ABSTRACT

The necessary authorization for the U.S. Department of Energy’s (DOE) Office of Civilian Radioactive Waste Management (OCRWM) to submit a License Application (LA) is contingent upon the policy process defined in the Nuclear Waste Policy Act, as amended (NWPA), with some steps yet to occur. In spite of this uncertainty, the DOE must take prudent and appropriate action now, and over the next several years, to prepare for submittal of an application and to facilitate the U.S. Nuclear Regulatory Commission (NRC) review of this application, if the Yucca Mountain site is recommended and approved for repository development.

One of these steps the DOE has taken involves working with the NRC’s Advisory Review Panel to develop Licensing Support Network (LSN) requirements and guidelines. The NRC has made a prototype of the LSN web page available at www.LSNNET.gov. The OCRWM part of the LSN currently has an indefinite life cycle and may need to remain in existence until the repository is closed, which could be as long as 325 years.

BACKGROUND

The Nuclear Waste Policy Act, as amended (NWPA) (1, 2), established the policy process and defined the steps that must be taken before the U.S. Department of Energy (DOE) can submit a License Application (LA) to the U.S. Nuclear Regulatory Commission (NRC) for authorization to construct a repository at the Yucca Mountain site in Nevada. First, the Secretary of Energy must decide whether to recommend to the President that the President approve the site for development as a repository. Second, if the Secretary recommends approval of the site, and if the President considers the site qualified for application for a construction authorization, the President must submit a recommendation to Congress. Third, if the President recommends approval of the site to Congress, the designation of the Yucca Mountain site for a repository must be approved as required by the NWPA.

The necessary authorization for Office of Civilian Radioactive Waste Management (OCRWM) to submit an LA is contingent upon the policy process defined in the NWPA, with some steps yet
to occur. In spite of this uncertainty, the DOE must take prudent and appropriate action now, and over the next several years, to prepare for submittal of an application and to facilitate NRC review of this application, if the Yucca Mountain site is recommended and approved for repository development.

To assist it in preparing for repository licensing, the NRC chartered an Advisory Review Panel (ARP) in 1989 made up of “parties, potential parties, and interested governmental participants” to the potential licensing proceeding. ARP members include the NRC; the DOE; the state of Nevada; the affected units of local government in Nevada; the National Congress of American Indians; the Nevada Nuclear Waste Task Force; and a coalition of industry groups.

In 1989, in response to requirements based on the NWPA, one of which set a three-year period for NRC review of the LA, the NRC finalized 10 CFR 2 Subpart J (3), in a negotiated rule-making process that called for the establishment of a centralized, computerized, Licensing Support System (LSS). That rule has since been amended several times, and the concept of a centralized “mainframe” LSS was changed to a distributed, Internet-based Licensing Support Network (LSN) in 1998. The rule was revised most recently in 2001 to require the DOE’s initial certification of the LSN six months prior to submission of the LA.

**LSN, LIKE A REPOSITORY, IS LONG TERM**

Over the past decade, the DOE has worked with the ARP to develop LSN requirements and guidelines. The NRC has made a prototype of the LSN web page available at www.LSNNET.gov. The Office of Civilian Radioactive Waste Management (OCRWM) part of the LSN itself currently has an indefinite life cycle and may need to remain in existence until the repository is closed, which could be as long as 325 years, with an additional 100 years to maintain institutional controls. More detailed information on the OCRWM LSN is presented below.

**L=LICENSING**

Not unlike regulation of commercial nuclear power reactors in this country, the NWPA gives the NRC authority over construction of a geologic repository, and, after construction, possession of nuclear materials. Hence DOE is required to submit an LA to the NRC for authorization to construct a repository at the Yucca Mountain Site in Nevada, should the site be found suitable, and to update that application prior to repository operation. Upon submittal of the LA, the DOE will become an NRC applicant, under 10 CFR 63 (4).

**S=SUPPORT**

Section 114(d) of the NWPA requires the NRC to issue a final decision approving or disapproving issuance of the construction authorization for a geologic repository for high-level waste (HLW) within three years of the “submission” of the DOE’s LA. The NRC anticipated that the HLW proceeding would involve a substantial number of documents created by well-informed parties regarding numerous, complex issues. The NRC believed that the LSN could facilitate timely NRC technical review and timely petitioner “discovery type” review of the DOE’s LA by providing electronic access to relevant documents before the DOE submits the LA. Additionally, the NRC believed the LSN could supplant the need for the traditional
discovery process used in NRC proceedings involving the physical production of these documents after the LA is docketed (power reactor licensing proceedings applied discovery after LA submittal). Finally, the NRC believed that early provision of these documents would allow for a thorough, comprehensive technical review of the LA by all parties and potential parties to the HLW licensing proceeding, resulting in better-focused contentions in the proceeding.

NRC regulations do not define “discovery.” According to Black’s Law Dictionary (5), the relevant definition of discovery for trial practice is: “the pre-trial devices that can be used by one party to obtain facts and information about the case from the other party in order to assist the party’s preparation for trial. Under Federal Rules of Civil Procedure … tools of discovery include: depositions upon oral and written questions, written interrogatories, production of documents or things, permission to enter upon land or other property, physical and mental examinations, and requests for admission.” Thus, for the repository program, discovery generally means “production of documents.”

N=NETWORK

The NRC has recognized an electronic information management system, of which the LSN is a part, will assist its licensing proceedings in many ways: providing an LSN with full-text search and retrieval access to the relevant documents; providing for electronic submission of filings by the parties as well as orders and decisions of the Atomic Safety and Licensing Board during the licensing proceeding; and providing access to an electronic version of the HLW repository licensing proceeding docket.

The NRC’s definition of the LSN in 10 CFR 2.1001 (3) has been adopted for development of the OCRWM LSN: “the combined system that makes documentary material available electronically to parties, potential parties, and interested governmental participants to the proceeding for a license to receive and possess high-level radioactive waste at a geologic repository operations area pursuant to part 60 or 63 of this chapter, as part of the electronic docket or electronic access to documentary material, beginning in the pre-license application phase.”

THE OCRWM LSN

Although OCRWM’s current collection of federal records is more than 1 million documents and growing, not all of these records are expected to meet the NRC’s definition of “documentary material” in 10 CFR 2.1001, that must be made available in the LSN:

- any information upon which a party, potential party, or interested governmental participant intends to rely and/or cite in support of its position in the proceeding for a license to receive and possess high-level radioactive waste at a geologic repository operations area pursuant to part 60 or 63 of this chapter;

- any information that is known to, and in the possession of, or developed by the party that is relevant to, but does not support, that information or that party’s position; and
• all reports and studies, prepared by or on behalf of the potential party, interested governmental participant, or party, including all related “circulated drafts,” relevant to both the license application and the issues set forth in the Topical Guidelines in Regulatory Guide 3.69, regardless of whether they will be relied upon and/or cited by a party. The scope of documentary material shall be guided by the topical guidelines in the applicable NRC Regulatory Guide.

Screening processes, both human and electronically assisted, are currently under development to meet these regulatory requirements.

CONCLUSIONS

Submittal of an LA to the NRC for authorization to construct a repository at the Yucca Mountain site is, at this point, only a potential future action by the DOE. In spite of this uncertainty, the DOE must take prudent and appropriate action now, and over the next several years, to prepare for timely submittal of an application and to facilitate NRC review of this application, if the Yucca Mountain site is recommended and approved for repository development.

This is particularly true given the need for the DOE to develop, load, and certify the LSN in compliance with NRC requirements in preparation for a licensing proceeding. The NRC currently requires that the DOE’s system be certified six months prior to submitting the LA. Development of the OCRWM LSN is currently underway.

REFERENCES


