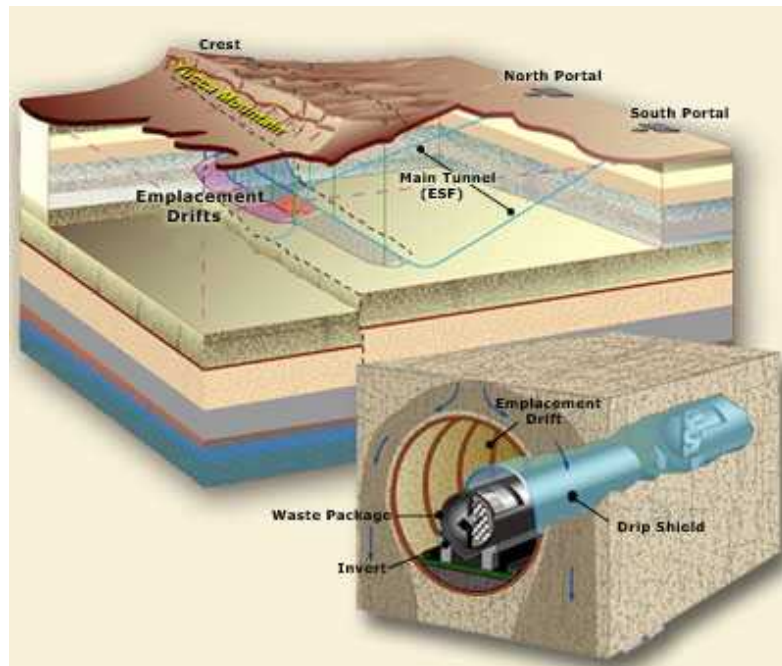


# Low, Intermediate, and High Level Waste Training Program for Korea Hydro & Nuclear Power (KHNP)



Yucca Mountain Repository

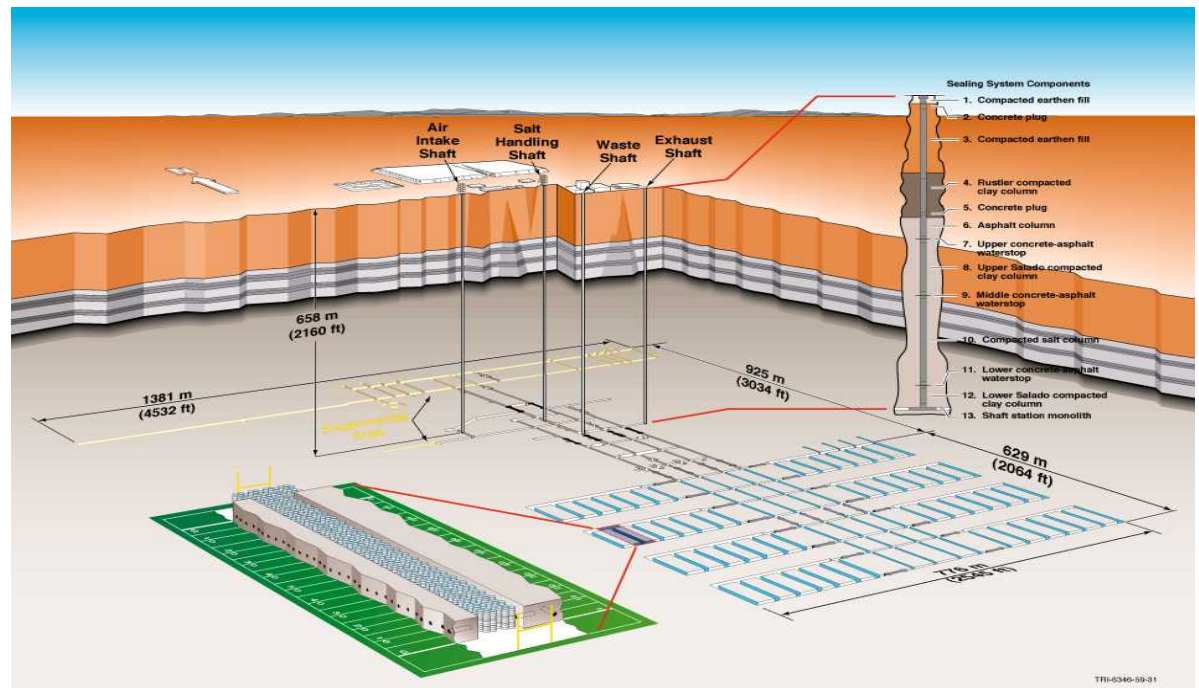
**Kay Vugrin, Ph.D.**  
**Project Manager**  
**Sandia National Laboratories**

**August 28, 2007**

**SAND 2007-xxxP**

# Outline

- Objective
- People
- Curriculum



Waste Isolation Pilot Plant



# Training Program Objective

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- Provide KHNP staff with tools required for development of LILW and HLW repositories in the Republic of Korea
  - Advanced knowledge
  - Capabilities
  - Experience
- Sandia National Laboratories will draw on more than 30 years expertise in repository science (WIPP and YMP) to complete the training program



# Sandia Personnel

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- Management Team
  - Dave Kessel, Carlsbad Programs Group Senior Manager
  - Moo Lee, Performance Assessment and Decision Analysis Department Manager
  - Kay Vugrin, Project Manager
- More than 100 Sandia National Laboratories staff members and contractors in Carlsbad, NM (WIPP), Las Vegas, NV (YMP), and Albuquerque, NM will support this training effort



# The KHNP Trainees

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- **Six trainees from KHNP**

- Jin-Goo Huh
- Dong-Hyeun Hwang
- Sang-Gyoo Joo
- Byeoung-Jik Kim
- Eung-il Lee
- Gang-Su Sung





# The KHNP Trainees

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# Curriculum

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- The twelve month curriculum includes classroom lecture and on-the-job training activities
- The schedule calls for 31 weeks in the classroom and 20 weeks of on-the-job training
- This week is the fourteenth week of the training program

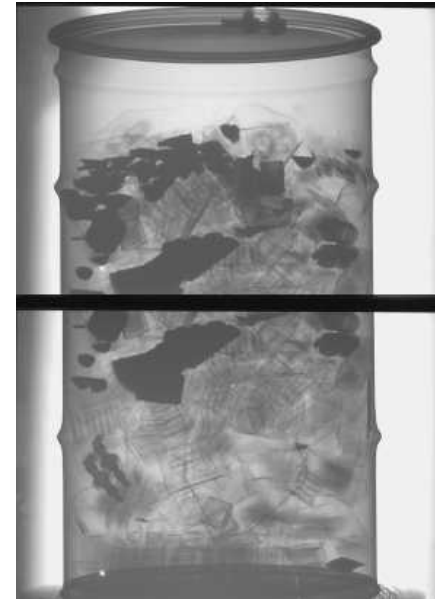




# Completed Training Topics

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- Quality Assurance
- Regulatory History and Issues
- Ionizing Radiation
- Waste Characterization and Classification



Real-time Radiography



# Completed Training Topics

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- Repository Siting and Characterization
  - Siting Criteria
  - Site Characterization
  - Data Integration



Geomechanics Test



Drilling Rig

# Completed Training Topics

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- Packaging and Transport
  - Regulatory Framework
  - Package Development
  - Risk Analysis
  - Operations



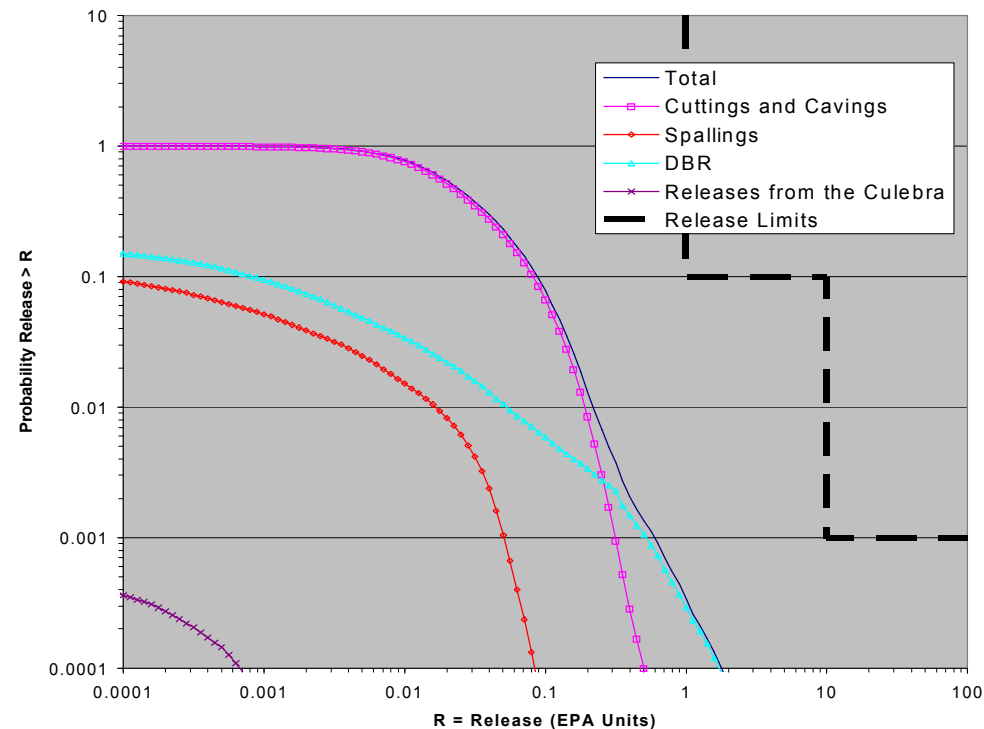
Waste Transport to WIPP





# Completed Training Topics

- Assembly of a Safety Case
  - Features, Events, and Processes
  - Waste Inventory Issues
  - Performance Assessment Methodologies
  - Numerical Models in Performance Assessment



Calculated Releases

# Future Training Topics

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- Environmental Monitoring
- Repository Design, Operations, and Closure Plans
- Interim Storage of Spent Fuel
- Transportation of High Level Waste
- Safeguards and Nonproliferation



Package for  
Spent Fuel Storage  
and Transport





# On-the-Job-Training

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- Tour WIPP, YMP, and Nevada Test Site Facilities
- Stakeholder Interactions (e.g., peer review)
- Additional activities will include technical job assignments





# Questions?

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**TWILIGHT VIEW OF THE 25 FT. TUNNEL BORING MACHINE ENTERING THE NORTH PORTAL**