

March 22, 1995

MEMORANDUM TO: Karen Cyr, General Counsel
Gerald F. Cranford, Director, IRM
Robert M. Bernero, Director, NMSS

FROM: James M. Taylor
Executive Director for Operations

SUBJECT: LICENSING SUPPORT SYSTEM (LSS)

Original signed by
James M. Taylor

In order to ensure that the Licensing Support System (LSS) program is coordinated and focused, I am establishing a Senior Management Team for the LSS to review the direction, roles and responsibilities, and user needs for the LSS. The immediate task of the team is to re-evaluate the purpose of and need for the Licensing Support System. Additionally, the Senior Management Team will address issues raised by the Inspector General (IG) in a recent audit report (Attachment 1).

Members of the Senior Management Team for the Licensing Support System will include Malcom Knapp, NMSS; Arnold Levin, IRM; and William Olmstead, OGC. Additional technical support will be provided by representatives from OC, RES and DEDES. The Senior Management Team will take management direction from and report to me.

Attached is the Charter for the Senior Management Team for the LSS (Attachment 2).

Attachments: 1. IG Audit Report
2. LSS Charter

cc: H. Thompson, DEDES
w/o D. Williams, IG
Att. R. Scroggins, OC
1 D. Morrisson, RES

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**OFFICE OF
THE INSPECTOR GENERAL**

**U.S. NUCLEAR
REGULATORY COMMISSION**

**NRC NEEDS TO PROVIDE
STRONG DIRECTION FOR THE
LICENSING SUPPORT SYSTEM**

OIG/95A-01 March 17, 1995

AUDIT REPORT



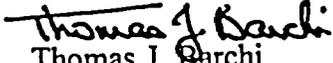


UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555

March 17, 1995

OFFICE OF THE
INSPECTOR GENERAL

MEMORANDUM TO: James M. Taylor
Executive Director for Operations

FROM: 
Thomas J. Barchi
Assistant Inspector General for Audits

SUBJECT: NRC NEEDS TO PROVIDE STRONG DIRECTION FOR THE
LICENSING SUPPORT SYSTEM

Attached is the Office of the Inspector General's report entitled, "NRC Needs to Provide Strong Direction for the Licensing Support System."

On March 13, 1995, the Deputy Executive Director for Nuclear Materials Safety, Safeguards, and Operations Support (DEDO) responded to our draft report. The DEDO agreed with our findings and recommendations and provided an action plan for implementing the recommendations.

Attachment:
As stated

cc: H. Thompson, EDO
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REPORT SYNOPSIS

The Nuclear Waste Policy Act of 1982 requires the U.S. Nuclear Regulatory Commission (NRC) to approve or disapprove the construction of a high-level waste repository within 3 to 4 years of receiving a Department of Energy (DOE) construction license application. To meet this deadline, NRC enacted a negotiated rule requiring the development of an electronic information management system, called the Licensing Support System (LSS). As planned, the LSS would greatly reduce the amount of time necessary for discovery during the license hearing proceedings. The rule requires NRC to operate and maintain the system and DOE to design and develop it.

The LSS program has stalled over the past 5 years primarily due to delays in the DOE license application schedule, personnel changes in DOE and NRC, changes in program direction, and lack of agreement over funding. Many of these delays may be attributed to lack of a clear definition and agreement on the roles and responsibilities both between and within DOE and NRC. As a result, only 6 years remain in which to develop and implement a LSS prior to the scheduled repository license application date of 2001. This is the same time period that existed in 1989 when DOE originally planned to submit its license application in 1995.

Because NRC is mandated to conduct a timely licensing proceeding, the agency needs to take a strong, aggressive leadership role to ensure this mandate is met. We believe it is crucial that the LSS not interfere with the critical pathway of the license application. Therefore, we recommended that NRC: (1) work with DOE to develop a formal agreement on key issues; (2) resolve key internal management issues; and, (3) develop a contingency plan to resolve potential interagency issues that are not resolved after a reasonable period of time.

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INTRODUCTION

The Office of the Inspector General (OIG) has completed an audit of the U.S. Nuclear Regulatory Commission's (NRC) effort to set up a Licensing Support System (LSS) according to the Code of Federal Regulations¹. This effort is a joint responsibility of NRC and the Department of Energy (DOE). DOE is responsible for designing and developing the LSS, while NRC is responsible for operating and maintaining the system.

The objective of our audit was to determine the status of the LSS and to identify any issues that may be affecting its development. Appendix I contains a detailed description of our objectives, scope, and methodology.

BACKGROUND

The Nuclear Waste Policy Act of 1982 (NWPA) mandates DOE to construct, operate, and permanently close a high-level nuclear waste (HLW) storage and disposal facility. The NWPA² requires NRC to issue a final decision on the issuance of a construction authorization for the HLW repository, in accordance with applicable laws. This must be done within three years after DOE submits its construction license application. A one year extension is possible for justifiable cause. If NRC determines that these deadlines cannot be met, NRC must report the expected delay and its reasons to Congress.

NRC's past experience indicates that meeting this deadline will be very difficult. On average, NRC took five years to complete a typical reactor operating license hearing. In highly contested cases, NRC needed up to nine years to license a power reactor. The repository licensing will also likely be a highly contested case involving a one-of-a-kind facility, which will add to the complexity of the hearing.

¹Code of Federal Regulations, Title 10, Part 2, Subpart J

²Nuclear Waste Policy Act of 1982, Section 114d

Historically, traditional document discovery³ processes have occupied 30-50% of the hearing time for reactor operating licenses. NRC believes that documentary material needed for the repository hearing will be at least several times greater than that of a typical reactor case. Current estimates indicate that parties to the licensing hearing will generate about 18 million pages of discoverable material by the time DOE submits its license application.

Therefore, NRC initiated measures to streamline the licensing process, especially regarding the discovery phase. This was done to meet the statutory schedule and to provide for an effective license application review by all parties. One of these measures was the development of an electronic information management system, known as the LSS.

NRC established procedures for use of the LSS through negotiated rulemaking. The negotiations included NRC, DOE, the State of Nevada, Nevada local Governments, the National Congress of American Indians, a coalition of environmental groups, and a coalition of nuclear power industry groups. Although there was not a consensus, most of the participants agreed to the final version of the rule. The final rule established the basic procedures for licensing the repository, including the use of the LSS. It also called for the establishment of a Licensing Support System Advisory Review Panel (LSSARP) that would be made up of the same participant groups which negotiated the rule.

NRC issued the LSS rule on April 14, 1989, and amended it on March 28, 1991. The rule defines the characteristics of the LSS and establishes specific conditions for its use. Under the rule, DOE is responsible for design, development, and installation of the LSS. NRC is responsible for providing an LSS Administrator (LSSA). The LSSA is responsible for: (1) system administration; (2) overseeing DOE's design, development, and installation of the LSS; (3) enforcing the

³In accordance with the Code of Federal Regulations Title 10, Part 2.740 et. seq., *discovery* is a legal process used in agency proceedings which enables parties to obtain information and documents regarding any matter, not privileged, which is relevant to the subject matter involved in the proceeding. Discovery includes depositions, that is transcribed oral examination under oath; written interrogatories, which are questions posed by one party to be answered by an opposing party; requests for production of documents or things or permission to enter upon land for inspection; and requests for admission.

standards for document submission by LSS participants; (4) ensuring the integrity of the LSS database; and (5) operating and maintaining the system.

The LSS will contain all the data supporting DOE's license application and all NRC and other-party generated documents potentially relevant to the licensing proceeding. DOE is expected to generate approximately 85 percent of the documents placed in the LSS. All documents will be placed into the LSS using a standardized electronic format. All parties will then have access to this system. This will eliminate the time-consuming physical copying and onsite review of documents because the data will be readily available through access to the LSS.

Through implementation of the LSS, NRC intends to:

- facilitate discovery by providing comprehensive and easy access to potentially relevant licensing information;
- establish the information base for the licensing proceeding, to the extent practicable, before the DOE license application is submitted and the three year statutory time period begins;
- facilitate review of the relevant licensing information by all parties and eventually the boards through the provision, to the extent practicable, of full text search capability;
- reduce the time associated with the physical submission of motions and other documents associated with the licensing proceeding by providing for the electronic transmission of these documents.

FINDINGS

We found that NRC needs to provide strong direction on LSS issues to prevent unnecessary and costly delays in approving DOE's construction authorization for the HLW repository. Since its inception, the LSS program has suffered setbacks and delays that have significantly slowed its progress.

The LSS is on a time critical path for ensuring NRC's consideration of DOE's HLW repository application within the mandated period. Therefore, the timely resolution of issues and development of the LSS system are critical. We found that key interagency issues between NRC and DOE remain unresolved. NRC and

DOE have recently taken positive steps toward resolving some of these issues; however, the solutions are still in a preliminary stage of development and have not yet been formally agreed to.

Additionally, NRC needs to address and resolve several key intra-agency issues. We believe the LSSA must provide strong, effective leadership. He must also provide proper direction to ensure that longstanding management issues are resolved and the LSS is ready when needed.

THE LSS HAS BEEN PLAGUED WITH SETBACKS AND DELAYS

The schedule for implementing the LSS has suffered many delays during which the direction of the LSS program has undergone numerous changes. Appendix II identifies significant events of the LSS program. Many events have occurred since NRC issued the LSS rule: (1) the repository application submission schedule has slipped six years, (2) there have been several changes in the LSS development schedule, and (3) NRC and DOE have had many communication exchanges on program and budget responsibilities for the LSS without lasting results.

Early Program Delays and Budgetary Concerns

In December 1989, DOE revised its repository program schedule and extended its anticipated license application submittal date from 1995 to 2001. Shortly after, DOE's Office of Civilian Radioactive Waste Management (OCRWM) likewise extended the LSS development schedule.

During most of 1990, the LSSA made several unsuccessful attempts to establish a formal agreement with DOE to transfer responsibility for the design and development of the LSS to NRC. The Commission was concerned that continued delays in completing these steps of the LSS program would prevent NRC from meeting its congressional mandate. NRC also intended for DOE to retain budget responsibility for the entire LSS program, which DOE eventually agreed to, contingent upon concurrence from the Office of Management and Budget (OMB).

OMB budget examiners made it clear to NRC and DOE staff that they strongly opposed such a split for the LSS. In the fall of 1990, OMB told DOE to remove all LSS development funds from its budget. They also informed DOE that LSS funding should not be in DOE's budget, but in NRC's, once it was appropriate to proceed with development. The budget examiners' position was that program and budget responsibilities could not be split between two Federal agencies.

In early 1991, NRC tried to verify with DOE its understanding that DOE was not going to design and develop the LSS. NRC also asked DOE to describe the extent to which DOE would support the future costs of the LSS program. However, DOE never directly responded to these inquiries. As a result, in mid-1991, the LSSA recommended that NRC assume LSS development responsibilities under existing design functionality and schedule requirements.

Introduction of INFOSTREAMS

While the NRC was considering this recommendation, DOE announced an OCRWM initiative to develop an internal automated information system capability. DOE would use this system, called INFOSTREAMS, instead of the LSS to capture⁴ DOE's LSS material according to LSS document processing standards. OCRWM would perform most INFOSTREAMS processing for its own internal purposes, regardless of LSS requirements. The system would also have document storage and retrieval capabilities similar to those planned for the LSS.

Later in 1991, the NRC and DOE formed a joint DOE/NRC Technical Working Group on the LSS. One purpose of the group was to examine the design, development, implementation, and operational aspects of the LSS. Another purpose was to search for ways to reduce the overall costs of the LSS, which are reimbursed from the Nuclear Waste Fund.⁵

The group was to focus specifically on the benefits of using INFOSTREAMS and its developed software in reducing LSS developmental and operational costs. The working group prepared draft recommendations in early 1992; however, DOE objected to completing them until NRC and DOE resolved the broader issues pertaining to LSS program and budget responsibilities.

As a result, NRC staff prepared recommendations on LSS program and budget responsibilities. The staff recommended that NRC develop the LSS as an information storage and dissemination system and then operate and maintain it.

⁴Capturing a document means converting it into a predefined electronic format.

⁵The NWPA requires owners and generators of high-level nuclear waste, primarily utilities operating nuclear power plants, to pay fees into the Nuclear Waste Fund. This fund is included in the Federal budget and may be used only for activities associated with waste disposal.

They recommended that DOE and NRC share the costs equally. They also recommended that DOE capture all LSS material. The NRC Commissioners did not approve these recommendations.

The Commission noted that when they approved the staff proposal in 1988 to have the NRC administer the LSS, they stipulated that DOE must pay for all costs associated with the LSS, including the costs of operation and maintenance. The Commission then noted that it was not prepared to depart from that condition. Instead, the Commissioners requested that the staff examine additional alternatives that would expand DOE program and budget responsibilities for the LSS. Additionally, the staff was to evaluate alternatives for the organizational and reporting relationships for the LSS Administrator's staff and examine options for funding NRC's share of the LSS responsibilities.

Transfer of Operation and Maintenance Responsibilities to DOE

By 1993, NRC and DOE still could not agree upon program and budget responsibilities for the LSS. This issue, and the emergence of INFOTREAMS, caused NRC Commissioners to question the need for NRC to have operational responsibilities for the LSS. NRC staff pointed out that a rule change would be required to make DOE responsible for the operation and maintenance of the system. However, this proposal was unacceptable to many of the LSSARP members. They perceived that such a change would not give NRC the control during operation and maintenance of the system that was intended when the rule was negotiated.

To overcome this objection, NRC and DOE developed an alternative proposal. NRC's LSSA would serve as the Contracting Officer's Technical Representative for DOE's operation and maintenance contract for the system once it was designed and developed. However, by the end of 1994, DOE found that they could not support such an arrangement.

A New Arrangement is Proposed

In the December 1994 LSSARP meeting, DOE announced that it was no longer utilizing INFOTREAMS for the LSS. Instead, DOE said it was considering use of a suite of software called the Licensing Data Management System (LDMS) as the basis for the LSS. DOE has been developing the LDMS since March 1994.

However, the extent to which DOE will use the LDMS remains uncertain, as DOE is currently performing a "make" versus "buy" analysis on the LSS⁶.

In the same LSSARP meeting, DOE staff offered a new alternative to resolve operational and budgetary issues. In this alternative, NRC and DOE would negotiate and formalize an interagency agreement on the LSS. This agreement would also provide for DOE to request appropriations for LSS operation and maintenance costs. NRC would then draw against a separate DOE account established for this purpose. An OMB examiner indicated that this arrangement would be acceptable as long as both parties were in agreement.

Under this proposal, the LSSA would fulfill NRC's responsibilities for operating and maintaining the LSS; however, DOE would obtain funding for these responsibilities. Although not yet formalized, NRC expects that the appropriated funds will be charged against DOE's budget cap, rather than NRC's. At the time we completed our field work, however, DOE had not yet gained management approval for this alternative.

DOE and NRC Organizational Changes

NRC and DOE have both undergone internal organizational changes that have affected the direction and schedule for the LSS. In late 1992, the Commission approved the staff's recommendation that NRC reconstitute the staff of the Office of the Licensing Support System Administrator to the Office of Information Resources Management (IRM). They also recommended that the staff report to a new IRM Deputy Director/LSSA.

In 1993, a Presidential Executive Order called for a four percent reduction in full-time equivalents (FTEs) and a fourteen percent reduction in administrative costs. In response, NRC postponed most of the agency's activity on the LSS during fiscal years 1994 and 1995. NRC also agreed to reduce staff resources for the LSS to one FTE and entirely cut LSS program support funding for those years.

Changes in DOE's repository program have also affected the LSS program. In 1994, DOE began a revised program approach for the entire repository program, which included a reorganization of OCRWM. In early 1994, DOE transferred responsibility for the design and development of the LSS from OCRWM Headquarters to the Yucca Mountain Site Characterization Office (YMSCO).

⁶An analysis to determine whether DOE should build the system itself or put together a system comprised of off-the-shelf components.

Due to this transfer, YMSCO began a reevaluation of the LSS concept and implementation requirements. Additionally, the DOE staff with whom the LSSA had been working were no longer responsible for LSS matters. Virtually all lines of communication between the LSSA and DOE on LSS issues were severed.

In May 1994, while attempting to clarify the situation regarding INFOSTREAMS and reestablish working arrangements with DOE, the LSSA initiated contact with DOE management. However, DOE did not substantively respond to the LSSA's inquiries. The NRC Chairman sent a letter to DOE in June 1994 requesting details on management of and technologies to be used for the LSS. In preparation for the September 1994 LSSARP meeting, the LSSA and YMSCO staff resumed communication. However, DOE did not officially respond to the Chairman's letter until January 1995.

KEY INTERAGENCY ISSUES HAVE GONE UNRESOLVED

Due to the splitting up of LSS responsibilities, it is essential that NRC closely coordinate its activities with DOE. NRC recognized this and, in the supplementary information to the LSS rule, said it expected to develop a Memorandum of Understanding (MOU) with DOE. The MOU would be consistent with the requirements of the rule on the design and development of the LSS. However, to date, all attempts to reach such an agreement have failed.

NRC has not yet reached a resolution with DOE on the issue of when the LSS will be available to potential users. The LSS must be substantially loaded and fully available for use by all LSS participants for a reasonable period before DOE submits its license application. This is necessary to support the technical review of the application materials and the hearing discovery process as envisioned in the LSS rule.

NRC, however, did not set up specific timetables in the rule. Supplementary information to the LSS rule states that the Commission anticipates that LSS participants will have access to the LSS well before DOE submits the license application. Additionally, the rule implies that the database must be fully loaded six months before DOE submits its license application under Subpart J.

Although broadly defined in the rule, NRC has not come to an agreement with DOE on the details of the respective roles of each agency for the LSS. Specifically, NRC has not come to an agreement with DOE on the issue of who

will capture and load⁷ LSS documents into the system. Additionally, NRC has not specifically defined the role it will play as overseer of the design and development phase.

Another unresolved issue concerns funding for the LSS. As previously pointed out, before issuance of the LSS rule, the Commission stated that DOE must pay for all costs associated with the LSS, including operation and maintenance. This was so that NRC would not have to spend any of its budget appropriation for these expenses. The Commission directed the NRC staff to formalize this funding arrangement in an agreement with DOE.

To date, NRC has not reached a formal agreement with DOE on this issue. Additionally, NRC issued the LSS rule without ever getting such an agreement. Since then, the funding issue has been the subject of much debate. Although NRC and DOE have made several recommendations to resolve the issue of funding for the LSS, none to date have resulted in a formal agreement between the two agencies.

Another unresolved issue is the technical requirements regarding the functions, features, and technology for the LSS. With the move of DOE responsibility for the LSS program to the YMSCO in early 1994, a new DOE staff began work on development of the LSS. As a result, DOE initiated a reevaluation of the entire LSS concept. DOE contractors considered six options representing a full range of LSS operational concepts. To date, DOE has not yet decided upon which option to employ.

NRC and DOE have been attempting to resolve issues mainly through the use of the LSSARP. This group's charter is to provide advice to the DOE and the LSSA on fundamental issues of the LSS. During LSSARP meetings, proposals to resolve these issues have surfaced. However, there are several key interagency issues that have not been resolved. To avoid further setbacks and delays in developing and implementing the LSS, the NRC needs to take the lead in reaching a formal resolution with DOE on these issues through a means such as an MOU or an interagency agreement.

⁷While "capture" indicates converting a document into an electronic format, "load" indicates the act of placing the captured documents into the LSS.

KEY INTRA-AGENCY REQUIREMENTS HAVE GONE UNRESOLVED

Within NRC, there are various groups that have LSS responsibilities. For example, IRM contains the LSSA, who is responsible for operating and maintaining the system. The Office of Nuclear Material Safety and Safeguards (NMSS) is responsible for necessary planning to meet the licensing time frame for the repository and will be a primary user of the LSS. Labat-Anderson/Price Waterhouse are NRC contractors and have performed many tasks for the LSSA. NRC's Federally Funded Research and Development Center (FFRDC), the Center for Nuclear Waste Regulatory Analysis, has also performed some tasks for the LSS. Other groups which are involved with the LSS include the Atomic Safety and Licensing Board Panel and the Offices of the General Counsel, the Secretary, and Commission Appellate Adjudication.

All offices of the NRC, including its contractor and its FFRDC, could potentially have documents that will need loading into the LSS. As a result, NRC needs to ensure that all of these groups have clearly delineated roles and responsibilities toward the LSS. NRC also needs to ensure that each group carries out these responsibilities in a timely manner. However, these are not now consistently being accomplished.

According to DOE and other sources, the LSS rule broadly defines the requirements for an LSS. NRC needs to determine its specific requirements for the LSS. Many of these requirements are enumerated in NRC Manual Chapter 0109, "Organization and Function, Office of Licensing Support System Administrator." However, the extent to which this guidance is being followed is unclear, since an agency spokesperson for the LSS was not aware of the contents of this Manual Chapter.

Any determination of internal requirements should include the needs of NMSS as the primary user of the LSS. NRC also needs to determine milestone dates for LSS loading and operation. NRC needs to determine what internal documents are relevant for input into the LSS and then begin segregating and formatting those documents. Additionally, NRC needs to ensure that it has adequate internal funding for all of these and other intra-agency goals. One NRC Commissioner noted that NRC needs to fully determine the budgetary and FTE commitments needed.

NRC is working towards resolution of some of these intra-agency issues. However, much more needs to be done before DOE turns over the system to NRC for operation and maintenance. NRC needs to ensure that all offices are fully

informed as to their roles and responsibilities with regard to the LSS. Additionally, NRC needs to ensure that LSSA responsibilities are met, including those outlined in NRC Manual Chapter 0109. It is important that these issues are addressed in a timely manner to help ensure that repository licensing actions by NRC are not unnecessarily delayed.

LSS IS ON A TIME CRITICAL PATH TO THE REPOSITORY CONSTRUCTION APPLICATION

Through the negotiated rulemaking for the LSS, DOE accepted the responsibility for designing and developing the LSS. At the time, DOE already had a system design and integration contractor that had begun working on an LSS. As a result, there was no practical alternative but to have DOE continue its developmental work. This was due to the tight time constraints imposed by the original HLW repository program schedule, which anticipated that DOE would submit its license application in 1995.

One senior NRC manager involved in licensing the repository believed that it would be unfortunate to have a license application ready, but not be able to process it due to the incompleteness of an LSS. One Commissioner also noted that although the delays that have occurred have not been all bad, it is time to "get back on track" and make the necessary decisions. This Commissioner stated that it is time to ensure that a firm commitment toward the LSS is in place.

The time for designing and developing an LSS is short if the system is to be ready for DOE's license application submittal by the year 2001. A 1992 preliminary NRC/DOE report noted that it normally requires about five years to procure, develop, implement, and test a major automated system like the LSS. Therefore, if DOE were to begin this process today, the system would not be ready until the year 2000. The report also noted that if the system is not developed on a schedule that makes it available for database loading four to five years before the submission of the license application, it is unlikely that the estimated 18 million pages of relevant material would be in the LSS system by 2001.

Accordingly, implementing a timely LSS is contingent on a number of actions, including NRC leadership towards resolution of the issues previously discussed. If after a reasonable period of time NRC and DOE come to an impasse, or if development of the LSS stalls again, NRC should have a contingency plan ready. Otherwise, it is unlikely that an LSS will be ready in time to serve its intended

purpose. If this occurs, NRC will have wasted several years of effort and approximately \$4 million it has spent to date on an LSS.

CONCLUSIONS

The NWPA requires NRC to license the construction of a HLW repository within three to four years. To meet this deadline, NRC has enacted a rule requiring the development of a Licensing Support System before DOE submits its license application. However, that rule only requires NRC to operate and maintain the system. It requires DOE to design and develop the system. Therefore, if DOE does not meet its LSS requirements under the rule, NRC cannot meet its requirements. Furthermore, NRC would be unable to meet its congressional mandate for licensing of the repository.

The LSS program has stalled over the past five years primarily due to delays in the construction license application schedule, personnel changes in DOE and NRC, changes in program direction, and lack of agreement over funding. Many of these delays may be attributed to a lack of a clear definition and agreement on the roles and responsibilities both between and within DOE and NRC. As a result, only six years remain in which to develop and implement an LSS prior to the scheduled repository license application date of 2001. This is the same time period that existed in 1989 when the license application was scheduled for 1995.

Accordingly, because of NRC's key mandated role for a timely licensing proceeding, NRC needs to take a strong, aggressive leadership role. The LSSA must ensure the resolution of longstanding, unresolved issues, including the development of formal agreements with DOE in a timely manner to keep the LSS on schedule and meet NRC's mandate to issue a final decision on the repository construction license application within three years.

RECOMMENDATIONS

We believe it is crucial that the LSS not interfere with the critical pathway of the license application. Therefore, we are making the following recommendations.

To ensure that DOE and NRC understand and agree upon key interagency issues, the LSSA should:

- (1) Obtain a formal commitment from DOE in the form of an interagency agreement or MOU on key aspects of the LSS. At a minimum, such an agreement should include such items as the respective roles of each agency, funding, and the LSS timetable.

To ensure that NRC understands and resolves key intra-agency issues and requirements, the LSSA should:

- (2) Develop a management plan for Commission approval that minimally includes items such as the roles and responsibilities of NRC staff in different offices, contractor support responsibilities, and internal funding for the LSS.

If after a reasonable period of time, DOE and NRC can not agree on key issues such as funding and timing or DOE can not meet its LSS design and development responsibilities, the LSSA should:

- (3) Develop a contingency plan for implementation of the LSS, or reevaluate NRC's commitment to ensure that an LSS is available before submittal of DOE's license application.

AGENCY COMMENTS

On March 13, 1995, the Deputy Executive Director for Nuclear Materials Safety, Safeguards, and Operations Support (DED0), responded to our draft report. He agreed with our recommendations. To ensure that NRC's effort is well-coordinated and focused, the DEDO said a Senior Management Team would be established to review the direction, roles, responsibilities, and user needs for the LSS. He noted, however, that because DOE's Civilian Radioactive Waste Management System Program plans are currently in flux on both the legislative and budgetary fronts that he doubted that DOE would be willing to sign a Memorandum of Understanding until these matters are resolved. Nonetheless, he agreed that NRC would provide a draft MOU to DOE by April 30. For the same reasons, he believed it was premature for NRC to develop a contingency plan at this time but agreed to do so at the appropriate juncture. The complete text of his comments are included as Appendix III.

OBJECTIVES, SCOPE, AND METHODOLOGY

The objective of our audit was to determine the status of the Licensing Support System (LSS) and to determine the issues that affect the LSS. We conducted our audit between October and December of 1994 at NRC headquarters and in Las Vegas, Nevada.

To develop an understanding of the LSS, we interviewed officials from the Offices of Information Resources Management, the General Counsel, Nuclear Material Safety and Safeguards, the Controller, and the Commission. We also interviewed past officials from the former Office of Licensing Support System Administrator. In addition, to get an understanding of the role of the Department of Energy (DOE) in establishing an LSS, we interviewed officials from DOE's Office of Civilian Radioactive Waste Management at the Yucca Mountain Site Characterization Office.

In December 1994, we observed meetings of the Licensing Support System Advisory Review Panel and the Licensing Support System Internal Steering Committee. We also reviewed documents and regulations relating to the Licensing Support System from 1986 to the present.

We conducted our audit according to generally accepted Government auditing standards.

CHRONOLOGY OF SIGNIFICANT LSS EVENTS

- 1982 Nuclear Waste Policy Act (NWPA) requires the Nuclear Regulatory Commission (NRC) to license a geologic repository in 3 years, plus an additional year for cause.
- 02/86 First Department of Energy (DOE)/NRC Licensing Support System (LSS) interagency coordinating committee meeting.
- 02/87 NRC and DOE sign an Agreement in Principle to develop a LSS. DOE agrees to have the responsibility for designing and providing the LSS.
- 07/87 NRC proposes rulemaking 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 and establishment of an advisory committee for negotiated rulemaking.
- 11/88 Draft LSS rule published for comment.
- 01/89 NRC establishes an Office of LSS Administrator (LSSA).
- 05/89 Effective date of LSS rule.
- 07/89 Meeting among Office of Management and Budget (OMB) and NRC re: LSS Operation and Maintenance (O&M) budget responsibility.
- 08/89 Letter from Chairman, NRC to Director, OMB stating that beginning in Fiscal Year 1992 (FY 92), DOE should budget for LSSA's office and O&M of the LSS.
- 11/89 Letter from LSSA, NRC, to Special Assistant to the Secretary for DOE Waste Management proposing alternative schedule for LSS development and budget in order to preclude DOE's cancellation of all development work and procurement for the LSS for FYs 90, 91, and 92 due to budget pressures.

Appendix II
NRC Needs to Provide Strong Direction for the LSS

- 11/89 Letter from LSSA to Acting Director, Office of Civilian Radioactive Waste Management (OCRWM), DOE confirming their agreement on a revised LSS design and development program. DOE has agreed to fund the LSS with \$3.1M in FY 90 and \$5.6M in FY 91.
- 12/89 First meeting of the LSS Advisory Review Panel (LSSARP).
- 12/89 At NRC Commission Meeting, DOE revises its repository program schedule and extends the date for submitting its license application to NRC from 1995 to 2001.
- 02/90 Letter from Acting Director, OCRWM to LSSA. DOE states there will be no funds set aside in the DOE budget for procurement of LSS equipment in FY 91. Schedules for FY 92 and beyond will be need based. Preparation for a Request for Proposal for a turnkey system will take place in FY 91 with an award in FY 92, funding permitting.
- 04/90 Letter from Controller, NRC to Deputy Director, OCRWM forwarding draft Memorandum of Understanding (MOU) on budgeting and paying for the LSS.
- 04/90 Meeting between Controller, NRC and Deputy Director, OCRWM in which DOE states it will not agree to include the LSS O&M costs in its FY 92 budget.
- 05/90 Meeting among DOE and NRC to discuss funding and budgeting for LSS O&M costs. DOE agrees to reconsider their previous position and identifies the following as important factors: the inconsistency of a bifurcated budget approach, DOE's view that the program was proceeding at a much faster pace than it could defend to OMB, and that DOE would not consider it appropriate to include LSSA FTEs in their budget.
- 05/90 Letter from NRC to DOE re: budgeting alternatives and requesting DOE's position on funding for LSS O&M costs.
- 05/90 Letter from DOE to NRC re: budgeting alternatives for funding LSS O&M costs and stating that DOE will not have a clear position on the pace of the LSS until a position on the pace of the waste management program as a whole is established.

- 05/90 Meeting among NRC and DOE on LSS development schedule. DOE states that LSS activities may be put on hold for some time. NRC advocates continuing LSS development to have a fully functional pilot in FY 92.
- 07/90 Letter from LSSA to Director, OCRWM explaining his concerns with DOE's anticipated deferral of LSS development and recommending that a pilot system be installed for test and evaluation purposes.
- 07/90 Letter from Director, OCRWM to LSSA notifying NRC that DOE will not pursue LSS procurement activities in FY 91 and FY 92, but DOE does plan to have the first module for pilot testing implemented in FY 95.
- 07/90 Letter from Director, OCRWM to Chairman, NRC forwarding draft MOU identifying guiding principles for interface during development and implementation of LSS.
- 08/90 Letter from LSSA to Director, OCRWM explaining why work on the LSS should not be stopped at this time.
- 08/90 Meeting between LSSA and Director, OCRWM in which DOE agrees to continue with development of the LSS in FYs 91 and 92 with the goal of having a pilot system ready for test and evaluation in 1993.
- 10/90 Meeting among NRC and DOE to discuss future LSS program responsibilities. NRC proposes that NRC assume responsibility for entire LSS program and that DOE budget for the entire LSS program.
- 11/90 Meeting among OMB, DOE, and NRC. NRC proposes that NRC manage all LSS activities and that DOE budget for those activities and reimburse NRC. OMB staff will recommend to their management that no funding be included in DOE FY 92 budget for LSS.
- 12/90 DOE informs NRC that if NRC wants to go ahead at this time with the LSS, NRC will have to budget for it.
- 02/91 Letter from Chairman, NRC to Secretary, DOE asking DOE's intentions re: its LSS design and development responsibilities and the extent to which DOE is willing to help support the future costs of the LSS program.

- 04/91 Letter from Under Secretary of Energy to Associate Director of OMB requesting a meeting among OMB, DOE, and NRC to resolve LSS scheduling and budgeting issues.
- 05/91 Letter from Chairman, NRC to Associate Director, OMB requesting a meeting among OMB, DOE, and NRC to discuss the realities of the LSS development schedule and to resolve budgeting issues.
- 05/91 Letter from LSSA to Director, OCRWM forwarding a proposed schedule for acquisition, design, development, testing, and loading of the LSS if the NRC were to assume DOE's design and development responsibility.
- 06/91 Telephone conference between Chairman and LSSA, NRC and Under Secretary and Director of OCRWM, DOE. DOE agrees that (1) NRC should take over LSS design and development, (2) the LSSA's schedule was realistic, and (3) DOE will reimburse NRC for its share of LSS development and use. DOE also agrees to support this change to OMB.
- 06/91 Memo to NRC Commissioners from LSSA, providing alternatives addressing possible future directions for the LSS program and recommending that NRC assume LSS development responsibility under existing design, functionality and schedule requirements.
- 07/91 At an LSSARP Meeting, while the recommendation [discussed above] was still before the NRC Commission, DOE announces an OCRWM initiative that would result in an automated information system capability called INFOTREAMS that could be used instead of LSS capture stations to capture DOE's LSS material.
- 09/91 Letter from Chairman, NRC to DOE, establishing a technical working group to re-examine the LSS design options to search for ways to reduce the overall costs of the LSS to the Nuclear Waste Fund and develop recommendations. The group is to focus specifically on benefits that could be derived by using INFOTREAMS and its developed software to minimize LSS development and operational costs.

- 02/92 The working group prepares draft recommendations, but DOE objects to completing the group's recommendations until the broader issues surrounding LSS program and budget responsibilities are resolved.
- 05/92 NRC Commission Paper, SECY 92-195, seeking direction on how program and budget responsibilities might best be shared between NRC and DOE. Paper provides three alternatives and recommends that DOE capture its LSS material plus all non-DOE LSS material and that LSSA develops the LSS and then operates and maintains it.
- 09/92 NRC Commission does not approve recommendation in SECY 92-195. They request another Paper regarding (1) the reporting relationship of the LSSA, (2) alternatives of DOE being responsible for capturing all documents, NRC capturing all non-DOE documents, and DOE operating and maintaining the system as well as capturing all documents [including any rule changes that would be needed to do this], and (3) options for NRC funding of its LSS responsibilities.
- 10/92 NRC Commission Paper, SECY 92-361, which proposes changes in organizational and reporting relationships of the Office of the LSSA. Paper recommends that Commission establish a Deputy Director position in the Office of Information Resource Management (IRM) who would also be the LSSA.
- 11/92 Letter from Deputy Director, OCRWM to LSSA discussing INFOSTREAMS and reiterating concern about other parties objections to DOE's capturing their LSS materials.
- 11/92 NRC Commission approves recommendation in SECY 92-361.
- 11/92 LSSA's Office reconstituted into an organizational unit within Office of IRM. A new Deputy Director, IRM/LSSA position will be established.
- 04/93 NRC Commission Paper SECY 93-107 "LICENSING SUPPORT SYSTEM PROGRAM AND BUDGET RESPONSIBILITIES" provides analysis of three alternatives requested in 09/92. NRC recommends that the LSS rule be changed to task DOE with the responsibility for the capture of all LSS documents and for the

operation and maintenance of the LSS. The LSSA's role would be limited to oversight and quality assurance for the design and operation of the LSS and for the completeness and integrity of the LSS database.

- 06/93 NRC Commission approves, with exceptions, recommendations of SECY 93-107.
- 10/93 Meeting of the LSSARP to obtain their views on the recommended approach (discussed above). LSSARP members cannot support the recommended approach as they feel this gives DOE too much control over the system. NRC recommends a compromise approach whereby the DOE would operate and maintain the system and the LSSA will serve as the Contracting Officer's Technical Representative (COTR) over DOE's O&M contract on the LSS.
- 02/94 DOE LSS responsibility moves from DOE headquarters to Yucca Mountain Site Characterization Office.
- 05/94 DOE initiates a re-evaluation of the LSS concept and implementation requirements.
- 12/94 In an LSSARP meeting, DOE announces: (1) it is no longer pursuing INFOTREAMS as a basis for the LSS, (2) it can no longer support the idea of LSSA as COTR, and (3) it proposes a new alternative for funding the LSS. In this alternative, NRC and DOE would negotiate and formalize an interagency agreement on the LSS. This agreement would also provide for DOE to request appropriations for LSS operation and maintenance costs. NRC would draw against a separate DOE account established for this purpose.

AGENCY COMMENTS ON DRAFT REPORT



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

March 13, 1995

MEMORANDUM TO: Thomas J. Barchi
Assistant Inspector General for Audits

FROM: Hugh L. Thompson, Jr.
Deputy Executive Director for Nuclear Materials
Safety, Safeguards, and Operations Support

SUBJECT: DRAFT REPORT: NRC NEEDS TO PROVIDE STRONG
DIRECTION FOR THE LICENSING SUPPORT SYSTEM

A handwritten signature in black ink, appearing to read "Hugh L. Thompson, Jr.", written over the typed name in the "FROM" field.

This responds to your memorandum dated February 13, 1995, transmitting the draft subject audit report.

We found that the draft report was well formulated, technically correct, an accurate characterization of the chronology of events, and well balanced in representing issues in an objective manner.

As your report points out, the Licensing Support System (LSS) has a nine-year history of setbacks and delays in which little substantive progress has been achieved despite numerous efforts on the part of NRC senior level management to resolve LSS funding and programmatic responsibilities with OMB and DOE. Given that DOE's Civilian Radioactive Waste Management System program plans are in flux on both the legislative and budgetary fronts, with Congressional action expected during this session, we seriously doubt that DOE will be in a position to make a binding commitment to the Commission on the LSS to resolve these issues. In fact, passage of some legislation under consideration would result in a reassessment on the part of the Commission regarding the scope, timing or even need for a Licensing Support System. Given this situation, we submit the following comments.

Recommendation 1

Obtain a formal commitment from DOE in the form of an interagency agreement or Memorandum of Understanding (MOU) on key aspects of the LSS. At a minimum, such an agreement should include such items as the respective roles of each agency, funding, and the LSS timetable.

Response

Agree in principle. The Licensing Support System Administrator (LSSA) has initiated and is well along in the development of a draft MOU which will include the coverage recommended in the draft report. However, preliminary discussions indicate that NRC and DOE have differing views in several areas, necessitating negotiation between the two agencies. Even if they can reach agreement on the text of a MOU, it is unclear whether DOE management will be willing to sign a memorandum of understanding with the NRC until its high level waste management system program plans are settled on both the legislative and budgetary fronts.

Completion date for NRC providing an initial draft MOU to DOE: April 30, 1995.

Appendix III
NRC Needs to Provide Strong Direction for the LSS

Recommendation 2

Develop a management plan for Commission approval that minimally includes such items as the roles and responsibilities of NRC staff in different offices, contractor support responsibilities, and internal funding for the LSS.

Response

Agree. We have undertaken a review of the LSSA roles and responsibilities as outlined in Manual Chapter 9.9, and agree that it should be updated to reflect reorganizations that affected the former Office of the LSSA as well as other NRC entities. (2) We agree with the need for closer coordination and communication among the LSSA and the offices that will be directly involved with licensing the High Level Waste (HLW) repository. In order to ensure that the LSS effort is coordinated and focused, a Senior Management Team including the LSSA, NMSS, and OGC, will be established to review the direction, roles, and responsibilities, and user needs for the LSS. (3) We believe that the internal funding questions may be amenable to resolution in the above noted MOU, and we will use that vehicle to minimize the budget exposure of the Commission.

(1) Completion date for LSSA completing its draft revisions to Manual Chapter 9.9: June 16, 1995. (2) Completion date for establishing the Senior Management Team: March 20, 1995. (3) As noted in response to recommendation 1, completion date for NRC providing an initial date MOU to DOE: April 30, 1995.

Recommendation 3

Develop a contingency plan for implementation of the LSS, or reevaluate NRC's commitment to ensure that an LSS is available before submittal of DOE's license application.

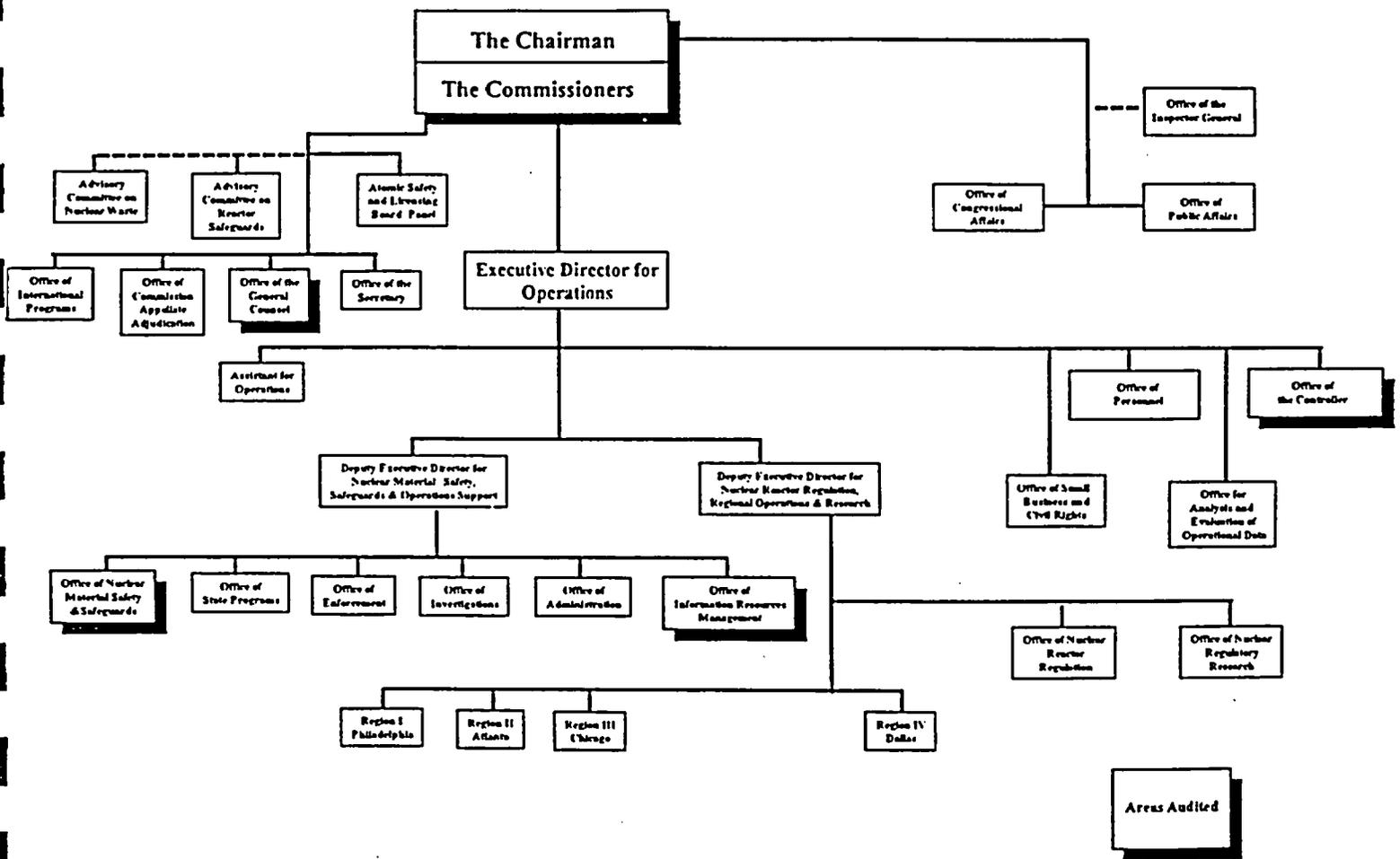
Response

Agree in principle. NRC and DOE must be able to recognize and acknowledge "triggering" events that presage a failure to execute. We can include such triggering events in our proposals for the MOU. However, given the uncertainty surrounding DOE Civilian Radioactive Waste Management System program plans due to pending legislative action, we believe that it is premature to develop a contingency plan for the LSS or re-evaluate NRC's commitment to ensure that an LSS is available before submittal of DOE's application.

Completion date: We are unable to determine a date for completion of recommendation 3 at this time. NRC senior management is closely following HLW legislative proposals and DOE actions affecting the schedule, funding, and prioritization of licensing a high-level waste repository, and will address this matter at an appropriate juncture.

cc: J. Taylor, EDO
J. Milhoan, DEDR
K. Cyr, OGC
R. Bernero, NMSS
R. Scroggins

U.S. NRC FUNCTIONAL ORGANIZATION CHART



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