
Ameren
Dry Fuel
Storage Project
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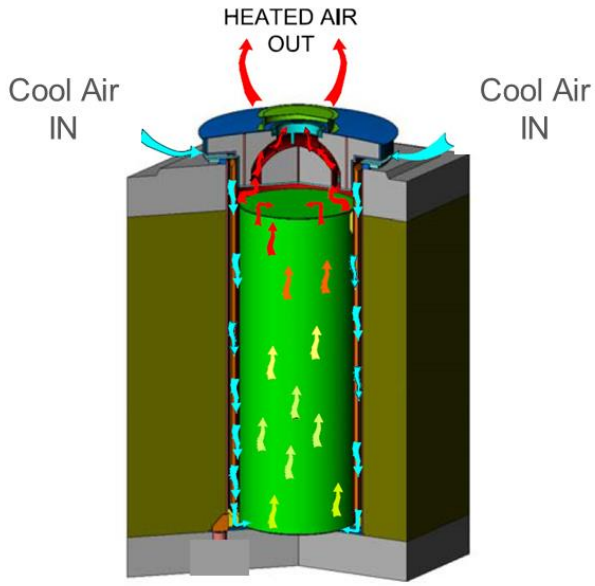
Project Overview

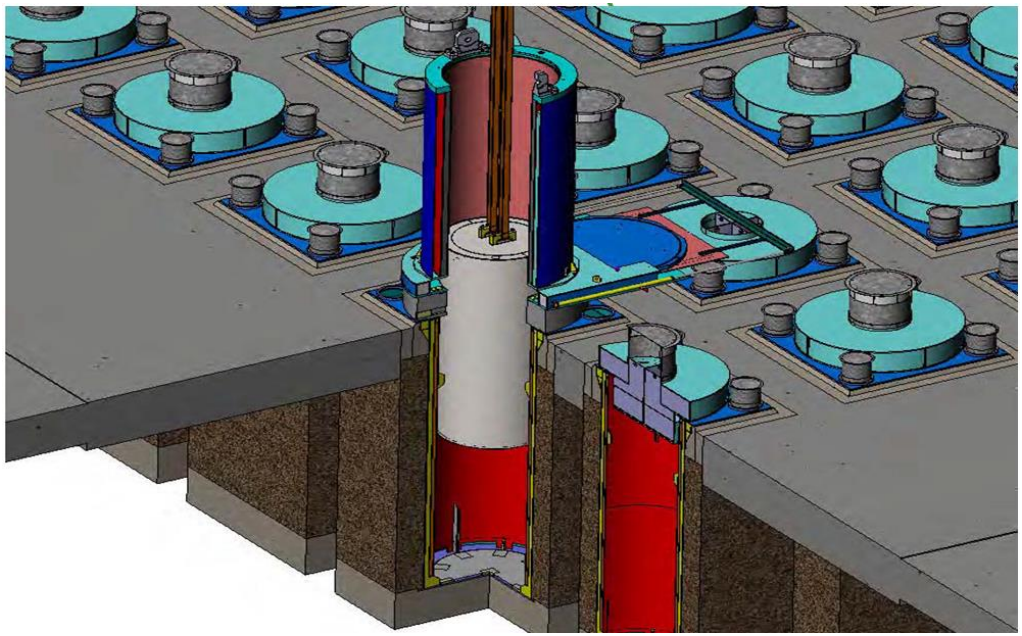
- Interim storage for spent fuel
- In accordance with Nuclear Waste Policy Act of 1982
- All spent fuel currently stored in on-site pool
- Provides storage capacity in support of continued plant operation through life extension

Project Licensing

- General contractor Holtec International submitted the project design for Nuclear Regulatory Commission (NRC) approval
- NRC issued a Certificate of Compliance to Callaway
- Callaway used a general license, which allows a site to use any cask certified by the NRC, as long as the site meets the conditions specified in the Certificate of Compliance

Cask Design





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Pad Design

- Underground Maximum (UMAX) storage
- Robust design and resistant to severe weather
- Increased security based on only the lid being accessible
- Top and bottom pad are 33 inches thick with 17 feet of concrete between them
- Reduced radiation exposure due to concrete and soil shielding

Radiation Dose at the Pad

0.2 millirem per hour

- Dental x-ray 0.5 mrem each
- Airplane ride 0.5 mrem/hour
- Chest x-ray 10 mrem each
- Head CT 200 mrem each

Project Status

The project goal is to load/store 6 MPCs by October 2015

- Four NRC Dry Runs Complete:
  - ✓ NRC Dry Run #1 (May 19th) – Demonstration of welding and leak testing
  - ✓ NRC Dry Run #2 (June 2nd) – Demonstration of hydrostatic testing, blowdown, drying, and helium backfill
  - ✓ NRC Dry Run #3 (July 14th) – Outside pad operations
  - ✓ NRC Dry Run #4 (August 3rd) – Loading mock fuel into the first multipurpose canister (MPC) to be loaded
- Project loading began August 23, 2015
- Scheduled completion date for loading/storing six MPCs in UMAX is mid-October.
- Future loading campaigns are planned once every three years (non-refuel outage year)

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Loading Campaigns

- Moving fuel from pool to cask is called a campaign
- Campaigns will occur approximately every 3 years
- A mix of newer and older fuel will be moved to the cask

Vertical Cask Transporter (VCT)

- Used to move the loaded multipurpose canister (MPC) in the shielded transfer cask from the transfer pad to the UMAX pad and lower the MPC into the cavity enclosure container
- Single point failure proof (ie can’t drop canister)
- Weighs approximately 209,550 pounds

Cask Handling Crane Trolley

Variable Elevation Cask Staging Platform (VECASP)

Used to prevent the cask handling crane hook from being placed in the Spent Fuel Pool water

Safety Brief

- Our highest value – three types
  - **Nuclear** – our employees see to that every day – security is highly trained and well armed
  - **Radiological** – not entering any radiological areas today
  - **Industrial** - This is an industrial environment
    - Hazards
      - Trip hazards such as floor grating and concrete curbs
      - Loose gravel
      - Don’t touch or bump any equipment
      - Do not walk and write, record, or video – STOP
    - Personal Protective Equipment will be issued
      - Hard hats
      - Safety glasses
      - Earplugs in designated areas

Security Brief

- Stay with your assigned escort at all times – within sight. If you become separated from your escort, immediately contact Security or the nearest plant employee.
- Ensure your visitor badge is displayed in plain view at all times.


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