



U.S. DEPARTMENT OF  
**ENERGY**

**Nuclear Energy**

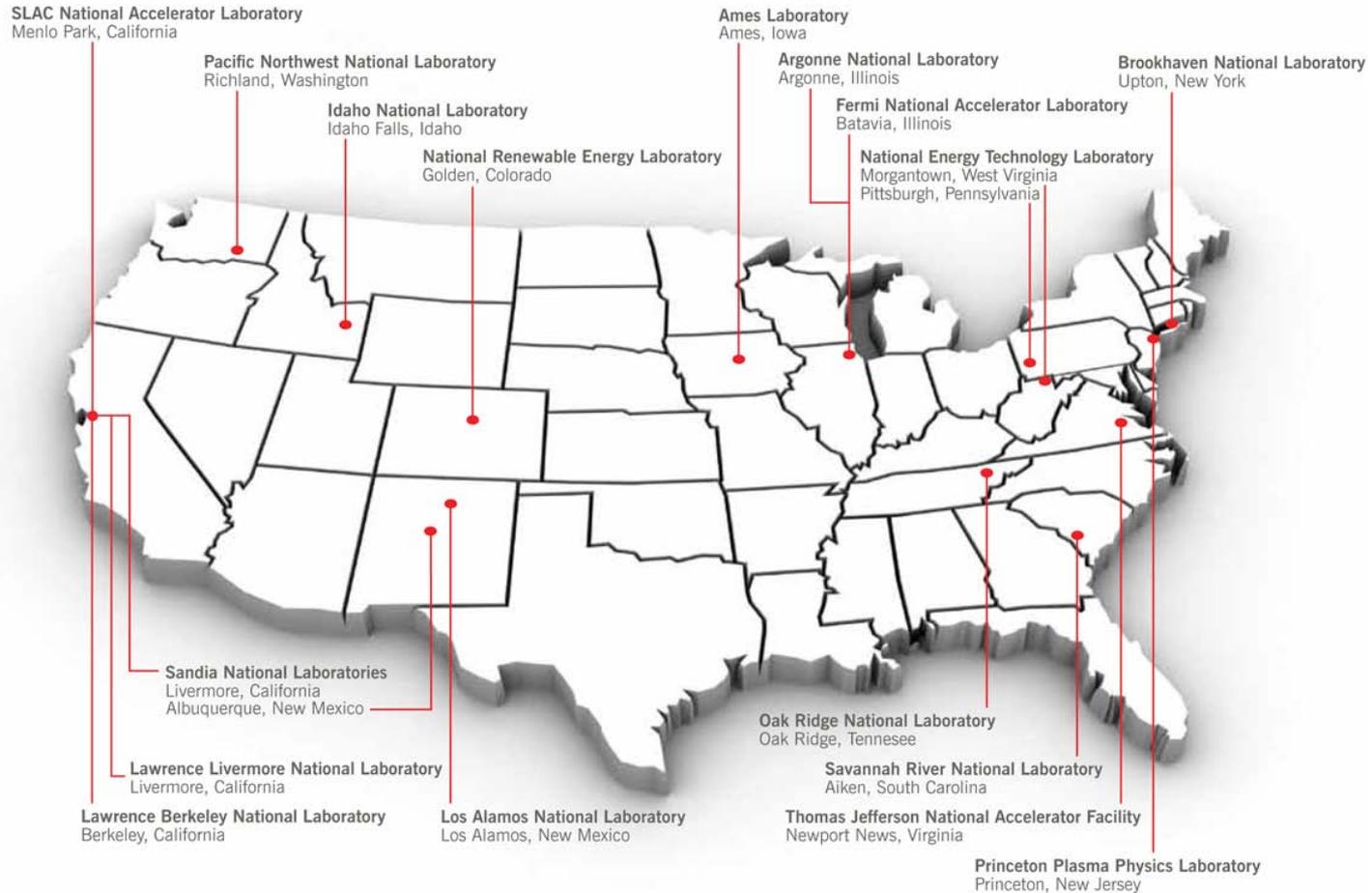
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# The Importance of INL In the DOE Federal Lab System

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# Idaho Truly Fortunate to Have One of 17 National Labs



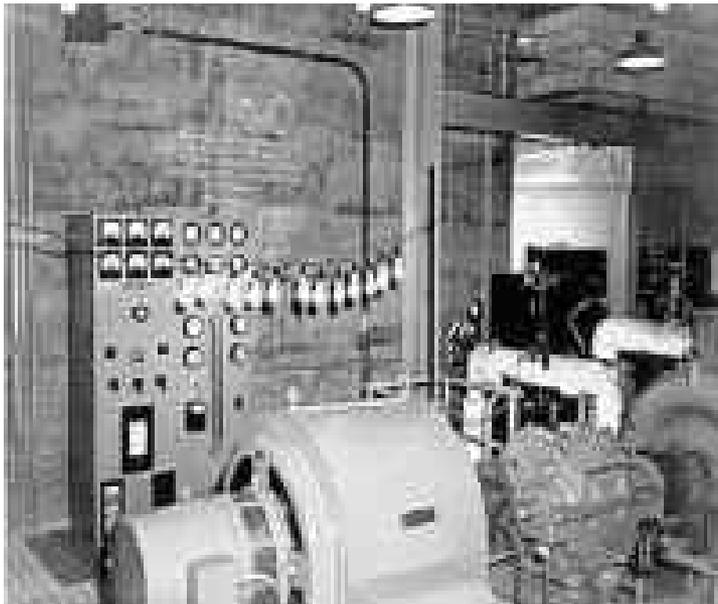
# The INL is a Federally-Funded Research and Development Center (FFRDC)

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- FFRDC designation allows long-term relationship between the Government and the lab, which attracts high-quality personnel with specialized expertise.
- The INL is a premier multi-program research and development laboratory.
- It is focused on applied engineering, with an emphasis on research, development, demonstration and deployment of new technologies.
- The lab has a strong emphasis on energy and national security activities.



# INL Has in Turn Been A Valuable Asset for the Nation



- Originally Known as the National Reactor Testing Stations (NRTS), the Lab Became World Leader in Commercial Nuclear Power Applications in the 1950s and 60s.

# Idaho Contributions to Nuclear Power Development

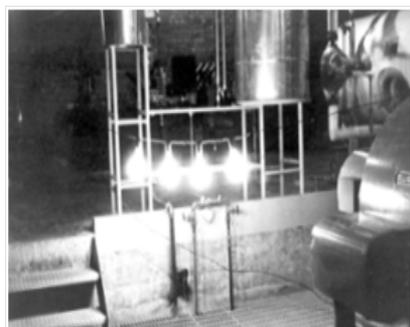
- Virtually every commercial power reactor in the world can trace elements of its design, safety features and/or materials selections back to work done in Idaho.
- The 52 reactors built and operated here over the years (1950s to 1970s) were basically designed to do one of two things: test materials to find the best for use in reactors; and demonstrate various reactor designs to demonstrate safety and performance.
- While other national laboratories focused largely on nuclear weapons development, NRTS was THE place in the world for commercial nuclear R&D.



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# Idaho Nuclear Milestones Over the Years Are Well-Known



## At Same Time, NRTS Was Becoming Contributor to National Defense

- Reprocessing spent Navy and other government-owned fuels to recover HEU for weapons production (1950s-1992).
- Naval Reactors Facility: training nuclear operators on reactor prototypes (1950s to 1990s) and conducting propulsion reactor R&D (1950 to present).
- Developing a “nuclear airplane” (1950s and 60s).
- Disposing of weapons-generated waste from other sites (1950s to 1980s).



## A Name Change – And a Broader Mission

- In 1974, NRTS became the Idaho National Engineering Laboratory (INEL), to reflect its growth into research and development activities outside commercial and defense nuclear applications.
- Becoming a “national laboratory” put the Idaho facility on more equal footing with the other Atomic Energy Commission research and development facilities, and allowed Idaho to compete for funding and new missions.
- The INEL became involved in geothermal and hydropower research, electric vehicle development, and wind and solar research, among other things.



## Still Another Name Change – And Another New Mission

- As cleanup became a much larger portion of the Idaho lab's mission, another "E" was inserted into its name – the Idaho National Engineering and Environmental Laboratory (1997).
- Spurred by the Superfund cleanup agreement of 1991, and the Idaho Settlement Agreement of 1995, the Idaho site became a national leader in cleanup.
- More waste was shipped from Idaho to WIPP than from any other site. We closed most of our HLW tanks, and began digging up buried waste.



## And Then the World Changed Again – And So Did We

- With the events of 9/11 (September, 2001), the nation began investing more heavily into security R&D – and the INEEL began making use of its secluded, 890-square mile terrain to assist.
- Meanwhile, as concern over Global Warming began heating up in the late 1990s, the nation renewed its interest in nuclear power. And the INEEL was there to provide the experience, facilities and expertise to support nuclear R&D.
- Finally, DOE made the decision to split the cleanup mission from the laboratory R&D, and the name changed again – to the Idaho National Laboratory (2005).

## So Where Does That Leave Us? (2011 and Beyond)

- As we head into the new decade, the INL remains a world leader in nuclear R&D, one of the most successful DOE sites in completing cleanup, and a major asset in national security.
- They are not our only attributes, but they are our “core competencies,” which set us apart from the rest of the national laboratory complex.
- As we head into an uncertain future, we can take comfort in knowing that Idahoans and the INL (NRTS, INEL, INEEL) have always risen to the occasion that new circumstances and new challenges present.
- We are proud of our history and look forward to a bright future.

## Handy References

### Nuclear Energy

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- “Proving the Principle,” DOE’s official history of the first 50 years of the laboratory, can be found on line at:  
<http://www.inl.gov/proving-the-principle/>
- Another author is in the process of updating the INL history, with a section on the last ten years of the laboratory. We anticipate publishing that update within the next year.