



U.S. DEPARTMENT OF **ENERGY**

Fulfillment of the Cleanup Mission at Idaho

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EM *Environmental Management*

safety ❖ performance ❖ cleanup ❖ closure

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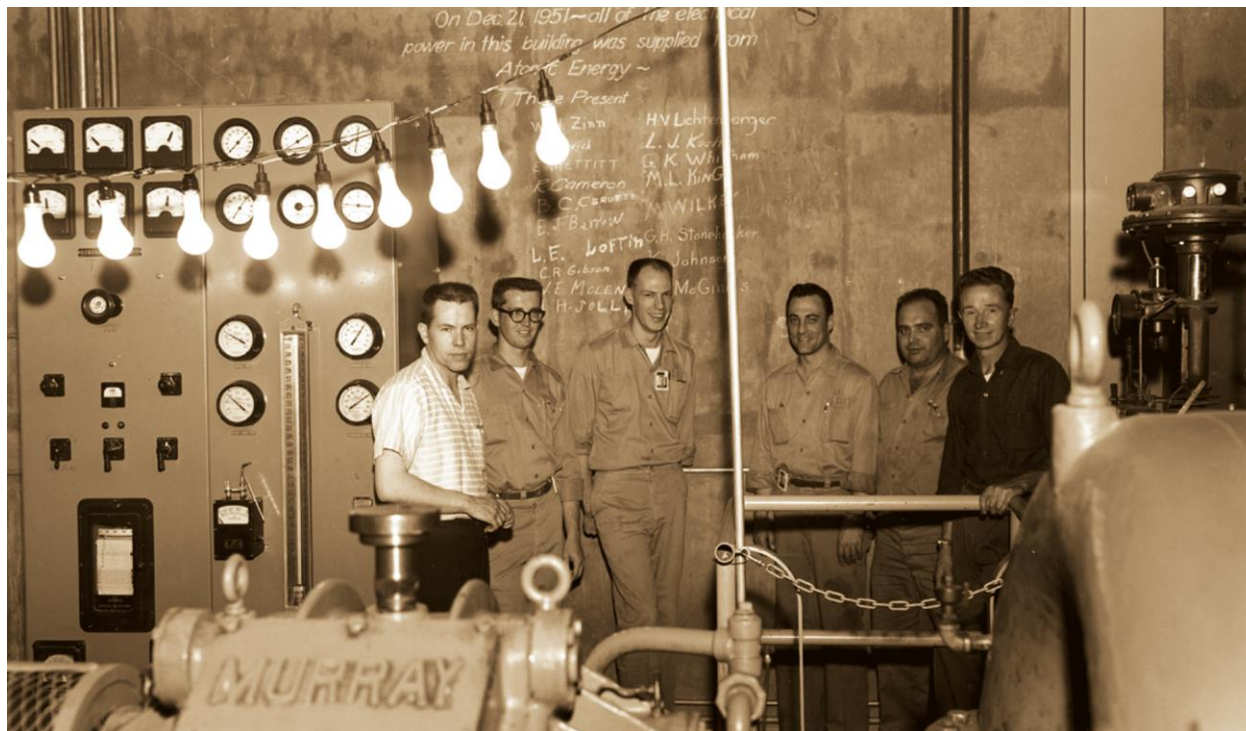
History

- 890-square-mile remote location in southeastern Idaho
- In 1949, established as National Reactor Testing Station (prior use as Naval Proving Grounds)
- Now known as the Idaho National Laboratory (INL) site



Test Reactors

- Provided ideal location for design, construction and testing of prototype nuclear reactors
- Home to 52 first-of-a-kind nuclear test reactors



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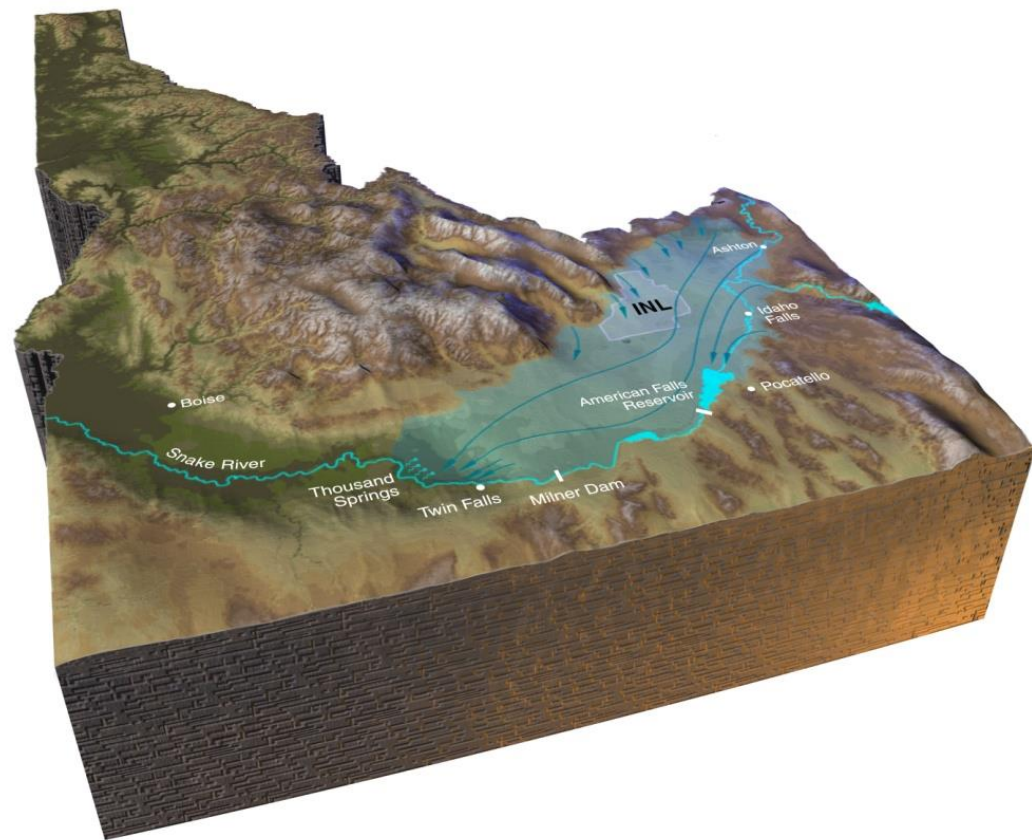
Other defense missions

Disposal of Rocky Flats Plant waste
at the Subsurface Disposal Area

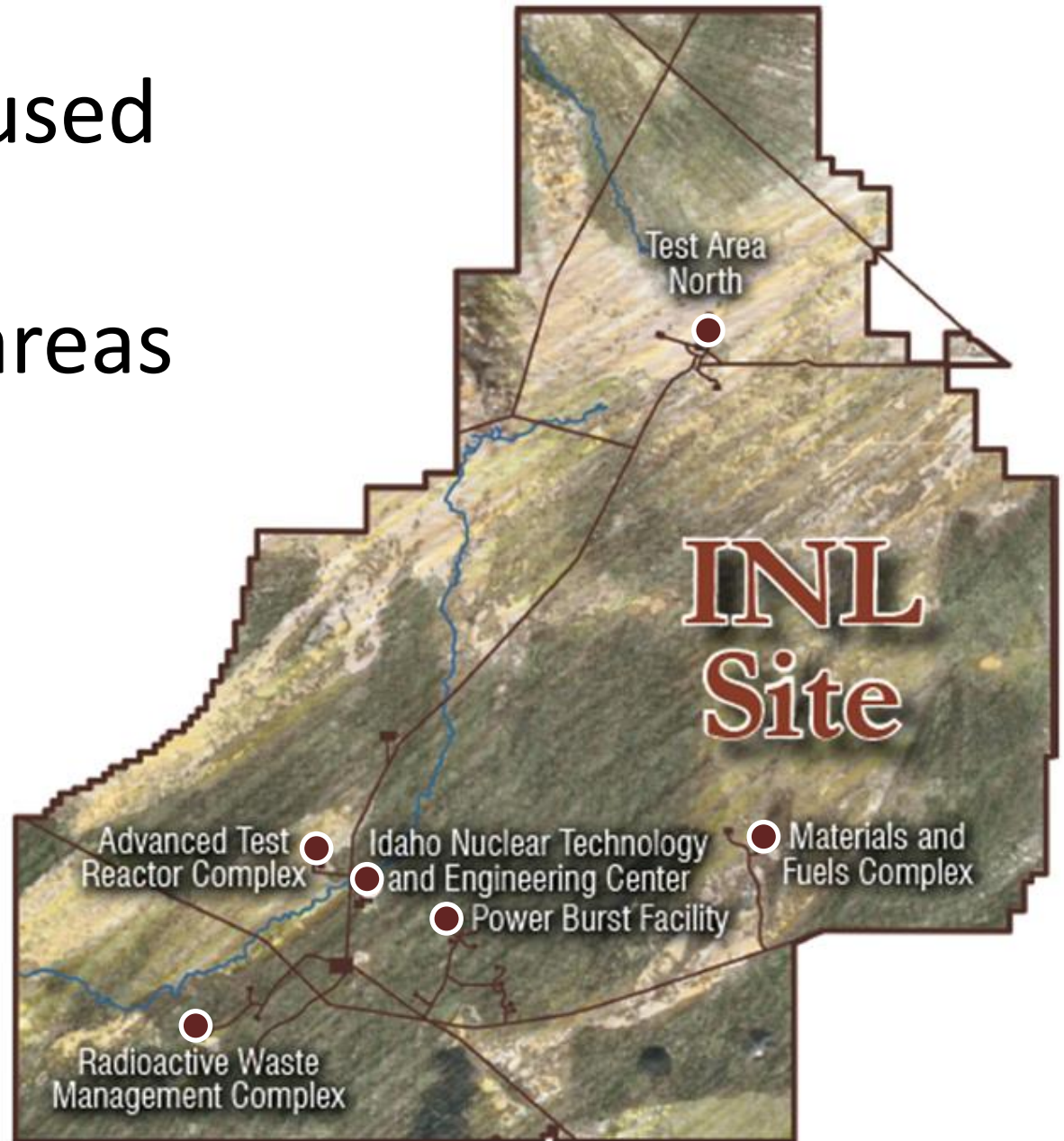


Cleanup – protecting the Snake River Plain Aquifer

- Added to Superfund National Priorities List in 1989
- Legal and regulatory framework
 - CERCLA (1991)
 - Idaho Settlement Agreement (1995)
- Cleanup effort conducted within INL footprint



Cleanup focused
on six major
geographic areas



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Cleanup implementation

- Delivered through two cleanup contractors

–Idaho Cleanup Project



- Managed by **CH2M-WG Idaho**
- Tom Dieter, President and CEO

–Advanced Mixed Waste Treatment Project



- Managed by **Idaho Treatment Group**
- Danny Nichols, President and Project Manager



Test Area North



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TAN History

- Established in 1950s to support Aircraft Nuclear Propulsion program
- Home to Loss of Fluid Test (LOFT) reactor
 - Constructed between 1965 and 1975
 - Scaled-down version of commercial pressurized water reactor
 - Allowed scientists to simulate reactor fuel meltdowns under controlled conditions
- Home to TAN-607 Hot Shop
 - Activated in 1957
 - Spanned more than 150,000 square feet
 - Facilities included hot shop, smaller hot cells, high bays, and a spent fuel storage basin



EM Cleanup at TAN

- Complete decommissioning and demolition of all EM facilities and structures
- Complete CERCLA remediation actions



Power Burst Facility



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PBF History

- Built in 1970s
- Used to conduct experiments to help determine safe operating limits for the commercial nuclear industry
- Installed in three-story, 19,000-square-foot facility
- Placed in safe shutdown in 1998



EM Cleanup at PBF

- Complete decontamination and decommissioning of EM facilities
- Complete CERCLA remediation actions



Idaho Nuclear Technology and Engineering Center



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INTEC History

- Established in the 1950s as the Idaho Chemical Processing Plant to recover usable uranium in spent nuclear fuel from government reactors and to store spent fuel
- Spans ~200 acres
- Major facilities
 - Integrated Waste Treatment Unit
 - CPP-666 Fluorinel Dissolution Process and Fuel Storage
 - TMI-2 Independent Spent Fuel Storage Installation
 - Calcine storage facilities
 - Tank Farm
 - CPP-603 fuel storage building



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EM Cleanup at INTEC

- Treat 900,000 gallons of sodium-bearing waste stored in Tank Farm
- Complete the RCRA closure of tanks (15)
- Complete decontamination and decommissioning of all facilities and structures that have no future mission
- Complete treatment and disposition of remaining remote-handled transuranic waste containers
- Transfer Experimental Breeder Reactor II spent nuclear fuel bottles to the Materials and Fuels Complex



Advanced Test Reactor Complex



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ATR History

- Served as the focal point in delivering the laboratory's energy research mission
- Home to three major test reactors
 - Materials Test Reactor
 - Engineering Test Reactor
 - Advanced Test Reactor



EM Cleanup at ATR

- Complete decontamination and decommissioning of all EM facilities and structures
- Complete CERCLA remediation actions



Materials and Fuels Complex



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MFC History

- Home of Experimental Breeder Reactor (EBR) II
 - First achieved criticality in 1961
 - Innovative sodium-cooled reactor
 - 62 megawatt output
 - Unique hazard – passivated sodium in more than two miles of reactor piping



EM Cleanup at MFC

- Retrieval of remote-handled transuranic waste for transfer to INTEC
- Complete transfer of EBR II spent nuclear fuel from INTEC to MFC (from wet to dry storage)
- Complete decontamination and decommissioning of EM facilities



Radioactive Waste Management Complex



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RWMC History

- Used since the 1950s to manage, store, and dispose of waste contaminated with radioactive elements generated in national defense and energy programs
- 177 acres and three main areas
 - Operations and Administration Area
 - Subsurface Disposal Area, 97-acre landfill
 - Transuranic Storage Area



EM Cleanup at RWMC

- Complete disposition of 65,000 m³ of stored transuranic waste
- Complete 5.69 acres of targeted buried waste exhumation
- Complete packaging and offsite disposal of 7,785 m³ of targeted transuranic waste (part of the 5.69 acres of targeted waste exhumations)

