

July 27, 2011

Sandia National Laboratories

Carlsbad Defense Waste Management Programs Group

An Overview

Moo Y. Lee, Ph.D

Performance Assessment and Decision Analysis Department



Sandia National Laboratories is a multi program laboratory managed and operated by Sandia Corporation, a wholly owned subsidiary of Lockheed Martin Corporation, for the U.S. Department of Energy's National Nuclear Security Administration under contract DE-AC04-94AL85000.



Sandia's History



exceptional service in the national interest.

THE WHITE HOUSE
WASHINGTON

May 13, 1949

Dear Mr. Wilson:

I am informed that the Atomic Energy Commission intends to ask that the Bell Telephone Laboratories accept under contract

This contract should be a **national interest** in the national defense, and should have the **national interest** direction.

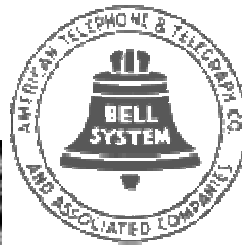
I hope that after you have heard more in detail from the Atomic Energy Commission, your organization will find it possible to undertake this task. In my opinion you have here an opportunity to render an **exceptional service in the national interest**.

I am writing a similar note direct to Mr. C. E. Huskley.

Very sincerely yours,

Harry Truman

Mr. Leroy A. Wilson,
President,
American Telephone and Telegraph Company,
195 Broadway,
New York 7, N. Y.



Sandia's Sites

SECURE A PEACEFUL AND FREE WORLD THROUGH TECHNOLOGY

Albuquerque, New Mexico



Livermore, California



Tonopah Test Range, Nevada



Yucca Mountain, Nevada



WIPP, New Mexico



Kauai Test Facility, Hawaii

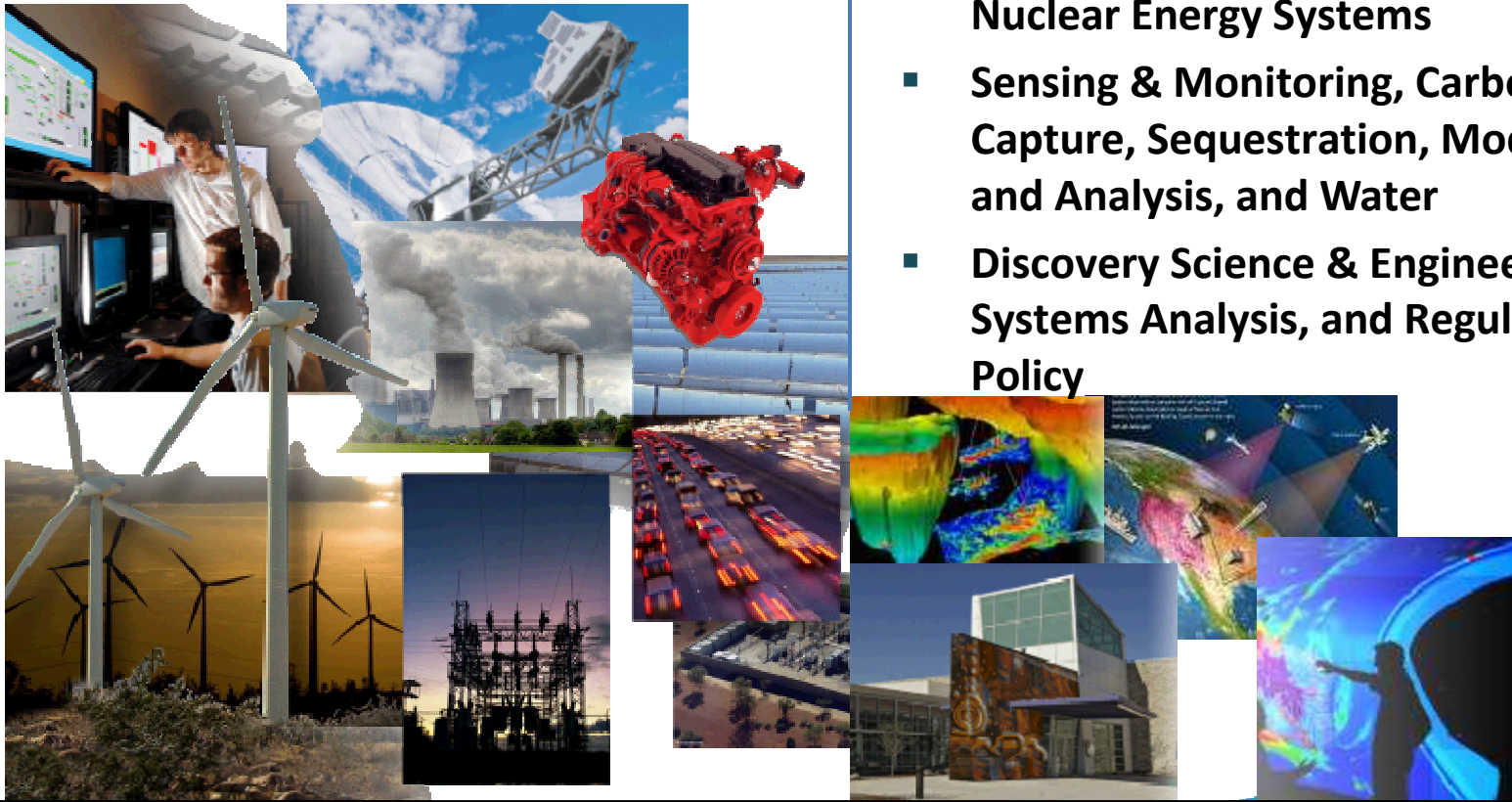
Energy, Climate, and Infrastructure Security

Program Areas

- Infrastructure Security
- **Energy Security**
- Climate Security
- Enabling Capabilities

Areas of Expertise

- Modeling & Analysis, Cyber, Electricity Distribution, and Energy Assurance
- Renewables, Energy Efficiency, Energy for Transportation, and Nuclear Energy Systems
- Sensing & Monitoring, Carbon Capture, Sequestration, Modeling and Analysis, and Water
- Discovery Science & Engineering, Systems Analysis, and Regulatory & Policy



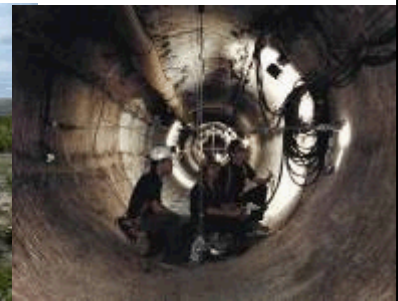
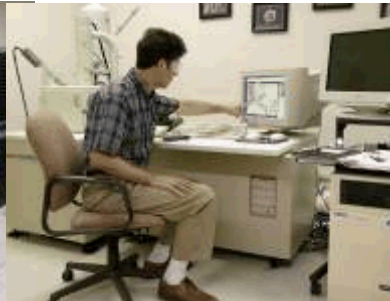
Sandia is the Science Advisor for Waste Isolation Pilot Plant

- AEC asked Sandia in 1974 to study whether the nation's defense nuclear waste could be buried safely in the salt beds near Carlsbad, N.M.
- Sandia's 36-year involvement in WIPP represents the longest-running project in Sandia.
- Sandia served as WIPP's official scientific advisor throughout the project.
 - Site selection, characterization, and EIS
 - PA methodology
 - Transportation
 - Scientific understanding and documentation that formed the basis of the first certified geologic repository.
 - Assures continued operations and compliance of WIPP with EPA regulations.



Sandia's WIPP Mission Today

- Sandia provides scientific support in performance assessment, geochemistry, hydrology, and geomechanics.
- Sandia assures continued WIPP compliance with EPA regulations through periodic recertification.



Sandia was the Lead Laboratory for the Yucca Mountain Project

- Provided management and integration services for all Yucca Mountain scientific programs.
- Supported OCRWM's license application and its defense in the NRC's review process.
- Increased technical credibility with the scientific community, as well as the regulators and stakeholders.
- On June 3, 2008, the U.S. DOE submitted an application to the U.S. NRC for a license to construct a repository at Yucca Mountain.



Future is now

- **Sandia will be actively involved in international programs in Nuclear Energy.**
 - Argentina-United States of America Joint Standing Committee on Nuclear Energy.
 - US-ROK Joint Fuel Cycle Studies on Used Fuel Disposition.
 - Repository Science Consortium in East Asia.
- **Sandia will be ready to lead the repository science program for the next national repository project.**
 - Blue Ribbon Committee
 - Salt Disposal Investigation
 - Deep Borehole Project



