



U.S. DEPARTMENT OF
ENERGY

OFFICE OF
**ENVIRONMENTAL
MANAGEMENT**

CERCLA REMEDIATION IDAHO CERCLA DISPOSAL FACILITY (ICDF)

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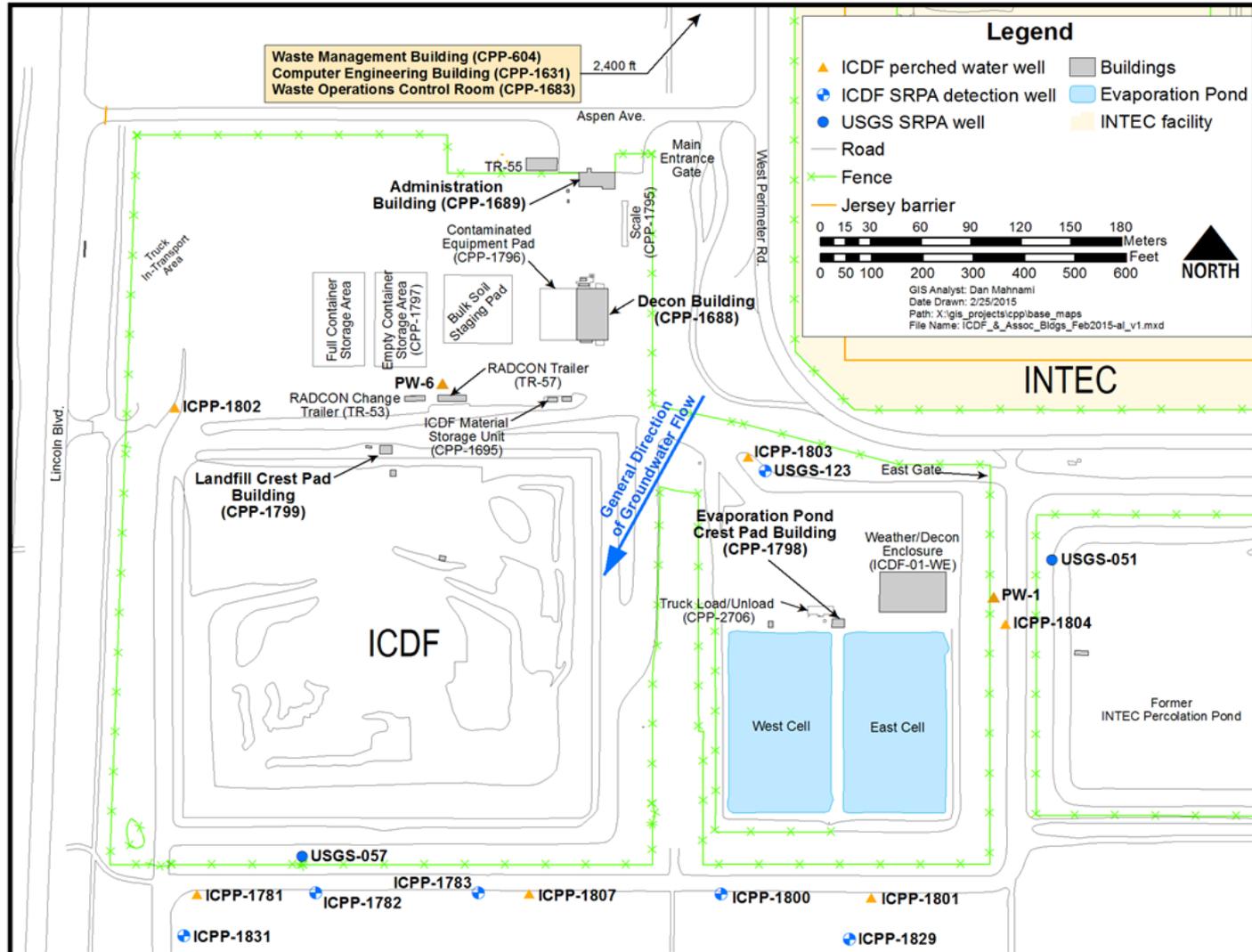
*Idaho CERCLA Disposal Facility
Idaho Cleanup Project*

October 29, 2015

Why the ICDF ?

- **Final Record Of Decision, Idaho Nuclear Technology and Engineering Center, Operable Unit 3-13 (ROD)**
 - Need to dispose of CERCLA wastes and Decontamination and Decommissioning (D&D) rubble
 - Cost / Benefit analysis for offsite vs. onsite disposal
- **Federal Facility Agreement and Consent Order for the Idaho National Engineering and Environmental Laboratory (FFA / CO)**
- **Selected Remedial Action for Group 3 - Removal and On-Site Disposal**

What is the ICDF?



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Disposal Cells

Evaporation Ponds



What waste goes into ICDF ?

- **CERCLA related waste materials**
 - Advance Mixed Waste Treatment Project (AMWTP) Soils
 - AMWTP Cargo Containers
 - Idaho Nuclear Technology and Engineering Center (INTEC) closures
- **Decontamination & Decommissioning**
 - Rubble and debris
- **Groundwater sampling**
 - Purge water



Bulk Soil and Debris Disposal Operations



Roll-on/Roll-off Oct. 2009



Intermodal Apr. 2004



Artic Bulk Soils Aug. 2006



Super-dump Sep. 2010

Containerized Waste Disposal Operations



Tank Disposals



V-tanks Jul. 2006



Borated Water Tank (LOFT) Aug. 2006



T-Tanks Sept. 2006



Alcohol Tanks May 2011

Special Handling



White Elephant Cask Co⁶⁰ Jul. 2011



Tan 603 Boiler Aug. 2007

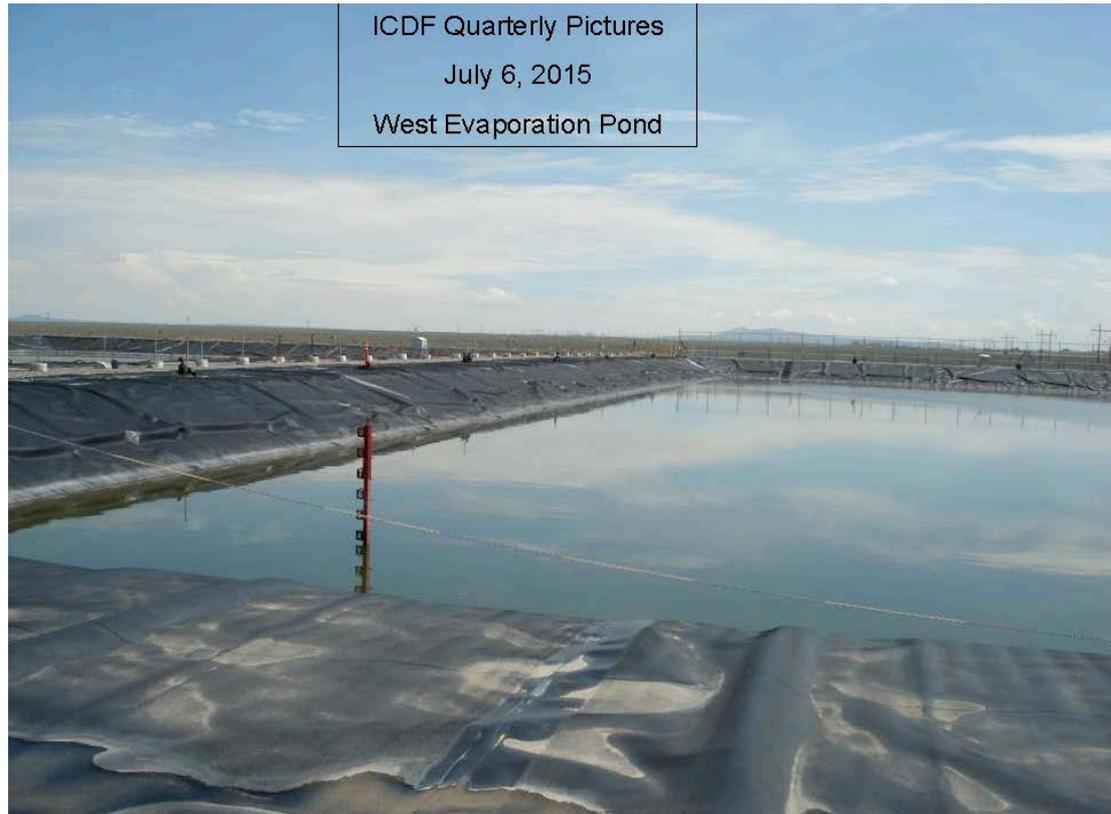


GEM glove boxes Sept. 2009



Evaporation Ponds

- Leachate from disposal cells
- Purge water from sampling monitoring wells
- Other CERCLA related waters



ICDF Quarterly Pictures
July 6, 2015
West Evaporation Pond

- **CERCLA Documentation**
 - Public input / approval by the Idaho Department of Environmental Quality (DEQ) and the U.S. Environmental Protection Agency (EPA)
 - Action Memorandum for General Decommissioning Activities
 - Waste Acceptance Criteria
 - Hazardous waste materials
 - Limits
 - Mixed Waste materials
 - limits
 - Low Level Radioactive waste materials
 - Limits
- **DOE Order 435.1 requirements**
 - Disposal Authorization Statement (DAS)
 - Performance Assessment
 - Composite Assessment

- **Waste Acceptance Criteria**
 - Waste type and configuration
 - Bounding limits
 - Documentation prior to movement and at acceptance
 - Testing and verification prior to movement and at acceptance
 - Records
- **Evaporation Ponds**
 - Similar process and testing and validation
 - Sampling pond waters
- **Groundwater Monitoring Wells**
 - Both perched water and ground water

Action Memorandum for General Decommissioning Activities

- Decommissioning Activities
- Public Input / Regulator Approval
- CERCLA non-time critical removal action process
- Integration with the Idaho CERCLA Disposal Facility (ICDF)

Benefits of ICDF

- Taking wastes from “uncontrolled” environment to a highly-controlled, managed and monitored landfill. (ICDF is lined, has a leachate collection system, lined ponds.)
- Significant cost savings by consolidating wastes on-site vs. sending material off-site.

ICDF Landfill Engineered Liner, Leachate Collection System, and Leak Detection System

