 31, 2012 to include dates to:
 - Procure contracts
 - Initiate construction
 - Conduct systems testing
 - Commence operations
- All calcine must be road ready in compliance with the Idaho Settlement Agreement by December 31, 2035

Calcine Disposition Project Plans

- Project is currently on minimal funding to support RCRA Part B comments from State of Idaho.
- Activities that are being reviewed for next contract may include:
 - Design Calcine Retrieval System
 - Place IWTU in Cold Wet Lay-up
 - Technology Development
 - Develop Lab Scale Best Demonstrated Available Technology data package
- Project Schedule to achieve
 - CD-3 FY19

