



NRC and the Proposed DOE High Level Waste Repository

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Background

- Nuclear Waste Policy Act of 1982, as amended, directed Department of Energy (DOE) to develop a geological repository
- Nuclear Waste Policy Amendments Act of 1987 directed DOE to focus on development of a geological repository at YM, Nevada

Background

- Nuclear Waste Fund fees collected on nuclear power generation; fees set to fully recover estimated cost of building and operating a geological repository
- U.S. Government liabilities due to legal actions by utilities approaching \$7B due to the Government not taking possession of the spent nuclear fuel (SNF) from commercial nuclear power plants (NPPs)

Background

- Commercial nuclear power is on the verge of a significant expansion due to concerns about pollution, greenhouse gas emission, global warming, and increasing electrical power needs
- SNF is currently stored at the NPPs and the amount stored is rising each year

Overview

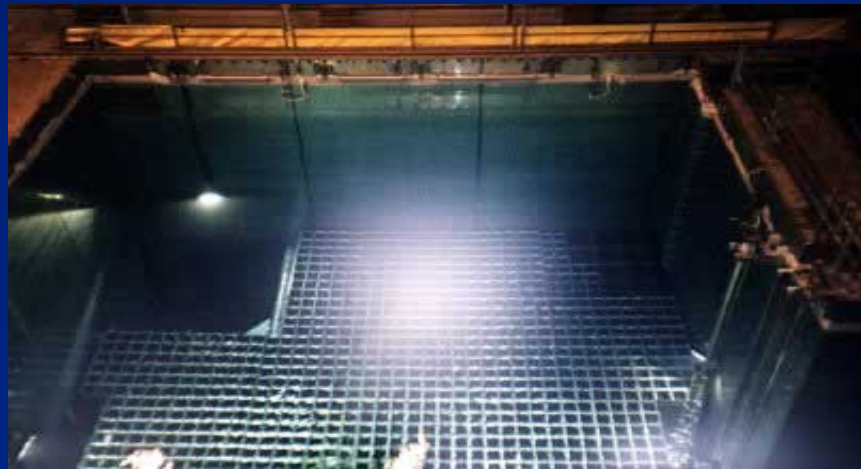
- Approximately 100 NPPs in U.S., which account for roughly 20% of electricity



Calvert Cliffs NPP, source: NRC

Overview

- NPPs emit no greenhouse gases; but they generate SNF
- SNF is first stored in the pools after discharge from the reactor



Diablo Canyon NPP SFP, source: NRC

Overview

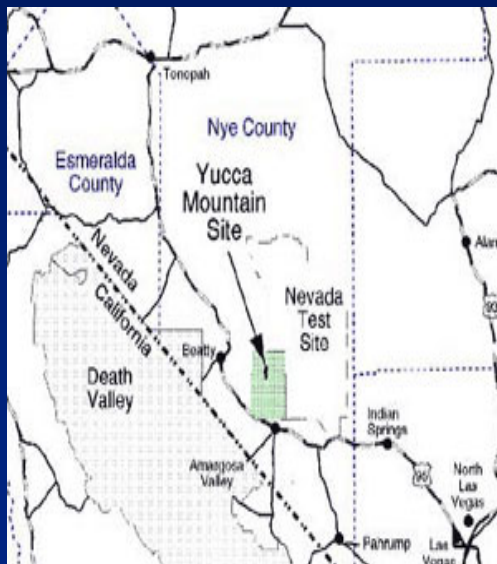
- After 5+ years, SNF may be moved to on-site dry storage



Prairie Island ISFSI, source: NRC

Overview

- DOE is preparing a license application for a repository at YM, Nevada.



Source: NRC



NRC's Role At YM

- Independent regulator
- Primary mission is to protect public health and safety and the environment
- Must decide whether to authorize DOE to construct the proposed repository

NRC's Role At YM

- If authorization is granted, must assure DOE complies with the rules
- Later, must decide whether to license DOE to receive, possess, and dispose SNF

Roles Of Other Agencies At YM

- Department of Energy
 - Characterize site; prepare Environmental Impact Statement; prepare license application
 - Subject to NRC authorization: design, construct, and, later, operate repository safely; provide long-term oversight



Roles Of Other Agencies At YM

- Environmental Protection Agency
 - Establish environmental standards that NRC must use to decide whether to authorize the potential repository



NRC - Decide Whether To Deny Or Authorize Construction Of A Repository By...

- Reviewing all information objectively
- Making open decisions based on the facts
- Maintaining an open, public process



NRC – The Commission

- Five NRC Commissioners
 - Appointed by the President
 - At most three of any one political party
 - Five-year term of service
 - Chairman designated by the President
 - Accomplished scientists, engineers, attorneys



NRC - Professional Staff

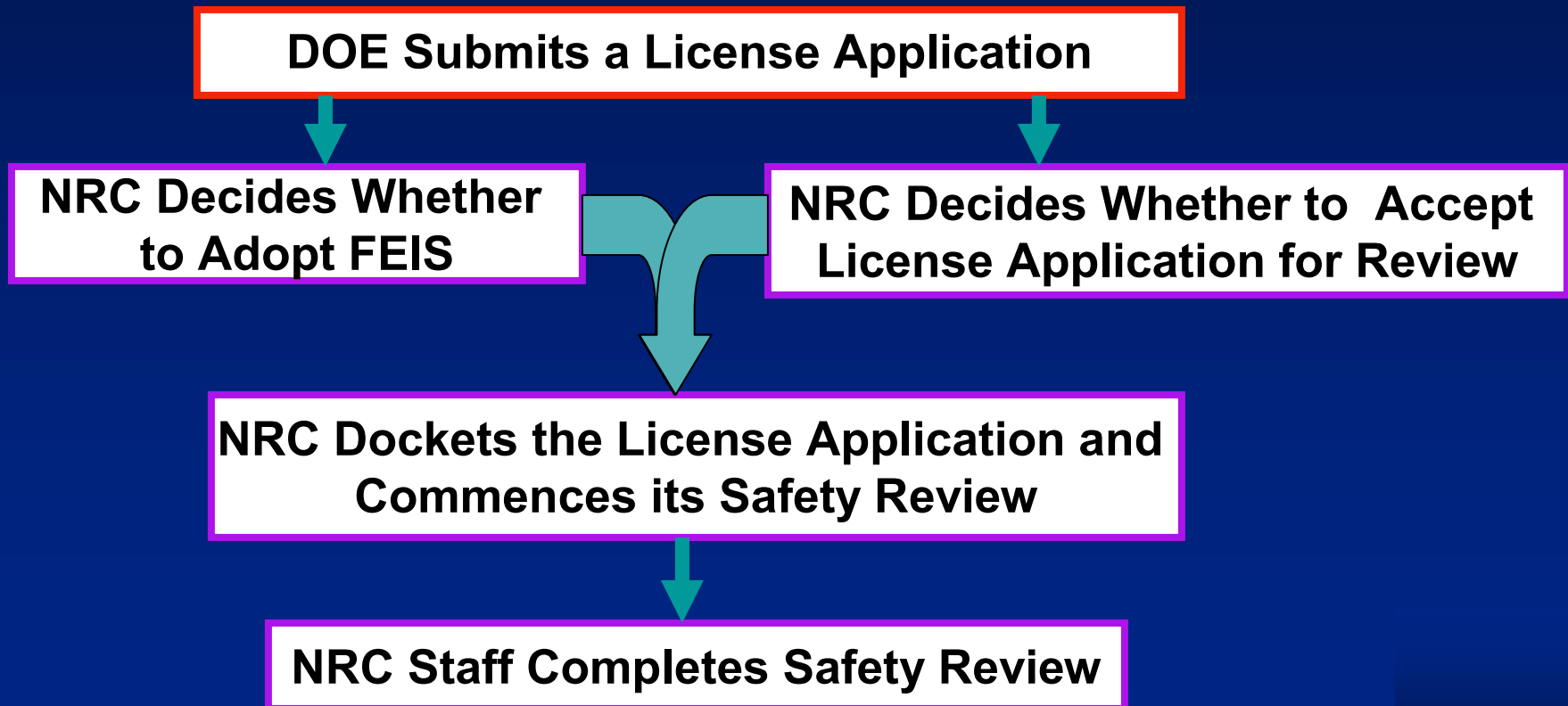
- Carry out Commission policies
- Recommend health & safety regulations
- Evaluate license applications
- Advise Commission on safety and environmental matters
- Communicate with the public



NRC - Atomic Safety And Licensing Board Panel

- Independently conducts all licensing and other hearings for the Commission usually with three-judge Hearing Boards
- Panel also manages activities of the Licensing Support Network and maintains the Data Management System

NRC - Activities Before A Hearing On YM



NRC - Possible Outcomes

- Deny the application
- Authorize construction of the repository subject to conditions
- Authorize construction of the repository

Summary

- Any NRC decision on a potential license application for a repository will:
 - be based on NRC staff's comprehensive, independent safety review
 - Include a full and impartial public hearing that follows formal, well-established rules to ensure an open, objective decision
- Questions or comments?