



POLICY ISSUE

(Notation Vote)

August 9, 1996

SECY-96-178

FOR: The Commissioners

FROM: James M. Taylor
Executive Director for Operations

SUBJECT: ACTION PLAN TO ADDRESS OUTSTANDING LSS ISSUES

PURPOSE:

In SECY-96-020, Licensing Support System Program Administration - Semiannual Report, issued on January 30, 1996, the Licensing Support System (LSS) Senior Management Team (SMT) committed to advise the Commission on outstanding issues related to the LSS and to develop an action plan to address those issues. The issues cover the need to refocus the Department of Energy (DOE) on the documentation needed for its license application for a mined geologic repository for the storage of high level radioactive waste and the need to reexamine the foundations and assumptions upon which the 10 CFR 2, Subpart J (the LSS rule) is based.

The LSS concept was developed in an environment that was substantially different than the current repository licensing activities and information systems technologies available to facilitate them. Time and events have overtaken the original technical assumptions concerning design and maintenance of the LSS. Continuing to develop the LSS based on the technical assumptions embodied in the LSS rule and to continue LSS-related activities under the rule as it is currently written would not be an efficient use of scarce resources. However, the primary LSS functions outlined in the rule reflect NRC and other participant interests and expectations as well as efficiencies in the adjudicatory process and should be preserved.

The SMT has identified a series of strategies to resolve outstanding LSS issues. The SMT identified those issues by reexamining the LSS rule in relation to the status of repository licensing activities and advances in computer technology. The SMT presents those strategies for the consideration of the Commission and requests guidance on whether or not to pursue any or all

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of these actions. Following the Commission's decision on these strategies, the SMT would obtain input from the members of the LSS Advisory Review Panel (LSSARP) and prepare a subsequent paper for the Commission that identifies alternative implementation approaches and LSSARP views with regard to each approach.

DOE has informed us that they intend to initiate substantive procurement activities in February 1997 for an LSS based on the existing rule. Depending on guidance resulting from Commission action on the subsequent paper, DOE may need to be told to alter this course of action. Therefore, it is important to provide input on this to DOE by the end of this year.

BACKGROUND:

The LSS concept grew out of the Commission's concern regarding how best to review the DOE license application for a high-level radioactive waste (HLW) geologic repository. The focal point of this concern was the provision in Section 114 (d) (2) of the Nuclear Waste Policy Act of 1982 (NWP), which requires the Commission to issue a final decision approving or disapproving issuance of the construction authorization for the repository within three years of the DOE license application. Because the decision schedule in the NWP was ambitious and required the Commission to make a decision more quickly than had been possible in most contested reactor licensing cases, and because the repository licensing proceeding would be unique in comparison with the typical Commission reactor and materials licensing cases, the Commission recognized the requirement for significant changes in its procedural approach to the adjudicatory proceeding.

The LSS appeared to offer the opportunity for significant time savings and, simultaneously, for the enhancement of any party's opportunity for effective participation. The LSS offered an automated means for handling the large volume of the documents expected to be used in the repository licensing proceeding. It would also assist the Commission in: (1) managing the novel and complex issues involved; (2) accommodating the increased number of parties who would be generating relevant technical information because of the funding provisions in the NWP; and, (3) dealing with the long duration of the licensing process from site characterization through the review of the license application without losing institutional history. As noted in SECY-86-133, "Development of a Proposed Rule on the Submission and Management of Records and Documents Related to the Licensing of a Geologic Repository for the Disposal of High-level Radioactive Waste," before the enactment of the NWP, Chairman Palladino testified to Congress that the three-year schedule under Section 114 (d) (2) of NWP would be difficult to meet even under the assumption that DOE submits a complete and high-quality application.

If the staff were to meet that statutory deadline, specific measures would have to be taken to streamline the NRC review process. One of the most significant factors contributing to the length of licensing review noted in SECY-86-133 was the time associated with sending, receiving, duplicating, and handling information and data. The staff believed it necessary to reduce the time spent on the discovery process and the time-consuming service of documents if the Commission were to reach its decision within the allotted

time frame. To effect this time reduction, the information and data supporting a DOE application should be made available, simultaneously in a centralized database, to all interested parties, before the application is submitted and formal NRC review begins. Emerging information management technologies for issue identification, electronic storage and retrieval, and electronic mail were recommended for these functions to help achieve the objectives of more effective and efficient review.

The Commission employed the technique of negotiated rulemaking to develop the regulations governing the development and use of the LSS. Negotiated rulemaking is the process by which the agency and the interests affected by a rulemaking meet to attempt to reach a consensus on a draft proposed rule. If a consensus is reached, the agency publishes the negotiated rule as the agency's proposed rule. The Commission selected the negotiated rulemaking approach to address the LSS issue for several reasons. The use of an electronic information management system in a Commission adjudicatory proceeding was a new and novel process, not only for the Commission, but in general. Therefore, the development of the rules for the use of such a system would benefit from discussion and joint problem solving by all those who might use the system and had experience with the Commission's traditional adjudicatory process. Furthermore, the potential users of the LSS possessed unique information that would be important to the design of the system, such as their computer capability and the amount and types of relevant documents that they might generate. In addition, the potential for consensus was enhanced by the fact that the LSS rule focused on procedures for conducting the licensing process, that might benefit all parties, rather than focusing on substantive technical criteria for a licensing process. Finally, the success of the LSS depends upon potential parties voluntarily complying with the licensing process for document identification and submission in the period before the DOE license application was submitted. Therefore, the involvement of interested parties in the development of the provisions to govern the use of the LSS was essential.

The Commission initiated the negotiated rulemaking in August 1987, and the negotiating committee--composed of State, local, and tribal governments, industry representatives, NRC, DOE, and environmental groups--completed its work in July 1988. All the parties on the negotiating committee, except the industry coalition, agreed on the text and supplementary information of a draft proposed rule. However, even the lone dissenting party had been a full and active participant in the drafting of the regulatory text and supporting information. Industry did not join the final consensus at the end of the process based on its belief that the use of a new technology in the licensing process would not prove cost-beneficial. The Commission, recognizing the agreement among the overwhelming majority of the parties on the negotiating committee, decided to publish the negotiated draft proposed rule as the Commission's proposed rule in November 1988. Because of this effort, the final LSS rule (10 CFR Part 2, Subpart J), "Procedures Applicable to Proceeding for the Issuance of Licenses for the Receipt of High-Level Radioactive Waste at a Geologic Repository," was promulgated in April 1989.

The LSS rule established the LSS Administrator (LSSA) under NRC who is responsible for the management, administration, operation and maintenance of the LSS; gave DOE responsibility for the design, development, and implementation of the LSS; and established the charter of the LSSARP to provide consensus guidance on the design and development of the LSS.

When the LSS rule was promulgated, there was a sense of urgency surrounding the development of the LSS because of DOE's HLW repository program schedule which, at that time, indicated DOE would submit the license application for the repository in the beginning of 1995. By 1989, an estimated 10 million pages of material relevant to the licensing proceeding had already been generated, and an additional 10 million pages were expected by 1995. Before the end of 1989, however, DOE had revised its repository program schedule and extended the application submittal date from 1995 to 2001. This revision was accompanied by DOE's substantial extension of the LSS development schedule. In the ensuing years, because of budget pressures and problems associated with proceeding with the technical work on repository site characterization, DOE further extended its LSS development schedule. During this period, the LSSA (an NRC function) continued efforts to emphasize the need for DOE to make timely progress on the development of the system.

DISCUSSION:

In SECY-96-120, the NRC staff described the refocusing of NRC's prelicensing high-level waste repository program due to significant budget restrictions imposed on both the NRC and DOE for the national HLW program. As part of this budget reduction, DOE's efforts to develop a multipurpose canister for transportation, storage, and disposal of HLW were transferred to the private sector. Congress is currently considering additional legislation which may have a significant impact on future progress of the HLW program.

Two salient considerations form the basis for the SMT's reexamination of the LSS rule and implementation technologies. The first consideration is that the current rule is not achieving its intended purpose and cannot reasonably be expected to do so because of budgetary constraints/changes in the nation's high-level waste program resulting in a constant state of change in repository licensing activities. The second consideration is that, even if budgetary constraints were no longer present, technological and regulatory advances have made the LSS system as currently defined obsolete. The technological and regulatory advances include advances in off-the-shelf litigation support software and interconnectivity provided by the Internet and developments in the state of the hearing processes within NRC.

Inability of 10 CFR 2, Subpart J, to Meet Its Intended Goals

The impetus for establishing the LSS was to facilitate NRC's processing of a high-level waste repository license application within the three-year period required by the Nuclear Waste Policy Act. The concept of an LSS was developed in 1986 and was based on the state of computer technology at that time. It was intended to provide a central, shared database of information relevant to the licensing of the repository beginning in 1995. It was also envisioned

that the LSS would provide a structure that would automatically impose discipline to the tracking of DOE decisions that were made based on that information. However, neither the lack of budget to develop the LSS nor the protracted length of time for DOE to develop a license application were anticipated. In the absence of an LSS, NRC staff is working during the prelicensing period to ensure a disciplined structure for tracking documentation of DOE decision making. Both NRC and DOE maintain open item tracking systems to ensure that the rationale, technical basis, and approach to resolution of issues are documented. Recently, NRC management met with DOE management to ensure that a disciplined structure for decision making is in place. Such a structure must be in place with or without an LSS. In addition, per the NRC/DOE procedural agreement, DOE has made available some electronic data which the NRC staff finds beneficial.

Although much information is available, the lack of an LSS over the years has resulted in the accumulation of a tremendous collection of documentary material held for eventual conversion to the LSS, much of which may no longer be relevant to the license proceedings. It may also have contributed to the loss of a carefully documented DOE decision-making trail. As a result, it is the opinion of the SMT that the LSS, as currently described, can no longer be relied upon to aid in meeting the schedule of a three-year processing of a license application as originally intended.

Technological Obsolescence

Based on the technology that was available when the LSS was conceived, the LSS was envisioned as a dedicated computer hardware and software system that would be centrally housed, managed, and operated. Access to the system would be via software specifically designed for the LSS over relatively low-speed, common carrier, dial-up telephone lines.

While the development of the LSS remained stalled, the state-of-technology in document automation surpassed the concept that was expected to be implemented by 1992. By 1996, the basic components of the LSS technology were available in "commercially available off-the-shelf" (COTS) software products. Electronic document exchange mechanisms, commercial litigation support software and services, Internet E-mail, and Internet browse/search/retrieval engines exercised on computer systems are routinely used and they could meet most (perhaps except for the electronic docket, discussed below) of the intended objectives of the LSS rule.

In addition, current efforts within NRC related to technological innovations in functional areas germane to the LSS mission lead the SMT to conclude that even the non-COTS functionalities and software applications need not be totally reinvented for the LSS. For example, the LSS rule requires that an electronic docket of the licensing be established within the LSS. Within NRC, the Licensing Board has successfully piloted demonstrations of an electronic docket. The LSS rule requires that electronic motions practice--submission of motions and the dissemination of the Board's rulings to all parties with standing--be provided by the LSS. Within NRC, NRR has completed extensive work with a number of utilities examining the practical and legal issues

associated with electronic document exchange. The NMSS Business Process Reengineering effort for materials licensing is incorporating electronic license submission using "forms" available on the Internet and submitted via electronic mail. IRM is actively designing and developing for SECY, ASLBP, and OGC an electronic hearing docket. This electronic system, scheduled for implementation in 1997, will be one of the first working modules of NRC's new document management system called ADAMS.

With the widespread and commonplace use of computers to generate and maintain the records holdings of parties to the repository licensing proceedings, the universal availability of the Internet to tie disparate and geographically dispersed systems together, and the availability of currently existing and/or planned NRC LSS-related applications, the centralized Licensing Support System envisioned at the time the LSS rule was negotiated is now technologically obsolete.

The challenge is how to effectively use the existing environment which favors dispersed, individualized data bases and still maintain the benefits of an LSS as originally conceived. Parties to the negotiation of the LSS rule expected that the LSS would provide: (1) a mechanism for discovery prior to the filing of the license application; (2) electronic transmission of filings by the parties during the proceeding; (3) electronic transmission of orders and decisions related to the proceeding, and (4) access to an electronic version of the docket. They negotiated provisions in the rule to ensure that all documentary material not privileged or otherwise excluded would be submitted reasonably contemporaneously with its creation. They also negotiated provisions allowing participants, other than DOE and NRC, to be able to submit paper versions of their documentary material and to pay only for their phone line connection to the system thus minimizing costs and providing each participant, regardless of size or financial resources, with equal access to the information related to licensing. These are the elements which represent the benefit for which the parties negotiated in good faith and which NRC should address in developing alternatives to the current rule. The SMT realizes that it was made clear to participants in the Negotiated Rulemaking that the Commission might change the rule in the future based on changed circumstances. Nevertheless, the potential participants have continued to serve on the LSSARP and have invested much time and effort in assisting DOE and NRC in the LSS development process. Thus, the SMT believes these parties' needs should continue to be given substantial consideration.

This subject was discussed at the May 1996 LSSARP meeting. Specifically, the affected parties are concerned about preserving their ability, as negotiated in the LSS rule, to access documents on a timely basis and to be assured that the appropriate documents are available. Their comments on an Internet-based LSS and a rewritten 10 CFR 2, Subpart J were as follows:

- The State of Nevada and Nye County stated that they were not interested in abandoning the LSS rule and proceeding with a new Subpart G (which provides for traditional proceedings without LSS-like support) unless the new Subpart G included early discovery of relevant documents before the license application is filed.

- The use of negotiated rulemaking to revise the LSS rule was raised by the State of Nevada. Nevada believes the NRC is obligated to use negotiated rulemaking to implement these changes.
- The State of Nevada stated that the LSS is very important to Nevada and the State planned to rely on the system in developing its case on the license application. The State does not want to see the LSS "unravel" and wants the LSS or something equivalent. Several of the counties also affirmed the Nevada concern.
- The tribal representative from the National Congress of American Indians requested that the NRC consider any special problems that Native American organizations may have in accessing the Internet.

SMT STRATEGY:

There are currently a number of DOE budget scenarios that pose substantial uncertainties concerning further LSS development. In addition, congressional action on a new HLW act may be imminent. These variables all mitigate against the development, under the current LSS rule, of a plan that can be adhered to. Developing a workable strategy for meeting the original LSS objectives must therefore be based on plans which are independent of those factors.

The SMT has developed a strategy, with four main components, for a plan of action to address the current LSS issues:

1. REASSESSMENT OF THE FUNDAMENTAL TECHNOLOGICAL APPROACH FOR THE LSS

The concept of a dedicated installation (e.g., central mainframe computer) where all parties deposit their licensing related documents should be reassessed. The viability of using an approach whereby the computer systems of all parties are logically tied together via the Internet should be explored. In this approach, each party would be responsible for setting up its own computer, loading its own documents, and providing for the long-term maintenance and control of its own data. Access to all the collections comprising the LSS would be accomplished via hyperlinks on the Internet.

Current thinking is that there could be a requirement for all parties to establish an Internet "home page" presence. Each home page would be established with a subset of LSS-relevant documents, following the bibliographic header format already agreed to by the LSSARP, and to include full text and images of the documents. Each participant could establish a web database server consistent with its existing records system hardware and software capabilities. The LSS would become an "LSSnet" comprised of a "master home page" with links to each of the participant's home pages. Concepts that should be evaluated for both technological feasibility and resource constraints/requirements include: (1) establishing hyperlinks among the document collections for referenced and attached documents, and (2) allowing the LSS Administrator to validate the timeliness of submission, completeness, document integrity, and other audit and compliance functions via automated, on-line reviews. Motions practice may be accomplished by e-mail

submission to SECY, which would enter the motions into the electronic hearing docket currently under development for SECY.

In short, the LSS would be developed to support discovery, and already existing agency systems would be used to support motions practice and docketing and any other automation requirements related to the hearing process itself.

As a partial experiment on the practicality of this approach, the staff is developing a test demonstration website on the Internet where limited NRC documents concerning the HLW program will be made available to any interested party. These documents will be searchable on text or by the use of selected fields from indexes or headers. The purpose of the project is to demonstrate and test potential LSS tools using real HLW documents. This test is not designed to be a complete LSS that satisfies all of the requirements of the LSS rule. Input to the Internet server would come from existing internal electronic files contained in NRC's Consolidated Document Management System (CDOCS). The staff will also include in this test demonstration publicly available NRC HLW documentation contained in the Commission Decision Tracking System. This pilot program should be operational with a limited number of documents by August 31, 1996.

Also, DOE has developed a mechanism that allows limited access to document information contained in its internal Records Information System (RIS) via the Internet. RISweb allows interested parties access to the current index of DOE records, thereby providing a vehicle that allows them to gain additional experience in the use of Internet/Web technology for document review.

Additionally, in reassessing the fundamental technical approach for the LSS, the staff also plans to relook at the methods for funding non-DOE LSS-related activities to assure more direct NRC control.

2. CHANGES TO THE LSS RULE

The LSS rule currently anticipates an organization operating under the LSS Administrator that tightly control operations, access, and availability of the LSS via a centralized system. The rule requires the system to be designed and developed by DOE following consensus guidance of the LSSARP. The rule also requires that the LSS contain the electronic docket for the hearing. When promulgated in 1986, these attributes reflected political realities, the state of technology, and NRC practice in adjudicatory proceedings. These features are proving impractical, overtaken by technology, or constrained in light of the generic practices now being considered.

The SMT recognizes the need to further study available alternatives on how the LSS rule can be changed. There are at least two alternatives: (1) a stand-alone effort to revise only the LSS rule; or (2) as part of a larger effort to revise all of 10 CFR Part 2. The SMT met in July 1996 with ASLBP representatives. The consensus was that the procedures for NRC adjudicatory hearings, in general, be streamlined to include the use of electronic

technology such as envisioned in the LSS rule. These new changes would ultimately subsume the LSS rule.

A comprehensive rewrite of 10 CFR Part 2 would provide for levels of automation beyond those reflected in the current LSS rule and would form an agency standard approach for all such activities rather than a case-specific approach. However, this effort could not conceivably be finished in time to support the required schedule for the availability of LSS functionality.

As a standalone effort, the revision of LSS rule to enable new automation approaches and reallocate roles and responsibilities would be expedited and be in place before the rest of 10 CFR Part 2 was revised. This would still be done following an approach that would reflect an agency standard so that the LSS rule could be effortlessly subsumed by a later rewrite of all of 10 CFR Part 2.

3. RETENTION OF FEATURES NEGOTIATED BY AFFECTED PARTIES

The concerns of affected parties should be addressed. Specifically, the affected parties are concerned about preserving their ability, as negotiated in the LSS rule, to access documents on a timely basis and to be assured that the appropriate documents are available. These and other items that were key points during the negotiated rulemaking should be reflected in the rewritten LSS rule. The SMT recognizes that, while no commitment was made to use negotiated procedures or to keep the LSSARP in existence if the LSS rule is modified, revising the LSS rule should be a consensual process in the interest of efficiency as well as public outreach. Timeliness, integrity and other document submission concerns would be addressed by performance objectives to be included in the rewritten LSS rule. These performance objectives would be audited by the LSSA.

4. ESTABLISHMENT OF A MECHANISM FOR ONGOING TECHNICAL COORDINATION

The original LSS rule charters an LSS Advisory Review Panel to provide consensus guidance on the design and development of the LSS (the centralized system which the SMT now suggests be replaced by a system comprised of individual networks linked via the Internet). The SMT recommends that consideration be given to replacing the existing LSSARP with a voluntary forum and that its business be conducted via a combination of Internet bulletin board/discussion areas (along the lines of RuleNet), video teleconferencing, and traditional meetings. This forum would allow participants to give voice to their concerns over timeliness, authenticity, and completeness of the individual participant data. This would provide an efficient means for all current interests represented on the LSSARP to have the opportunity to be involved in the process of meeting the objectives of the LSS.

Similarly, to elicit commentary on the strategies proposed in this paper, the LSSA has already started an effort to implement an Internet discussion area similar in functionality to the RuleNet. The results of this interaction will be reflected in a paper subsequent to this one on proposed strategies that the SMT will offer for Commission consideration.

RECOMMENDATION:

Unless directed otherwise by the Commission, the SMT will pursue the four components of the proposed strategy for addressing current LSS issues. The SMT will begin electronic discussions with the members of the LSSARP to develop a detailed description of the pros and cons of each component. The results of this discussion will be presented to the Commission in a subsequent paper in which the SMT will request final direction from the Commission on a course of action for the future of the LSS. This paper will be submitted to the Commission by October 15, 1996.


James M. Taylor
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Commissioners' comments or consent should be provided directly to the Office of the Secretary by COB Friday, August 23, 1996.

Commission Staff Office comments, if any, should be submitted to the Commissioners NLT August 16, 1996, with an information copy to the Office of the Secretary. If the paper is of such a nature that it requires additional review and comment, the Commissioners and the Secretariat should be apprised of when comments may be expected.

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