

February 27, 2002

The Honorable John M. Shimkus  
United States House of Representatives  
Washington, D.C. 20515

Dear Congressman Shimkus:

I am responding on behalf of the Nuclear Regulatory Commission (NRC) to your letter of December 5, 2001. You requested a comparison of the Yucca Mountain Project's preparation for a site recommendation for a potential repository at the Yucca Mountain site with that of a "typical/comparable nuclear industry facility at the same stage of development," focusing on the level and quality of information assembled at similar stages. Although there are similarities and differences between licensing a potential repository and licensing nuclear power plants, the site recommendation process is unique to the geologic repository program in that it is a formal process occurring prior to the docketing of a license application.

As you know, in 1982, the Congress identified disposal, in one or more deep geologic repositories, as the national policy for managing high-level radioactive waste and spent nuclear fuel. The Nuclear Waste Policy Act (the Act), specified a sequence and timetable for siting and licensing decisions and provided for participation and funding for the affected State, local and tribal governments. Later amendments to the Act in 1987 and changes brought about by the Energy Policy Act of 1992 resulted in the nation's focus on a single candidate site at Yucca Mountain. Under the Act, the Department of Energy (DOE), the potential licensee, is responsible for conducting site characterization activities at Yucca Mountain. DOE also is responsible for conducting a site evaluation process and determining whether the site is suitable for recommendation to the President. NRC, among other things, is required to interact with DOE during the pre-licensing site characterization phase of the geologic repository program and is to provide preliminary comments in connection with any site recommendation on the proposed geologic repository. The function of NRC's preliminary comments is to provide the President and the Congress with NRC's views on the extent to which DOE's at-depth site characterization analysis and waste form proposal seems to be sufficient for inclusion in a license application for the site. Thus, under the Act, it is DOE's responsibility to define the level and quality of information necessary for site recommendation. NRC's comments focus on the information required for licensing. As required under Section 114(a)(1)(E) of the Act, the NRC recently provided its preliminary comments for inclusion in DOE's site recommendation (Enclosure 1).

For nuclear reactors, a comparable process in terms of pre-application interactions would be the pre-construction permit inspection program that occurs after NRC receives notification of an applicant's intention to build a nuclear power plant. The program continues until the issuance of a construction permit. However, the focus of the pre-construction permit program is on the applicant's quality assurance program as it bears on the ongoing design and procurement efforts. The emphasis shifts to the level and quality of data when an applicant submits an application for a construction permit.

Thus, the repository program is unique in that the Act requires extensive data collection and DOE/NRC interaction to support a potential site recommendation. These activities occur years before a determination is made on whether a license application will be submitted to NRC.

Concerning your request to describe the typical practice in the nuclear industry for siting, construction, and operating phases of a facility, there have been traditionally two licensing actions for a reactor -- a construction permit and an operating license (and, as a practical matter, a third phase associated with decommissioning). I have enclosed for your information a copy of a detailed discussion of the regulatory framework and processes that govern the licensing of nuclear power plants (Enclosure 2). This text is taken from an attachment to "SECY-01-0188--Future Licensing and Inspection Readiness Assessment." The information requirements for the various stages are provided in 10 C.F.R. Parts 50 and 100.

For comparison, a potential geologic repository licensed under NRC's recently promulgated regulations at 10 C.F.R. Part 63 would undergo four distinct licensing phases. These are construction authorization, a license to receive and possess the waste, a license amendment for permanent closure, and license termination.

Congressional direction has resulted in other factors that make the sequence and timing of licensing a potential repository distinctly different from that of other major nuclear facilities. For example, the Act limits the time NRC has to decide whether to authorize construction of a potential repository; the initial period allowed is three years. Although the Commission has taken a number of steps -- both procedural and substantive -- over the years to streamline its licensing and hearing processes to ensure timely and efficient decisionmaking, no similar statutory constraints govern other NRC licensing determinations.

In summary, it is difficult for us to fulfill your request to make a comparison between the level and quality of information required at the time of site recommendation to that required for a typical nuclear facility because the site recommendation process occurs prior to the docketing of an application. Although our extensive experience in licensing nuclear power plants is helpful in determining the information needs for licensing a potential repository, it is DOE's responsibility to determine the level of information needed for a site recommendation.

If you have any questions or comments, please contact me.

Sincerely,

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Richard A. Meserve

Enclosures:

1. Letter from Chairman Meserve, NRC, to Robert G. Card, DOE, November 13, 2001
2. Executive Summary, Abbreviations and pp. II-1 - II-12 of Attachment to "SECY-01-0188--Future Licensing and Inspection Readiness Assessment," dated October 12, 2001