



Background

United States Nuclear Regulatory Commission

Office of Public Affairs

Washington DC 20555

Telephone: 301/415-8200 E-mail: opa@nrc.gov

Licensing a High-Level Radioactive Waste Repository at Yucca Mountain

Background

The Nuclear Waste Policy Act of 1982 and the Nuclear Waste Policy Amendments Act of 1987 specify a detailed approach for the disposal of high-level radioactive waste. Under these Acts:

- The Department of Energy (DOE) has the responsibility to construct and operate a geologic repository, while the Nuclear Regulatory Commission (NRC) has the responsibility to regulate geologic disposal of the waste.
- The disposal of high-level radioactive waste requires a determination of acceptable health and environmental impacts over thousands of years.
- Ultimate disposal of the waste is to be in solid form in a licensed, deep, geologic structure.
- DOE is directed to investigate only one potential high-level waste repository at Yucca Mountain, Nevada.

The NRC is responsible for reviewing DOE's application for a license to build and operate a high-level radioactive waste disposal facility at Yucca Mountain. While the Environmental Protection Agency (EPA) has responsibility for developing standards to protect the environment from offsite releases from radioactive materials in the repository, the NRC has issued technical criteria that incorporate EPA's standards to evaluate DOE's application to determine if the facility, as proposed, will protect public health and safety and the environment.

Publicly available regulations and guidance materials form the basis for NRC's review, which will include a comprehensive technical evaluation by the agency's staff, a public hearing before an Atomic Safety and Licensing Board (ASLB) and a final decision by the Commission.

Under the Nuclear Waste Policy Act, the NRC must issue a decision on a construction authorization in three years, with a possible extension to four years. The decision will determine whether DOE may begin construction of the repository.

Licensing Support Network and ASLB

To provide for efficient discovery, NRC requires all potential participants in the Yucca Mountain proceeding to make their documents available to other potential participants in electronic form through the publicly available, web-based Licensing Support Network (LSN). The LSN can accommodate up to 40 million pages of material. It is available for anyone to access documents, at <http://www.lsnnet.gov>.

Six months before submitting its license application, DOE must certify that documents on the Yucca Mountain disposal facility are electronically available. On June 30, 2004, DOE certified its documents were available.

Thirty days later, on July 30, the NRC certified that its documents were electronically available to the LSN, as required by regulation.

The NRC appointed a Pre-License Application Presiding Officer on July 7, 2004, who shortly thereafter appointed three persons to serve on the ASLB that will decide disputes brought up by parties or potential parties regarding submittals to the LSN. The ASLB ruled on August 31, 2004, that the DOE certification failed to meet NRC regulations.

Although NRC regulations require that, within 90 days of DOE's submittal, potential parties and interested governmental participants must make their documents electronically available, the ASLB's August 31 ruling said that these potential parties and participants need not make their documents available until 90 days after DOE complies with NRC's regulations and recertifies that it has made all of its documents available on the central LSN site.

Construction Authorization Review

When DOE submits a license application, NRC will conduct a preliminary review to determine if it contains enough information for the NRC to formally accept for review, or "docket," the application. If the NRC docket the application, it will publish a Federal Register notice announcing the docketing and an opportunity for potential parties and interested governments to request permission to participate in the hearing. A notice of whether the NRC staff finds it practicable to adopt the DOE final environmental impact statement (FEIS) will also be published.

The Nuclear Waste Policy Act directs the NRC to adopt to the extent practicable the Yucca Mountain FEIS already prepared and made publicly available by DOE.

Interested parties have 30 days from the date of the Federal Register notice to request permission to participate in a hearing, which will be a formal, trial-type process. In order to be accepted as a party to the hearing, an individual or group must show that they have "standing," submit at least one litigable "contention," and show compliance with NRC document availability requirements. To have standing, a potential party would have to show that they could be harmed or have a stake

in the outcome of the proceeding. A litigable contention would be a specific concern or issue that the potential party seeks to bring before the ASLB for litigation in the proceeding, usually alleging that the applicant has failed to satisfy some legal or regulatory requirement. Document availability requirements are in NRC regulations regarding the LSN.

Nevada (as the host state) and Nye County (as the host county), for example, automatically have standing, but must submit at least one litigable contention in order to be parties to the proceeding. Other affected local governments, counties or Indian Tribes may also become parties to the proceeding if they meet the applicable requirements.

Interested states, counties, local governments, and Indian tribes can also seek permission to participate as “interested governmental participants,” but would not need to file a litigable contention. An ASLB will be appointed to conduct the hearing. The ASLB will decide which petitioners satisfy requirements to participate as parties or interested governments in the hearing.

Prehearing Conference

The Licensing Board will hold a prehearing conference in Las Vegas, Nevada, to discuss any petitions filed. At the prehearing conference sessions, potential parties will present information to the Board on why they believe they have standing and litigable contentions and therefore should be admitted as parties. Participation in the prehearing conference will be limited to potential parties and interested governmental participants although members of the public may observe.

Other prehearing conferences could be held in Las Vegas or at the NRC hearing room in Rockville, Maryland.

NRC Safety Review

If the application is docketed, the NRC technical staff in the NRC’s Office of Nuclear Material Safety and Safeguards will begin a detailed, thorough and comprehensive technical review. NRC regulations governing this review are in Title 10 of the Code of Federal Regulations, Part 63 (10 CFR 63). It is likely that, while reviewing the application, NRC staff will request additional information from DOE to help clarify the application submittal. These requests and DOE’s responses will be publicly available unless they contain sensitive security, privacy or proprietary information.

The NRC staff will issue a Safety Evaluation Report containing its findings on the application and whether the proposed disposal facility will meet NRC regulations and protect public health and safety.

Hearing

One or more ASLBs will hear evidence and issue a decision on contested safety or FEIS adoption issues. Participants will include DOE, the NRC staff and any parties and interested governments that have been admitted to the proceeding. An ASLB may also hold limited appearance sessions, at which members of the public may make brief oral statements concerning the proposed disposal facility, and invite members of the public to submit written statements.

At the hearing, parties and interested governments will present witnesses, conduct cross-examinations and make oral arguments before the ASLB regarding the contested safety and environmental issues. The NRC staff position will be based on its Safety Evaluation Report on the facility and FEIS adoption review. DOE, the NRC staff, and admitted parties and interested governments will submit written testimony and exhibits to the ASLB and those materials will become part of the public record of the proceeding (unless they contain sensitive information).

The ASLB is likely to issue several decisions on contentions before the final decision is issued. Parties may appeal these decisions to the Commission.

Additional information on the regulation of high-level waste is available on the web at <http://www.nrc.gov/waste/hlw-disposal.html>.

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