



Recommendation No. 108

January 25, 2000

Yucca Mountain Draft Environmental Impact Statement

Background

In 1980, President Carter declared that the safe disposal of radioactive waste generated by defense and commercial activities was a national responsibility. The subsequent Environmental Impact Statement (EIS) specified that DOE would pursue the mined geologic disposal alternative. In 1982, Congress enacted the Nuclear Waste Policy Act (NWPA) to establish a process for the Secretary of energy to recommend a location to the President.

By 1986, the list of potentially acceptable repository sites narrowed to three: Deaf smith County, Texas; Hanford, Washington; and Yucca Mountain, Nevada. Congress amended NWPA in 1987, directing DOE to characterize only Yucca as a potential location. Since then, DOE has pursued in-depth engineering and scientific research and technical studies to support the NWPA process. NWPA also required the development of an EIS. The act states that the results of the research as well as the EIS would be used by the Secretary to submit a recommendation to the President in 2001. If accepted, the Nuclear Regulatory Commission would license Yucca.

DOE issued a notice of intent to prepare the EIS in 1995. Following an extended scoping and preparation process, the draft EIS was released for public comment on November 19, 1999. The action proposed by DOE is to construct, operate, monitor and eventually close the repository, with a disposal limit of 70,000 MT of heavy metal (MTHM). All aspects of the proposed action were evaluated, including packaging and transportation. In addition, as required by law, a no-action alternative containing two scenarios was included. Scenario 1 assumed that waste material will remain at 72 commercial and 5 DOE sites under institutional control for 10,000 years and evaluated the hypothetical consequences. Scenario 2 assumed the material will remain at the facilities for 10,000, but with institutional control for only 100 years.

After reviewing the draft EIS, discussing issues with top national scientists and DOE, and hearing the views of stakeholders around the country, the Savannah River Site Citizens Advisory Board has the following comments and recommendations:

Comments

1. While it is recognized that the no-action alternative be addressed, it is acknowledged that the judged consequences are highly speculative and that the actual impact of no action could well be many times greater than that presented in the draft. A particular example is the "sealed source" waste described in Appendix A Section A.2.5.3. The assumption that this material will always be placed in standard waste packages is unrealistic. Thus, the no-action case underestimates the potential for its deterioration, with resultant releases of actinides. Such releases would seriously multiply the consequences of the no-action case to both human mortality and environmental contamination throughout the DOE/commercial sites and their environs across the entire country.
2. The SRS CAB understands that no repository can totally eliminate every risk to future generations and/or the environment. However, failure to isolate nuclear wastes so as to minimize their exposure to people and to conditions that could cause deterioration would be totally irresponsible and therefore is unacceptable in the CAB's opinion. Furthermore, plans for a geologic repository have been and continue to be a cornerstone of the nation's nuclear waste management program. Failure to urgently move forward with its construction and subsequent operation would undermine the integrity of the entire program. Even the postponement of a decision would have a similar impact. As a result, stakeholder support for many aspects of the waste management activities, such as nuclear material integration, could be lost.
3. The SRS CAB understands that the legislated 70,000 MTHM limit for the repository is arbitrary and does not reflect anticipated physical limitations. This limit will necessitate a second site being developed so that all of the country's projected materials were safely disposed. CAB believes that the most expedient, most efficient, and lowest risk course may well be the use of a single repository site and that the 70,000 MTHM limit is a potential obstacle to seeking the

- optimum waste course of action.
4. The schedule and mode of movements of wastes, both from commercial and DOE sites, should be one that minimizes the risks and costs to all involved entities.

Recommendation

The SRS CAB recommends that DOE:

1. Open Yucca Mountain on schedule as outlined in the EIS.
2. Initiate steps that would lead to congressional reconsideration of the 70,000 MTHM repository limit.
3. To more correctly assess the true risks of the no-action analysis, re-evaluate the proposed management and containment of "sealed Source" and other general waste.
4. Plan a comparative cost-benefit analysis of commercial SNF, DOE SNF, and DOE HLW to establish the optimum order of shipment of materials to the repository. This undertaking should not be allowed to interfere with the timely release of the final EIS.

Agency Responses