October 13, 1999

MEMORANDUM TO: Potential Licensing Support Network (LSN) Participants

(See Attached List)

FROM: Daniel J. Graser

LSN Administrator

SUBJECT: LSN ADMINISTRATOR'S COMPLIANCE ASSESSMENT

PROGRAM GUIDELINES

Based on previous consideration by the former Licensing Support System (LSS) Advisory Review Panel (LSSARP) and the authority granted by the revised NRC Rules of Practice at 10 C.F.R. Part 2, Subpart J, the LSN Administrator (LSNA) is issuing a series of Guidelines as part of the LSNA Compliance Assessment Program.

The purpose of the Guidelines is to identify the assumptions made and issues considered under the former LSS Administrator's (LSSA) Compliance Assessment Program, and to document decisions reached at this point in time. The decisions will form part of the design basis for the LSN. Subsequent input from the LSNARP, its technical working groups, and NRC's project approval process will be documented and added to these guidelines as the LSN design begins to crystalize.

Many of these guidelines reflect NRC's reconsideration of previous LSSA proposals in light of the revisions made to the Nuclear Regulatory Commission's (NRC) Revised Rules of Practice, 10 C.F.R. Part 2, Subpart J (the Rule).

ADDRESSEES - MEMORANDUM DATED OCTOBER 13, 1999 Potential Licensing Support Network (LSN) Participants

SUBJECT: LSN ADMINISTRATOR'S COMPLIANCE ASSESSMENT PROGRAM GUIDELINES

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1. LICENSING SUPPORT NETWORK (LSN) ROLES AND RESPONSIBILITIES

The responsibilities of the Commission, the LSNA, and the participants under the LSN program arise from the LSN Rule and the roles of each defined therein. This section sets forth those responsibilities as they relate to the LSNA's Compliance Assessment Program.

The Commission

- Designate a Pre-License Application Presiding Officer prior to LSN scheduled availability.
- Specify the jurisdiction of the Pre-License Application Presiding Officer.
- Rule on appeals of orders of the Pre-License Application Presiding Officer as permitted under the LSN Rule.

The Secretary of the Commission

- Reconstitute the LSS Advisory Review Panel as the LSN Advisory Review Panel (LSNARP).
- Appoint additional members to the LSNARP consistent with the requirements of the Federal Advisory Committee Act (5 U.S.C. app. 1).
- Maintain the official docket of the licensing proceeding and determine whether the license application can be effectively accessed under the electronic docket rules.

LSNARP

- Provide advice to the NRC on the fundamental issues of the type of computer system necessary to access the LSN effectively.
- Provide advice to the Secretary of the Commission on the operation and maintenance of the electronic docket established for the licensing proceeding.
- Provide advice to the LSNA on solutions to improve the functioning of the LSN.
- Provide advice on format standards for providing electronic access to participant website documentary materials.
- Provide advice on the procedures and standards for the electronic transmission of filings, orders, and decisions during both the pre-license application phase and the hearing phase.

 Constitute such subgroups or subpanels (e.g., the Technical Working Group) as determined necessary by the Secretary of the Commission.

LSNA

- Act as NRC's representative to the LSNARP.
- Notify the Commission of LSN-related issues or incidents which would preclude NRC performing the license review in the Congressionally directed three year time frame.
- Identify technical and policy issues relating to implementation of the LSN for LSNARP and Commission consideration.
- With the approval of the Atomic Safety and Licensing Board Panel (ASLBP)
 Chairman, establish operating procedures and policies for the LSN and the electronic docket.
- Implement, with the advice of the LSNARP, a configurable set of standards for header content and format; image and text files; record packages; and the use of unique item identification numbers (document accession numbers).
- Implement, with the advice of the LSNARP, policies, procedures and guidelines for LSN security; priority access to the LSN; website search and response times; website availability (uptime); and website backups.
- Establish standards specifying the publication, on participant websites, of the website's weekly (minimum) server statistics, including number of "hits," problems, added documents, corrected/modified documents, etc.
- Establish, maintain, and operate an LSNA baseline computer system for monitoring the overall LSN system performance and individual participant's compliance with their responsibilities under the LSN Rule.
- Establish and operate a notification procedure that will communicate to participants information about correction, replacement, or deletion of materials previously published on participants' websites.
- Establish the formats for, and schedule the submission of, all LSNA Compliance Assessment Program documentation and certifications required of participants, such as the LSN Participant Compliance Program Plan.
- Establish target dates by which participant website document collections should be ready to connect to the LSN portal site.

- Establish target dates for operational policies, procedures and standards to be promulgated to participants.
- Implement the technical standards endorsed by the LSNARP Technical Working Group.
- Coordinate the resolution of problems experienced by participants regarding LSN availability.
- Coordinate the resolution of problems regarding the integrity and completeness of participant documentary material presented on their websites.
- Provide periodic reports to the Commission (and to the LSN community) on the status of LSN functionality and operability.

LSN Participants

- Designate an official who will be responsible for administering their LSN responsibilities.
- Designate technical points of contact for various functions including who will act as webmasters for their site, who is responsible for the website help desk, and who should be contacted for loss of service and related problems.
- Establish procedures to implement the requirements of Section 2.1003 of the LSN Rule.
- Provide training to their staff on the procedures described above.
- Obtain the computer system necessary to comply with the requirements for electronic document production and service.
- Make all their documentary material available in electronic format in accordance with Section 2.1003 of the LSN Rule.
- Make available (for inspection and copying) any document not provided to other parties in electronic form within five days after it has been requested.
- Comply with all standards for presentation of documentary materials established by the LSNA.
- Comply with all operational and functional standards regarding their website operation and maintenance as established by the LSNA and the LSNARP Technical Working Group.

- Submit and maintain all LSNA-required Compliance Program Documentation on the schedule established by the LSNA.
- Maintain and publish data on their website operation and functionality as required by the LSNA.
- Cooperate in the LSNA review of corrected, changed, or deleted documents on their website.
- Cooperate in the advisory review process established by the NRC under Section 2.1011(d) of the LSN Rule.
- Demonstrate substantial and timely compliance with the requirements of Section 2.1003 of the LSN Rule at the time it requests participation in the licensing proceeding.
- Transmit all filings in the adjudicatory proceeding on the license application electronically according to established requirements.

Pre-License Application Presiding Officer

- Rule on disputes over the electronic availability of documents during the prelicense application phase.
- Rule on any claim of document withholding.
- Prescribe procedures that effectively safeguard and prevent disclosure of Safeguards Information to unauthorized persons.

Presiding Officer

- Receive and dispose of all motions either by written or oral ruling.
- Appoint a discovery master to resolve disputes between parties concerning informal requests for information.
- Direct the parties, interested governmental participants, or their counsel to appear at a specified time and place to consider matters relating to the proceedings.

2. HOSTING OF PARTICIPANT DOCUMENTARY MATERIAL

Under Section 2.1003 of the LSN Rule, the DOE, NRC and each other potential party, interested governmental participant, and party are required to make available to one another all their documentary material, as defined in Section 2.1001. The documentary material is to be made available in an electronic file including text, image and header. When materials are not suitable for imaging or searchable full text or are considered privileged, an appropriate electronic header must be made available. As currently contemplated, participants will make their documentary material available through a website on the Internet

During discussions at the LSSARP meeting held in Las Vegas, Nevada, on February 24, 1998, it was noted [Official Transcript of Proceedings, LSSARP Meeting, February 24, 1998, p.144] that NRC is prohibited from paying expenses for participants in licensing proceedings by a provision of the FY 1993 Energy and Water Development Appropriations Act (5 U.S.C. 504 app.). Because this codified prohibition on paying intervenor expenses applies to all funds appropriated under all Energy and Water Development Appropriations Acts, this provision arguably applies to the DOE as well. (SECY-98-237, Final Rule, Part 2, Subpart J, "Procedures Applicable to Proceedings for the Issuance of Licenses for the Receipt of High-Level Radioactive Waste at a Geologic Repository," at 5 (Oct. 19, 1998).) Several participants at that same meeting expressed concern over their ability to fully participate in the LSN process without some funding assistance from the Federal Government.

During the development of the LSN Rule, some thought was given to the prospect of the LSNA hosting a website for participants who could not afford to establish their own site or affiliate with other participants in a joint website. After a detailed analysis of this question, it has been determined that the only way that this could occur would be as a result of specific congressional approval of a DOE budget line item which could then be utilized by the NRC (through a Memorandum of Understanding between DOE and NRC) to assist small entities in providing electronic access to their documents through an LSNA-hosted website.

The LSNA is committed to providing participants with effective access to the LSN process, within statutory limitations. In order to best gauge the approach necessary to achieve this end, participants should consider the following issues and be prepared to provide input to the LSNA:

What are the estimated costs for establishing your website and converting your current documentary material backlog for presentation on that website?

What are your calculations for the cost of maintaining that website over time? (Generally, maintenance costs are considered to approximate 20% of initial implementation costs per annum.)

What is the possibility that you can affiliate with other participants in a joint website to defray individual expenses?

If there are no Federal funds available to assist participants in their responsibilities under the LSN Rule, will you be unable to participate in the LSN process?

The LSNA will assess the responses to these questions and formulate an appropriate strategy to help ensure effective participation opportunities for all those interested.

3. DEFINITION OF DOWNTIME AND SYSTEM AVAILABILITY

Under the previous LSS program, system downtime was defined as that period of time during which the LSS was unavailable for access by participants. Should downtime occur during the three-year licensing hearing window, the hearing process would be extended on a day for day basis for each day that the LSS was unavailable. This procedure was based on the design of the LSS - a centralized system under the control and management of the LSSA, which would be equally available (or unavailable) to all participants at any given time. Participants were responsible for their own communication lines (or data links) into the LSS. The failure of a particular participant's communication link to the LSS was not considered in determining LSS downtime; only the general unavailability of the LSS itself would trigger a potential extension.

The use of the Internet as the underlying device around which to structure the LSN requires a change in the definition of downtime as that concept relates to the LSN. No longer will there be a system like the LSS, a central repository of participant documentary materials the unavailability of which would logically trigger the extension described above. The LSNA may conclude that it is optimal to establish a central portal site through which access may be gained to individual participant websites. Each participant will control its own documentary materials on a website operated and maintained either by itself or jointly with other participants. There may be occasions when one or more participant websites are down and unavailable, while at the same time all other participant websites are up and available. Similarly, regional communications difficulties might impact a particular participant's ability to access other participants' websites through the Internet.

Based on the above, the LSNA has determined that the concept of a day for day extension of the hearing period will only apply when either the LSNA portal site or the NRC server hosting the licensing hearing docket is down and unavailable to participants. The LSNARP Technical Working Group may consider appropriate measures to help ensure the availability of participant documentary materials by minimizing potential downtime. Additionally, the LSNA, in consultation with the LSNARP Technical Working Group, will issue guidelines on standards of practice for website backups, performance, availability, and security applicable to participant websites in an effort to minimize or eliminate downtime on individual participant sites.

4. PARTICIPANT IDENTIFICATION AND PRESENTATION OF DOCUMENTARY MATERIAL

Under Section 2.1003 of the Rule, NRC, DOE, and each other potential party, interested governmental participant, and party are obligated to make available to one another all their documentary material, as defined by the Rule. This availability fulfills discovery obligations related to the licensing actions for the potential repository at Yucca Mountain. The documentary material is to be provided in electronic format with a text, image and header file. In the case where materials are not suitable for image or searchable full text or are considered privileged, an appropriate header must be made available. As currently contemplated, participants will make their documentary material available through a website on the Internet.

As discussed during previous LSSARP meetings, the burden of having a participant generate a separate listing of documents that it determines are not relevant to the licensing proceeding (for review by other participants) far outweighs the usefulness of such a listing. [Official Transcript of Proceedings, LSSARP Meeting, March 22-23, 1995, pp. 200 et seq.] Under Section 2.1009 of the Rule, a participant must certify on the record that all of its documentary material as defined in the Rule has been made available, and this certification provides a measure of assurance that no relevant documents have been withheld. Under Section 2.1004 of the Rule, a participant can request a copy of any other participant's document that it maintains has not been made available in electronic form. Access to that document must be provided within five days, unless a different time is set by the Pre-License Application Presiding Officer or the Presiding Officer. Under Section 2.1012 of the Rule, if a participant does not comply with the above requirements, it could face adjudicatory sanctions up to and including denial of party status. In the case of DOE, the appropriate prehearing sanction could be a declaration that the tendered license application is not acceptable for docketing.

In light of the above, the LSNA will rely on participant certifications that they have made all their documentary material available to the other participants, and will further rely on the participants to provide prompt notice of any potential violation of such certifications. The LSNA will review participant claims of documentary material disclosure non-compliance and make recommendations on the record to the Pre-License Application Presiding Officer or the Presiding Officer regarding an appropriate resolution and/or sanction. [PP #2 provides more detail on sanctions for non-compliance.]

5. PRIORITIZATION OF SUBMISSION OF BACKFILE DOCUMENTARY MATERIAL

5.1 Scheduling of Availability of Documentary Material

Section 2.1003(a) of the LSN Rule requires that the DOE and the NRC make their documentary material electronically available "beginning in the pre-license application phase." Section 2.1001 of the LSN Rule states that the pre-license application phase begins "30 days after the date the DOE submits the site recommendation to the President." The DOE's latest program plan, Civilian Radioactive Waste Management Program Plan, Rev. 2, DOE/RW-0504 (July 1998), estimates the date of the site recommendation submission to be July 2001. Based on that schedule, the DOE and NRC will have to make their documentary materials available beginning approximately August 2001.

If the time frames stated above are accepted, the LSNA and the LSNARP have approximately 22 months from the date of the October 1999 LSNARP meeting to design and implement the LSN, thoroughly test it, and make it available to the LSN participants. At that time, the DOE and NRC websites would have to be fully loaded with their respective documentary material. Thirty (30) days after the site selection decision becomes final (after review by Congress) all other participants would make their documentary material electronically available. Because of the tight time frame for design, implementation, testing, acceptance, performance tuning, and troubleshooting of the LSN, the LSNA has determined that a schedule of electronic availability must be established for participant documentary material. This schedule is necessary to allow the LSNA to test the system's performance characteristics well before the LSN is scheduled to be fully functional under the LSN Rule.

Based on industry estimates, it will take approximately 18 months to design, implement, test and finalize a system of this type. Consequently, the LSN participants, including the DOE and NRC, will have to begin making a portion of their documentary material electronically available within a time frame that permits integration, testing and finalization within that 18 month period. A significant percentage of each participant's document collection will have to be made available prior to the end of this period in order for the LSNA to be able to size the system, evaluate system performance characteristics and connectivity, and extrapolate the results into a meaningful performance model. This model will then be used to modify and finalize the system based on desired performance characteristics.

The LSNA is proposing that LSN participants make at least 25% of their then-existing documentary material available on their individual websites by January 31, 2001, with an additional 25% available by April 30, 2001. While it is true that the largest number of documents will be housed in the DOE and NRC document collections, the LSNA will need to test the connectivity and response times across all participant websites, to help measure full LSN functionality. The LSNARP Technical Working Group will be working with the LSNA to provide input regarding the LSN design on an accelerated basis, thereby helping to achieve timely initial implementation.

5.2 Prioritization of Submission of Backfile Documentary Material

The issue of prioritizing the submission of backfile documentary materials has arisen at past LSSARP meetings. Some participants were concerned that the most significant documents needed to be loaded first into the LSS, to provide more time for review prior to the start of the licensing hearing. Based on the currently envisioned schedule for the availability of participant documentary material under the LSN Rule, this issue seems to have been rendered moot. All DOE and NRC backfile documentary material will have to be made available in electronic form by August 2001, which is less than two years in the future. Documentary material generated after the LSN is operational will be made available reasonably contemporaneous with its creation.

Under the existing LSN schedule, by the time LSN participants could agree upon priority document categories, and the DOE and NRC had undertaken what would undoubtedly be the costly process of modifying their document systems to permit retrieval of documents by subject category, the complete backfile collections can be loaded and made electronically available. In fact, whether these document systems can be modified in that manner is doubtful. In any event, because it appears that priority loading of documentary materials by subject category would be inefficient and ultimately unnecessary, such a process is not contemplated for the LSN.

6. RECORDS MANAGEMENT AND OFFICIAL DOCKET REQUIREMENTS

The LSNA and the Atomic Safety and Licensing Board Panel (ASLBP) have the responsibility for establishing records management guidelines for the LSN and, in conjunction with the Office of the Secretary, for the NRC electronic docket. The requirements related to the LSN will help ensure that participants are able to effectively participate in the discovery process; those requirements related to the NRC electronic docket will help ensure that parties to the licensing hearing and the Presiding Officer can rely on the integrity and completeness of electronically filed motions and exhibits. The LSNA, with the advice of the LSNARP Technical Working Group, will establish standards for participant website operation and maintenance covering such topics as security, priority access, site availability (uptime), site response time, backup policy, and the use of bibliographic headers and unique item identification numbers. The guidelines described in this section are primarily concerned with documentary material presented on a participant website that are offered as official exhibits for the licensing docket, and which will eventually be retired to the National Archives and Records Administration (NARA) under approved disposition schedules as official agency records. Those files must come under control of NRC in order to satisfy NARA requirements.

6.1 Best Available Copy

Section 2.1003 requires a participant, concurrent with the production of an electronic file of documentary material, to provide an authentication statement "that indicates where an authenticated image copy of the document can be obtained." In accordance with normal adjudicatory procedure (and consistent with the approach taken under the LSS program), the participant will also have to certify under Section 2.1009(b) that the image made available on its website is the best available copy of that authenticated image copy. If that document is offered as an exhibit for inclusion in the electronic docket, the same standard will apply.

6.2 Use of Hyperlinks Within Website Documents

A document published on a participant website may contain hyperlinks to other supporting referenced documents that also reside on that website, permitting a viewer to easily navigate within a website and thereby more easily access the reference for further information. However, when that document is submitted as an exhibit to the NRC electronic docket, the hyperlinks to other referenced documents will be rendered ineffective. Therefore, a participant will have to ensure that, when submitting a document from its website as an exhibit, all referenced supporting documentation is properly assembled as a record package (in a parent/child context) and submitted in that form. The LSNA and the LSNARP Technical Working Group will develop additional procedures defining the responsibility for assembling a record package when a participant wants to submit another participant's document (containing hyperlinks) as an exhibit.

6.3 Digital Signatures

Documents presented on a participant's website will not be required to bear digital signatures. A certification by a participant's designated official that the documents presented are "true and accurate representations of documents maintained in the normal course of business in accordance with established procedures" will be acceptable. This certification, in addition to the mandated method of submission of material to the electronic docket described below, will reasonably ensure the integrity and completeness of participant website materials and tendered filings and exhibits.

6.4 Electronic Information Exchange

The Agencywide Documents Access and Management System (ADAMS) has been developed to be the NRC's electronic document and records management system. An integral part of ADAMS is the capability to intake, process and disseminate electronic documents that are either submitted to the Agency or are created within the Agency. The process of providing this capability is called electronic information exchange (EIE). EIE allows both users internal to the NRC as well as those external to NRC to exchange electronic documents in a secure manner via the Internet.

The development and use of EIE in the NRC environment is intended to address the mandate of the Government Paperwork Elimination Act, Title XVII of Public Law 105-277, that provides for Federal agencies, by October 21, 2003, to give persons who are required to maintain, submit, or disclose information the option of doing so electronically. It is also intended to provide for the use of electronic authentication (electronic signature) methods to verify the identity of the sender and the integrity of electronic content where necessary. The Act specifically provides that electronic records and their related electronic signatures are not to be denied legal effect, validity, or enforceability merely because they are in electronic form.

The NRC is conducting a pilot EIE program. The objective of this pilot program is to institute business processes that will enable the NRC and the customers and clients of the NRC to electronically interact and communicate in a secure manner via the Internet. This undertaking is expected to provide the basis for further evaluation and analysis that will result in operational and procedural improvements to the EIE process prior to agency-wide implementation. The NRC pilot EIE design is based on a public key infrastructure (PKI) that provides the capability to exchange electronic documents in a secure manner via the Internet using Secure Sockets Layer (SSL3) technology.

The NRC shall provide for overall administration of the EIE process through the Local Registration Authority (LRA) and the Local Registration Authority Administrator (LRAA). The LRA shall create and maintain an Access Control List (ACL) consisting of authorized internal and external EIE participants. Each participant shall provide the LRA with vital information such as name, organization name, phone number, and e-mail address. The LRA shall verify participant information (via e-mail) before adding them to the ACL. The information provided to the LRA is entered into a secure database and is used to create and distribute secure account information for access to the NRC EIE external server (external server) for the dissemination of electronic documents. The LRAA shall use the ACL to validate authorized individuals

requesting digital signature certificates. Both the LRA and the LRAA may be contacted via e-mail at LRAA@nrc.gov.

LSN participants may use their existing workstations with standard desktop configuration to submit documents to the NRC electronic docket. The recommended workstation configuration requires a Pentium 133 Mhz (or higher) with a minimum of 16 MB of RAM, and access to the World Wide Web through an Internet Service Provider. The operating system should be either Windows NT or Windows 95 (or higher). In addition, each workstation must be equipped with browser software consisting of either Netscape Navigator or Communicator (version 4.0 or higher) or Microsoft Internet Explorer (version 4.0 or higher). All other software needed in the EIE process shall be available via the NRC EIE external server home page.

7. PUBLIC AVAILABILITY OF DOCUMENTARY MATERIAL

Under the former LSS program, the LSS was intended to be a closed system with access restricted to dedicated terminals or workstations. Section 2.1007 of the former LSS Rule required both the NRC and DOE to provide such terminals at their Headquarters and Local Public Document Rooms to allow public access to LSS document headers and images (during the pre-license application phase) and document headers, images and searchable full text (during the hearing phase). The current LSN Rule, in Section 2.1007(a)(2), states that "(a) system to provide electronic access to the Licensing Support Network shall be provided at the headquarters Public Document Room of NRC, and at all NRC Local Public Document Rooms." An identical requirement is placed on the DOE under Section 2.1007(a)(1). Section 2.1007(a)(2) has been amended, effective October 12, 1999, to require that "(a) system to provide electronic access to the Licensing Support Network shall be provided at the NRC Web site, http://www.nrc.gov, and/or at the NRC Public Document Room beginning in the pre-license application phase."

The NRC is amending its regulations to reflect the use of a new electronic record keeping system for NRC records. The NRC is establishing the Agencywide Documents Access and Management System (ADAMS) to provide for the electronic submission, storage, and retrieval of NRC official records. When ADAMS becomes operational, all NRC official records that are normally publicly available, under the Commission's regulations, will be available to the public electronically through ADAMS. Publicly available records will be accessible electronically from the ADAMS Public Library component on the NRC Web site, http://www.nrc.gov (the Electronic Reading Room).

When ADAMS becomes operational, NRC will discontinue furnishing paper and microfiche copies of its publicly available records to the NRC Public Document Room (PDR), located in Washington, DC, and the Local Public Document Rooms (LPDRs). Moreover, because of budget constraints and the improved access to newly received and created records via the NRC Web site under ADAMS, the Commission will discontinue funding of the LPDR program beyond Fiscal Year 1999.

ADAMS will provide the following added benefits that should preclude or minimize any public concerns regarding the impact from discontinuing the LPDR program:

- ADAMS Internet access will provide access to new records in full text and image.
- ADAMS will provide an improved electronic search capability. Under the existing system, only the bibliographic indexes and abstracts for most records are available from the online NUDOCS; similarly, only a fraction of the documents in the PDR's Bibliographic Retrieval System (BRS) contain full text.
- New records will be available to the public within days instead of the two weeks or longer it now takes for LPDRs to receive microfiche or paper copies of new accessions.

- Internet public access to the NRC Web site will provide direct access to a much broader range of the public than just to those who, because of their close proximity, have access to the PDR and LPDRs.
- Documents specific to the LSN will be readily identified and accessible through the NRC Web site.

As the discussion above makes clear, the dissolution of NRC Local Public Document Rooms will prevent the LSNA from providing access to the LSN through LPDRs. However, the public will have access to the LSN through the Internet. Additionally, the Commission will continue to provide LSN access at the NRC Headquarters Public Document Room located in Washington, D.C.

8. AMENDED / CHANGED DOCUMENTS

Under the former LSS program, Section 2.1003 of the LSS Rule required participants to submit a bibliographic header, an ASCII file (where available) and an image for all their documentary material to the Licensing Support System Administrator (LSSA) for processing and entry into the LSS. The DOE and NRC were required to provide a bibliographic header, an ASCII file and an image for all their documentary material. Section 2.1004 of the LSS Rule required all participants to access their documentary materials within sixty days of that material's entry into the LSS (during the pre-license application phase) or within five days of its entry (during the hearing phase) and verify that the documentary materials had been entered correctly. If a participant realized that one of its documents, as entered into the LSS, was incorrect in some way, the participant was required to notify the LSSA and request appropriate changes be made by the LSSA. Once the above time periods had expired, the participant desiring to make corrections to a document had to submit a corrected version as a separate document with its own header. The original version of the document would remain in the LSS, and its header would be amended to identify the corrected version.

Under the LSN program, it is envisioned that participants will control their own websites containing their documentary material. They will be responsible for the completeness and correctness of the documentary material presented there, and will be required to certify to that completeness and correctness. Because all other participants must be able to rely on the integrity of the documentary materials presented on participant websites, the LSNA has determined that a policy concerning amended or changed documents is appropriate.

Any participant who determines, within five days of initial presentation, that a document presented on its website needs to be changed should make the change and notify the LSNA of the nature of the change. The LSNA will post a notice of the change on the LSN portal site for the information of all participants.

If a change is required to a document that has been present on a participant website for more than five days, the responsible participant will be required to add the corrected document (and its corresponding header, which identifies the earlier version) as a new document on its website. The participant will also be required to notify the LSNA of the specific change(s), and send a broadcast message to all other participants informing them of the change(s). The LSNA will post a notice of the change on its LSN portal site.

If a participant determines that a document needs to be removed from its website, the participant will be required to notify the LSNA of such intent. The LSNA will review the participant's justification for the removal and refer the matter, with recommendation on removal, to the Pre-License Application Presiding Officer or the Presiding Officer, as appropriate, for final resolution prior to any removal. When a document is removed from a participant website, the participant will be required to send a contemporaneous broadcast message to all other participants informing them of the removal. A notice of the removal will also be posted on the LSN portal site.

9. MONITORING SYSTEM

As part of its responsibilities under the LSN Rule, the LSNA will establish a system designed to monitor participant activity within the LSN program and to generate informational reports of such activity. The objectives of such a monitoring system are twofold:

- to give participants reasonable assurance of the integrity of presented documentary material and of participant compliance with their responsibilities under the LSN Rule; and
- to obtain usable statistical data for informational and system management purposes.

The monitoring system, as envisioned, will be primarily an automated one, utilizing software that will scan participant websites and gather data about website content and website activity. LSNA staff will analyze the data gathered in this fashion and make determinations regarding participant compliance and system management issues. The types of data that the system will gather on each website include:

- how many site records have been added since the last monitoring "sweep"?
 - number of bibliographic header records
 - number of text files
 - number of images
- have any files been changed within five days of being added?
- have any files been changed more than five days after being added?
- have any files been removed?
- total number of documents cumulative to date
- has the size of any file changed?
- how many "hits" has the website recorded?
- what response time has the site provided?
- has the site suffered any downtime?

The information gathered will assist the LSNA in measuring participant compliance and in assessing the effectiveness of the LSN operation. Information obtained through monitoring will routinely be published on the LSNA portal site, after analysis and appropriate follow-up actions have been completed. For example, if a monitoring "sweep" of a participant's website reveals that a document has been changed in some way, LSNA staff will contact that participant to determine the nature of the change before publishing a notice of the change on the LSNA portal site. The LSNA staff analysis will operate on an exception basis, investigating out-of-the-ordinary occurrences discovered by the automated monitoring "sweep".

10. SITE AUDITS

During previous presentations to the LSSARP [see Official Transcript of Proceedings, LSSARP Meeting, April 14-15, 1994, pp. 9 et seq.], the LSS Administrator presented a proposed Compliance Assessment Program that included the establishment of an Audit Program which would, among other activities, conduct site audits of a participant's document processing operations. It was proposed that a quality control inspection of the end product, that is, documentary materials submitted to the LSSA for electronic processing, would not be sufficient to provide reasonable assurance of participant compliance with the requirements of the LSS program. Instead, the LSSA would incorporate into its quality assurance activities an auditing program with on-site visits to participant facilities. This would allow the LSSA to oversee LSS program requirements including program planning and scheduling, personnel selection and training, procedure development and control, handling of procurement specifications for compliance, and interactions between the participant and the LSSA.

Other quality assurance controls proposed under the former LSS program included activities that examined the accuracy and completeness of participant-submitted LSS materials through strict quality control reviews and inspections of items such as document headers, images and text; error identification and correction activities; and the tracking of participant submissions against an established submission schedule.

Under the current LSN program, the LSNA has determined that audits of participants by on-site visits are not considered necessary to ensure compliance with program requirements. Each participant will be required to certify its compliance with the LSN program requirements under Section 2.1012 of the Rule. Available technology will allow the LSNA to monitor participant websites and determine whether each item of documentary material is represented by a header, image, and text file (as appropriate); whether materials on the website have been changed or removed; whether materials on the website have been made available in accordance with an LSNA-established schedule; whether participant websites have met LSNA-established performance guidelines for response time and downtime; and whether the materials on the website are presented in an acceptable and useable format. Based on a participant request or on an LSNA recommendation, and as determined by the Pre-Application Presiding Officer or the Presiding Officer, a site audit of participant facilities might be ordered, but such would be the exception rather than the rule. Elimination of routine participant site audits as part of the LSNA Compliance Assessment Program is considered to be both appropriate and cost-effective in light of currently available technology.

11. SANCTIONS FOR NON-COMPLIANCE

Under the former LSSA Compliance Assessment Program, the LSSA was responsible for evaluating and reporting on (i.e., certifying) the status of LSS participants' compliance with their obligations under the LSS Rule. If a participant was found not to be in compliance, the LSSA had the authority, subject to review by the Pre-License Application Presiding Officer or the Presiding Officer, to deny that participant access to the LSS. This sanction was available under the old LSS program because the LSS was a closed system under the control of the LSSA. With the revision of the Rule and the introduction of the Internet as the underlying structure of the LSN, the LSNA no longer has access control to the participant websites where the LSN materials will reside. While the LSNA is considering the option of operate a central portal site that will simplify access to participant websites, the very nature of the Internet provides many avenues of access to individual participant websites that cannot be controlled by the LSNA. Thus, denial of access is no longer an available sanction for a non-complying participant.

However, Section 2.1012 (b)(1) of the Rule states that a potential party to the licensing proceeding who cannot demonstrate substantial and timely compliance with the requirements of Section 2.1003 relating to the availability of its documentary materials will not be granted party status. Additionally, a party may be denied permission to use specific documentary materials in the hearing if that material was not previously made available to the other parties. These sanctions would be administered and imposed by the Presiding Officer as part of the adjudicatory process.

In light of the above, the LSNA will review participant non-compliance issues and make recommendations to the Pre-License Application Presiding Officer or the Presiding Officer regarding appropriate adjudicatory sanctions.

12. TECHNICAL ALTERNATIVES FOR LSN IMPLEMENTATION

This section is a discussion of alternatives for implementing an NRC-operated, Internet based computer network intended to address various requirements of the NRC's interaction with the greater LSN. These requirements include assisting with assessment of participant compliance, expediting access to LSN information, managing and monitoring the LSN, and administrating policies and procedures of the Licensing Support Network Administrator (LSNA).

A description of requirements for participant sites is not within the scope of this document. However, some of these will be delineated as assumptions -- with the realization that these may be revised based on working group discussions -- and discussed to the extent they are impacted by the alternatives. The baseline system functionality needed even in the total absence of an NRC web site devoted to the LSN is outlined separately. Finally, the alternatives for the NRC sponsored and operated facility are described.

12.1 Assumptions Regarding Participant Site Requirements

Participants will publish all their documents related to the licensing process on the Internet through the facilities of an HTTP (HyperText Transport Protocol) server (AKA "web server"). These documents will be static in nature rather than constructed "on-the-fly" by one server or another. The documents will be available to any authorized party (as defined by the LSNA, perhaps including the general public) through a standard data exchange method and a HyperText Markup Language (HTML) hyperlink to every document will be provided on the participant's LSN web page or subordinate pages reachable from the LSN page through hyperlinks.

Participants will publish documents only in LSNA-mandated data representation formats, e.g., Portable Document Format (PDF), HTML, and Tagged Image File Format (TIFF). Participants will also provide appropriate metadata, e.g., bibliographic headers, and cross-references for each document.

Participants will maintain indices of all published material in a manner permitting arbitrary searching of document content, synopses, and metadata using standard web tools such as browsers and robots.

Participants will follow policies and procedures promulgated by the LSNA to ensure acceptable data integrity of published documents.

Participants will follow policies and procedures as determined by the LSNA intended to ensure acceptable site availability, performance, stability, and security.

Participants will provide access to information on their web facilities as necessary to allow a level of monitoring that provides for LSNA oversight.

12.2 A Baseline System

The baseline NRC LSN system is intended to address primarily the in-house needs of the NRC's Office of Nuclear Material Safety and Safeguards / Division of Waste Management (NMSS/DWM) staff. This functionality will be present in all of the alternatives described below. These functions are not included in the description of the basic alternative because they are, for the most part, invisible to those outside the NRC and may not necessarily be web-based. These elements are not expected to vary in kind between the alternatives, but may differ in detail. They include:

- A facility that monitors the "health" of the LSN checking on participant site availability, performance, and integrity.
- A component that will automatically traverse participant web sites and verify the availability and integrity of published documents.
- A database for storage and retrieval of arbitrary data.
- Security elements allowing secure remote administration, defense against compromise, and detection of attempts to compromise.
- A reporting facility to provide timely information to the LSNA.
- System assuredness elements, e.g., system backup, environmental controls, and uninterruptible power supply.

12.3 Alternatives for NRC LSN Web Site

Three different conceptual descriptions of an LSN website configuration are outlined below in increasing order of complexity and functionality. Increased complexity and functionality inevitably leads to increased costs; however, the relationship is not linear. Projected costs for these scenarios cannot be determined at this time due to insufficient information and, in any case, is beyond the scope of this document.

12.3.1 Least Complex

This alternative is intended to provide basic web functionality in addition to the baseline. The primary design focus of this alternative is to satisfy the basic requirements of the LSN participants for web access and to remain as simple as possible.

The system is envisioned as a simple "home page" or jumping-off point providing hyperlinks to LSN participant sites and other relevant material. This should be possible with a small number of HTML pages, perhaps only one. Active elements, e.g., Common Gateway Interface (CGI) scripts or HTML forms will not be present. The system will remain static for the entire prediscovery phase. No revisions to the publicly-available pages are anticipated.

Adding this level of functionality to the baseline will require little more than implementation of a web server and authorship of several pages of HTML.

12.3.2 Medium Complexity

The focus of this alternative is providing information through the web to the entire community of interest in as simple-to-build-and-maintain a manner as practicable. In addition to the alternative noted in section 12.3.1, the NRC LSN web site will provide a central point of access to the general public and LSN participants of all LSN information, including such additional elements as:

- A centralized search facility that, when queried, will survey participant sites and return references to all matching documents on all participant sites.
- Publication of statistical information on LSN participant sites, including on site content and performance.
- Aggregation and publication of overall LSN access and usage statistics, e.g., number of hits.
- An online forum in which interested parties can discuss or exchange information regarding LSN matters.

Examples of an already implemented portal site may be found at http://www.osti.gov/EnergyFiles/ or at http://www.tis.eh.doe.gov/portal/KSMLinkReg.htm both of which are DOE implementations. This site would contain only a limited number of active components and would remain relatively static with few manual updates. Adding this level of functionality will require few additional software components, but will require significantly greater development and maintenance expenditures than the previous alternative.

12.3.3 Significant Complexity

The focus of this alternative is to provide a fully-featured "vortal" (a subject specific portal or vertical portal) into the LSN. It is envisioned that it be the primary or, perhaps, sole way to access LSN information. This alternative will include the features outlined in section 12.3.2, enhanced to provide additional functionality such as:

- Seamless transitions among participant web sites.
- Caching and replication of participant documents for improved performance and access control.
- Mediated and/or prioritized access to LSN content through secure connection facilities (e.g., a virtual private network (VPN) that utilizes encryption to secure pathways).
- Levels of access (with some information available only to designated parties).
- Provision of additional media types, e.g., audio and video.

Development of such a site would require significant additional hardware, software, and personnel, both in development and maintenance. Manual revision would be frequent and occur through the entire system life-cycle. Additionally, this alternative requires that participants must be willing and active contributors to the site's development and maintenance by adjusting how their web sites work. This alternative might, however, be viewed as shifting the ultimate responsibility for document delivery from the participants to the LSNA.

These preliminary alternatives are to be considered by the LSN Advisory Review Panel (LSNARP) and its Technical Working Group (TWG) during meetings held on October 12-15, 1999.