



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

January 23, 1997

FROM: *for* Arnold Levin *Little*  
Licensing Support System Administrator

TO: LSS Advisory Review Panel

SUBJECT: LICENSING SUPPORT SYSTEM NETWORK DISCUSSIONS

By my transmittal dated November 14, 1996, we informed you of the availability of a computer-based communications program called "LSSNet," which is intended to maximize the interaction between the NRC, the LSS Advisory Review Panel, and the public on rulemaking issues related to the Licensing Support System.

LSSNet has been available for several months. It is used by participants in the LSS Advisory Review Panel discussions, many of whom have concluded that some features of the 10 CFR 2 Subpart J no longer provide optimal approaches to electronic information management. LSSNet has allowed the LSS Advisory Review Panel, other potential users of the LSS, and the public to communicate both with the NRC and among themselves on these issues.

Participation on LSSNet has been interesting but limited. The site (<http://lssnet.llnl.gov>) has been visited by over 90 different organizations in the U.S. and five foreign countries. Nevertheless, comments have been provided by only a few participants in previous LSS Advisory Review Panel discussions. This has made it difficult to define LSS rulemaking issues, to identify alternatives to address those issues, and to determine the extent of agreement on those alternatives.

We would like to provide everyone a final opportunity to comment on the LSSNET Phase I topics before we move on to Phase II. The concept of LSSNET is that we will proceed through a three-phase process, from a general discussion of the LSS rulemaking issues in Phase I to the consideration of draft rulemaking text in Phase III. In Phase II, based on the participant commentary during Phase I, the NRC staff will propose some specific solutions to the rulemaking issues for further participant comment and suggested alternatives. It is also anticipated that during Phase II we will conduct formal electronic voting by LSSNet participants on some of these issues. The Phase II discussions will then be further refined into proposals on actual rulemaking text for participant comment in Phase III. The ultimate goal is to fashion a draft

**proposed rule which will be submitted for Commission review and approval. The foundation for the draft proposed rule is being established by the Phase I discussions. Therefore, it is important for all participants to comment on these Phase I issues.**

**In order to encourage your participation, I have attached a copy of all comments received to date via LSSNet.**

**In addition to the hardcopy version of this letter, an electronic version will be sent via email to those who have participated on the LSS Advisory Panel for whom we have e-mail addresses.**

**For technical information, contact John C. Voglewede, U.S. Nuclear Regulatory Commission, Washington, DC 20555, telephone (301) 415-7415, E-mail [jcv@nrc.gov](mailto:jcv@nrc.gov)**

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LSSNet Postings  
10/31/96 - 01/20/97

Welcome!

LSS Rulemaking Issues

The Licensing Support System (LSS) concept grew out of the Nuclear Regulatory Commission's concern regarding how best to review the DOE license application for a high-level radioactive waste (HLW) repository. A centralized, electronic database, accessible by all parties appeared to offer the opportunity for significant time savings in conducting the licensing proceeding for the repository and, simultaneously, for the enhancement of any party's opportunity for effective participation. Plans for the LSS were first initiated in 1986 and were based on computer technology available in that time frame. It was intended to provide a central, shared, federally funded database of licensing information beginning in 1995. Budgetary shortfalls, however, and the unanticipated length of time that it would take to develop the licensing application for the repository, not only delayed the development of the LSS, but also resulted in the accumulation of a tremendous amount of potential licensing information, much of which may no longer be relevant to a licensing proceeding which may not begin until about 2002. In addition, since document capture may now involve much larger backlogs than originally contemplated, the risk of failing to capture all relevant material in the LSS is substantially larger than originally assumed. While the development of the LSS remained stalled, the state of technology in document automation and retrieval overtook the technology of 1986 on which the original LSS was to be based. With the widespread and common place use of computers to generate and maintain the documents of a party to the HLW licensing proceeding, the universal availability of the Internet to tie disparate and geographically dispersed systems together, and the availability of commercially available software applications relevant to LSS functionalities, the centralized LSS envisioned at the time the LSS rule was developed may be obsolete. Consequently, the Commission intends to evaluate how these new technologies can be integrated into the LSS rule while still maintaining the primary functions of the LSS:

1. A mechanism for the discovery of documents before the license application is filed;
2. Electronic transmission of filings by the parties during the proceeding;
3. Electronic transmission of orders and decisions related to the proceeding; and
4. Access to an electronic version of the docket.

It is the intent of the NRC staff to focus this rulemaking on how best to address changes in technology in regard to the LSS. There is no intent to re-visit the basic functionalities of the LSS that are reflected in the current 10 CFR Part 2, Subpart J.

To attempt to address these issues, the NRC is posting the following "topics" to guide the discussion during this phase of LSSNet. Other topics may be considered for discussion after review in the Administrative Forum.

Topic 1 - What are the costs and benefits of moving from a dedicated, centralized system to a distributed system based on the Internet?

Topic 2 - How should other improvements in computer technology be incorporated into the LSS?

Topic 3 - What provisions of the LSS rule will need to be changed to reflect the incorporation of new technologies?

Topic 4 - How should the backlog of "uncaptured", and possibly irrelevant, repository-related information be addressed?

Topic 5 - What would the role of the LSS Administrator be under a distributed system?

Topic 6 - How should advice from potential users of the LSS be provided for?

Topic 7 - Can DOE file an electronic application in hypertext?

LSSNET Caucus Area 1: What are the costs and benefits of moving from a dedicated, centralized system to a distributed system based on the Internet?

New Topic: costs and benefits  
From: Chip Cameron fxc@nrc.gov  
Date: 1/3/97 12:44 PST  
Thread ID: 1:1

Boy, it's lonely in this caucus! Maybe the absence of discussion on this issue signifies that most, if not all, of us are generally convinced that a distributed system is not only more efficient but also more effective. Therefore, the important issue is what are the implications of a distributed system for Subpart J. On to Topic 3!

Issue: costs and benefits  
From: Dan Graser djg2@nrc.gov  
Date: 1/9/97 7:38 PST  
Thread ID: 1:1.1

I think there are a number of issues related to costs that need to be addressed. In the "old" scenario, costs for design and implementation of a centralized system would have been absorbed under a DOE budget item. Costs for maintenance and operation would have been absorbed under an NRC budget item. In the "new" scenario, each party puts up its collection of documents on its own "external" document file server, and populates its' own machine with its' collection of documents. This represents a transference of costs from the government to the participants. Given the loss of oversight funding authorizations in the past couple of budget cycles, the implication is that the affected parties would have to find funding from their own resources.

There may be an opportunity for a consortium of affected parties to collaboratively fund a single location, thus cutting out some duplication of hardware expenditures, administrative costs, staffing, etc. There are internet value added vendors who could provide turnkey services of this type. Food for thought.

Qualify: costs and benefits  
From: Chip Cameron fxc@nrc.gov  
Date: 1/10/97 13:30 PST  
Thread ID: 1:1.1.1

This is a good point related to cost allocation resulting from a change from a centralized system to a distributed system. Are there any other cost allocation issues that we haven't identified yet that might flow from a change in the system?

Issue: costs and benefits  
From: Dan Graser djg2@nrc.gov  
Date: 1/9/97 7:45 PST  
Thread ID: 1:1.2

The cost models developed by the LSS Administrator staff for the costs for NRC's compliance assessment program will need to be re-done as the prior cost model is no longer valid.

If, indeed, we have some "black market" LSSNet functionalities already starting to sprout up. Systems are already being fielded without any agreement on the tagging

and presentation of structured data and as each day passes, we also have data that is populating this system for which we do not know if the data is true and accurate, no audit trail from its origination source, etc.

The bottom line is that the compliance assessment program even if only for doing a quality check on somebody else's "self-certification" is going to have to be revised very quickly and put in place very quickly. The LSSNet is already happening. The cost issue here is that the Commission has no FY 97 budget for doing this work...

Agree: costs and benefits  
 From: Chip Cameron fxc@nrc.gov  
 Date: 1/10/97 13:22 PST  
 Thread ID: 1:1.2.1

This also seems to be an excellent point for Topic Area 5 on the role of the LSS Administrator under a distributed system. How quickly do we need to move on a new compliance assessment program?

LSSNET Caucus Area 2: How should other improvements in computer technology be incorporated into the LSS?

New: References to Computer Technology Should Not Be in the Rule  
 From: Bill Olmstead wjo@nrc.gov  
 Date: 11/14/96 11:21 PST  
 Thread ID: 2:1

I don't see why it is necessary for references to computer technology to be in the procedural rules. Under the recent amendments to the Paperwork Reduction Act, the agency is going to have to provide standards for electronic filing. These will be applicable to all NRC processes. These will be the same standards that should apply to the adjudication associated with the repository.

Qualify: References to Computer Technology Should Not Be in the Rule  
 From: Brad Mettam bmettam@telis.org  
 Date: 11/14/96 15:51 PST  
 Thread ID: 2:1.1

Avoiding the discussion of specific computer technology makes sense.

That was what was tried in the negotiated rulemaking, when the emphasis was on making it "platform independent". The problem was, nobody ever built the LSS, so that it could evolve with the technology. We need to retain the key

\*concepts\*, while exercising a prototype that can evolve into what we need.

New: Can we use WEB technology to create a "smart" License Application?

From: Claudia Newbury Claudia\_Newbury@Notes.YMP.gov

Date: 11/20/96 17:10 PST

Thread ID: 2:2

What IF, the License Application and the LSS were actually one thing? IF the SAR were generated in hypertext with connections to all the references (and documents considered but not used were cited) would that do more to speed the review process than the current LSS concept? Are we then talking about an electronic sub-part G? What do you think?

Qualify: Can we use WEB technology to create a

From: Bill Olmstead wjo@nrc.gov

Date: 11/21/96 7:51 PST

Thread ID: 2:2.1

I like the idea of a hyperlinked application document particularly if the document goes beyond HTML extensions (say SGML) so that the data elements can be used and document integrity is more likely. Clearly, this approach could be used to satisfy DOE's obligation to certify those things that it wished to rely upon. There remains, however, at least two large classifications of documents that were to have been in the LSS -- 1) DOE documents that could be relevant to any given party's issues in the proceeding but which DOE does not choose to defend or rely upon; and 2) documents belonging to other parties that they may or may not intend to rely upon but which are relevant to issues in the proceeding.

It is not my position that these two classifications should be identified now nor that they should necessarily be converted to an electronic form. If they are not, however, we need to discuss how to handle them. One obvious way is to eliminate all references to the LSS as an automated or electronic database and handle electronic conversion, storage, and retrieval in whatever manner is routinely provided in Subpart G at the time of the DOE application in the future.

Alternative: Can we use WEB technology to create a

From: Dan Graser djg2@nrc.gov

Date: 11/21/96 8:55 PST

Thread ID: 2:2.2

Why limit this to an electronic license application? If the LSS database contains any document that any party intends to

submit in an evidentiary capacity, and any deposition, and then the electronic hearing docket contains daily transcripts of the hearings, the logical extension is to have the LSS be utilized beyond just the submission of an electronic license application. The hyperlinking that identifies your license application is "the LA thread", and there could be similar threads for "motions", "decisions", "proposed exhibits", "accepted exhibits", "hearing transcripts", etc. The phases after license submission continue to build upon the file collections and move from potential evidentiary, to the submitted application, right on through to the hearing phases.

The stringent criteria for document pedigrees and authentication for the submission of potentially relevant evidentiary materials into the LSS in the first place should be an adequate foundation for meeting other federal evidence and practice (or the NRC specific variant, if any) rules requirements later on in the hearing and post-hearing processes. Indeed, the rule always anticipated an electronic hearing docket, anyhow.

Having said all that, the first question is how are we going to submit "the record" which is organized and structured by such electronic hyperlinks, to the NARA for retention and maintain or replicate the organization of information? The second question is who will be responsible for setting the electronic hyperlinking across domains? (e.g., DOE wants to set a hyperlink to an item that is sitting on the NRC machine...)

Answer: Can we use WEB technology to create a  
From: Claudia Newbury Claudia\_Newbury@Notes.YMP.gov  
Date: 12/9/96 15:58 PST  
Thread ID: 2:2.2.1

I'm not sure we're talking about the same thing, but let me try this.

What I am thinking about is that in writing the License Application, the authors would include in their discussion all potential references to a particular topic (like we didn't do in the erosion topical). Not just the references that support the arguement, but also any references that were considered and not used and the reason why. The citations in text would be linked to the bibliography (to provide a clear delineation between the LA and the supporting information) and the bibliography could then be linked to the optical images and ascii text that we are generating as a part of records reprocessing. If the DOE uses a document generated by the State or the NRC, we could either include the document in our database (redundancy is

not that big a deal is it?) or somehow set the links to the document in its "home" location". We could also link to databases like GENISES to allow use of the technical data, to videos (say of the core that was scanned as it came out of the drill hole), to oversize or color pictures, to 3-D models, etc. Does NARA accept optical disk? The hyperlinks wouldn't go anywhere, but then neither do citations on a piece of paper.

That would still leave a subset of information that could conceivably be of value in licensing, but that could be accessed through a text search function as originally envisioned for LSS.

Agree: Can we use WEB technology to create a  
 From: Bill Olmstead wjo@nrc.gov  
 Date: 12/11/96 10:51 PST  
 Thread ID: 2:2.2.1.1

I need both an "agree" and an "answer" icon for this. First, I like your suggested approach (subject, of course, to the assumption that the costs of putting the application together as you describe are appropriate). Second, the NARA achival issue is still unresolved. For archival purposes beyond 10 years, we must still provide the archive copy on acid-free paper or diazo(sp?) micro-fiche. Should we plan on this continuing to be the situation for the next three to five years or should we confidently predict that the march of technology will make it necessary for NARA to prescribe a more technologically friendly strategy?

Disagree: Can we use WEB technology to create a  
 From: Dan Graser djg2@nrc.gov  
 Date: 1/9/97 7:21 PST  
 Thread ID: 2:2.2.1.1.1

Bill: I don't think the NARA archival issue is an open question any longer. NARA Bulletin 94-4 states that "The CD-ROM medium is acceptable for the transfer of electronic records to the National Archives under the conditions that are specified in paragraph 4 of this bulletin."

Bulletin 94-5 addresses the use of optical disks for storing records within the agency prior to transfer to NARA.

[Public Area] New: Specific Technology used will shape the message  
 From: Donald Coates DCoates@efaches.navfac.navy.mil  
 Date: 12/23/96 7:23 PST  
 Thread ID: 2:1

Thirty years ago McLuhan said "The medium is the message."

To avoid references to specific technology is to presuppose the information ("message") will not be influenced by the technology used to present it.

A manually prepared columnar pad & pencil presentation of financial data is significantly different from an Lotus, Quattro or Excel presentation of the same data. The latter is likely to include graphics, extended details, calculations and visual emphasis the pre PC technology seldom used because the labor required was more costly than what the additional details were worth.

The real question about the inclusion of specific technology standards is "So What??. To the extent we must all speak the same language or adequate provision for competent translation, we of necessity must specify a generic technology base and standards for technology translation.

[Public Area] New: The hyperlinks wouldn't go anywhere  
 From: Donald Coates DCoates@efaches.navfac.navy.mil  
 Date: 12/23/96 7:55 PST  
 Thread ID: 2:2

It would sure be easier if public commentators could reference threads in the "password protected" forum. Not post there, just reference threads there.

The Graser, Newbury, Olmstead thread is an interesting discussion. I was pleased that Bill Olmstead was concerned with cost effectiveness. Just because modern technology allows us to put the dictionary in the record doesn't mean we should do it. There needs to be a very clear focus on the really "relevant" information needed and what is truly "support" data to be referenced and not included. The tendency to include too much data when using the new technologies "fuzzes" the issues for the decision makers.

[Public Area] Agree: The hyperlinks wouldn't go anywhere  
 From: Bill Olmstead wjo@nrc.gov  
 Date: 1/2/97, 8:27 PST  
 Thread ID: 2:2.1

I agree that we need to do a better job concerning linking "threads" as well as "topics" between the password protected "forum" and the public comment area. I will ask the knowledgeable people about that. Since you mentioned costs, however, I should explain that we are using the perl scripts that were developed in the "RuleNet" demo last year with no significant money to change the fundamental tools already developed, so I wouldn't want to say that we can absolutely do it.

LSSNET Caucus Area 3: What provisions of the LSS rule will need to be changed to reflect the incorporation of new technologies?

New: Use Subpart G  
 From: Bill Olmstead wjo@nrc.gov  
 Date: 11/14/96 10:53 PST  
 Thread ID: 3:2

Given the fact that no Licensing Support System has yet been developed and that the use of electronic technology is being rapidly assimilated into general trial practice, it seems to me that we ought to discuss whether it is necessary to focus on the technology at all. Perhaps, we should recommend just following standard adjudicatory practice as it exists at the time of the DOE application and focus instead on whether access to documents can be granted at some earlier time.

Qualify: Use Subpart G  
 From: Chip Cameron fxc@nrc.gov  
 Date: 11/19/96 6:17 PST  
 Thread ID: 3:2.1

I'm assuming that when Bill suggests going back to Subpart G that this would not exclude the continued development of electronic information management systems containing pertinent licensing information on the repository, including the development of a distributed internet system comprised of information from all of the potential parties' data bases. Under this scenario, the primary difference between a Subpart G framework and a Subpart J framework would be the legal requirement for potential parties to contribute information of a certain type in a particular timeframe. Query what the practical consequences of a return to Subpart G would have on the electronic availability of useful licensing information from a broad spectrum of parties before the license application was filed.

New: Some provisions to look at: the short list  
 From: Dan Graser djg2@nrc.gov  
 Date: 1/9/97 7:52 PST  
 Thread ID: 3:3

The "old" rule locks a record down. If there are changes or updates, a new record gets added and references the superseded-but-not-deleted previous record. How are we going to validate a record having been locked down? How are we going to ensure the the superseded version is not deleted from a machine that is not under the LSSA's control.

PDR access was written into the old rule. Is it cost effective to continue to provide that sort of access (for the "non-wired") when 10 to 20 million of the public would

have access via the internet? Not that the PDR access is such a big deal to put a terminal there, it is just a question if the rule needs to specifically call that out anymore. The "old" rule requires that the LSS shall maintain an electronic docket. In the "new" rule, we are maintaining a virtual docket electronically.

How would an internet user access "one-of-a-kind" things? Probably a pointer to a point-of-contact person.

In the "old" rule, there was provision that users could request paper copies of search results, and that would have been provided by the LSS Administrator. In the virtual LSSNet, there is no single one place to request this from since holdings may be on 20 different home pages. And if a request for hard copy went to, say, Clark Co. for hardcopies of some of their studies, there is a cost associated with meeting that request. Who pays? In the "old" LSS, that cost and that service was provided by the LSSA under NRC budget.

Supplement: Some provisions to look at: the short list  
 From: Chip Cameron fxc@nrc.gov  
 Date: 1/10/97 13:38 PST  
 Thread ID: 3:3.1

See Dan's comments in Caucus Area 1 for some additional cost allocation issues that need to be considered.

LSSNET Caucus Area 4: How should the backlog of "uncaptured", and possibly irrelevant, repository-related information be addressed?

New: universe of LSS material  
 From: Chip Cameron fxc@nrc.gov  
 Date: 11/19/96 6:41 PST  
 Thread ID: 4:2

I believe that one of the most difficult issues for the successful development of the LSS, both from a logistical and cost viewpoint, has been the definition of the document universe for inclusion in the data base. Essentially, other than the "relevance" criterion, the document universe is pretty open-ended. Originally, the negotiating committee had discussed limiting the document universe to relevant material generated during a particular timeframe (e.g., onward from the NWPA enactment date of 1982). This concept was not adopted by the negotiating committee. However, given the long delay in both the submission of the repository license application and in the development of the LSS, wouldn't it make sense to establish some new criteria for the document universe? In addition to looking at some type of "time" criterion, aren't there some issues that are no

longer even relevant that could be excluded from the data base? I would also note that even under Bill Olmstead's suggestion in Caucus Area 3 (a return to Subpart G), we could still benefit from the development of electronic information management systems for repository licensing. I believe that developing a more finely tuned document universe would also be relevant to these "non Subpart 2" systems.

Supplement: universe of LSS material  
 From: Claudia Newbury Claudia\_Newbury@Notes.YMP.gov  
 Date: 11/20/96 14:17 PST  
 Thread ID: 4:2.1

There are really two sets of information that need to be considered as to their relevance. The first set are all those documents that the DOE considers and uses (or decides not to use) in developing our licensing arguments. They are easy to identify and load into the LSS as we develop the SAR and LA. The other set is all that other old stuff that might or might not be useful. I agree that there should be some time limit on that - (hypothetical) e.g. is it really relevant that in 1975 DOE thought that a cold repository was a good idea? Would DOE have to show that its current design considered that old an idea?

DOE will begin reprocessing its records in March, as we go through and scan/OCR those records, it would be good to know if there are some that don't need to be reprocessed because they are no longer considered relevant. Or, if they are only marginally potentially relevant (like data from BWIPP or the Salt program, can we just keep them as hard copy and generate headers only?

Agree: universe of LSS material  
 From: Chip Cameron fxc@nrc.gov  
 Date: 11/21/96 6:26 PST  
 Thread ID: 4:2.1.1

Good points, Claudia. I agree in principle that we should really be focussing on the most important and basic licensing material. It's also important to remember Bill Olmstead's message about the ability to document major decisions in the DOE and NRC program. However, some of these decisions may also no longer be relevant to the current program. The challenge is on how to weed this material out. Can anybody suggest a methodology to accomplish this? Can we agree on what the "basic" licensing documents are that should be in the system? I would hope that we could reach

closure on this issue before you expend funds unnecessarily on capturing extraneous material. Is there anybody out there who is absolutely opposed to attempting to streamline the document universe requirements?

Supplement: universe of LSS material  
From: Brad Mettam bmettam@stelis.org  
Date: 11/22/96 8:43 PST  
Thread ID: 4:2.1.1.1

I am not opposed to the filtering of documents, with the goal of retaining those that either relate to key DOE decisions, or are used by DOE to support a decision. The key is to have an understanding and agreement as to which documents those are.

I have long argued that DOE should be capturing documents in electronic form, for two reasons: 1) If you create a document electronically, it only makes sense to avoid the potentially error-introducing process of moving from media to media and back again, and; 2) I dread the possibility of receiving a huge slug of scanned documents when DOE is finally ready. The problem gets worse if you decide to use the Internet as a conduit for these documents. Sitting out here in California with my 14.4 modem, I'm going to get old(er) and gray(er) before I download and sort through documents sent as scanned images. When we lose the LSS in its original form, we also lose the platforms that were intended to host it at the different access points. This may be another case of introducing a technology constraint, only to watch it fade away as time passes, but it is a concern when documents are images, rather than text.

So, reduce the total volume - but do it by requiring DOE to record the technical and policy documents that led to key decisions. For example, is it important to understand why DOE decided to focus on TBM break-out, at the expense of surface-based and underground scientific investigations? If so, you need to capture the exchange between Wesley Barnes and the NWTRB, at the NWTRB meeting where Mr. Barnes was advised to seriously consider the likelihood that Congress considered TBM advance to be the measure of progress at the site. Until that time, the plan had been to interrupt, or even stop, TBM advance prior to break-out. DO DOE's memoranda of decision record all the key precedents to a decision? If so, great. If not, then this debate will continue.

Agree: universe of LSS material  
From: Bill Olmstead wjo@nrc.gov  
Date: 11/22/96 11:43 PST  
Thread ID: 4:2.1.1.1.1

I agree that we need fast text search engines and don't want to be sending images around the internet at current speeds. (I note, however, that at the speed the technology is changing we will have two generations of improvements before the license application.) I also agree that it should be possible to start focusing on the key documents that everyone agrees should be on-line and accessible. Since the backlog that wasn't supposed to happen is with us, I think we should also discuss how to give interested persons access to that material so that they can begin to identify what they would like added rather than assuming that it all will be added and some undefined future date.

Qualify: universe of LSS material  
From: Chip Cameron fxc@nrc.gov  
Date: 1/3/97 13:04 PST  
Thread ID: 4:2.1.1.1.2

Great idea, Brad - it's what Bill Olmstead has been trying to drum into our heads all along! However, how feasible is it to do this in retrospect at this point? How would we set up the format to guide this documentation process, either for the past or the future? Would it be organized by the section of part 60, for example? Does DOE have an issues hierarchy that can be used?

Supplement: universe of LSS material  
From: Dan Graser djg2@nrc.gov  
Date: 1/9/97 8:06 PST  
Thread ID: 4:2.2

Relevance is in the eye of the beholder (personal opinion).

More germane is that the LSS is a discovery tool. We know our filing structures, document formatting, abbreviations, acronyms, etc., quite well but our "organization and presentation" may not be intuitive to others just as theirs are potentially not intuitive to us. The great equalizer for finding the needle in the haystack during discovery is to use full text search engines with all their power. I think that the focus on trying to narrow down the collection is good because it means that there is a smaller haystack. But, it is the other person's opinion of what should be in the haystack that has always been problematic, because they really don't know what should be included by another party unless they have somehow pre-screened it first. I guess I'm

trying to say that I don't understand how someone could use date-based or document-based screening criteria (the easiest to apply for narrowing the content) when it is the issues that define relevancy, and issues don't fall nicely into or out of a screening (or discovery) process that makes the cuts based on objective criteria.

And, I don't see how we can determine what might or might not be useful for DOE to convert in their backlog processing without first having the other parties screen it by their criteria for relevancy.

There seem two obvious solutions but perhaps there are more: 1) enter them all in full text and let the users search criteria be the ultimate arbiter of what meets relevancy (this is, however, costly for conversion...) or 2) have potential parties participate in prescreening the DOE backlog and flag the documents they want to have put in. Alternative #1 above does address the issue of the "relevancy in the eye of the beholder" syndrome. Text retrieval levels the playing field regarding making content "knowable": I believe that header-only for the possibly "marginally relevant" just isn't going to provide similar leveling. Alternative #2 is a viable option because I have seen it work on the consolidated discovery and filming operations that were used in the asbestos litigations when going thru Navy Record Groups at Suiteland. Put the boxes out on the floor, Manville goes thru them and flags the docs they want, then Eagle-Picher goes thru and adds a few more flags to what Manville did, then the next, and the next, etc. In the end, all the flagged docs were filmed and 10 sets of film were made so that everybody got what everybody flagged. No unhappy customers. Again, just food for thought.

Qualify: universe of LSS material  
From: John Greeves JTGl@nrc.gov  
Date: 1/13/97 11:18 PST  
Thread ID: 4:2.2.1

In reading the comments so far it is obvious to me that we should start a list of documents that should be in the LSS and let others add to the list over time. The list should include the Viability Assessment, NRC's annual progress reports, the Standard Review Plan when we get resources to produce one, and any specific issue resolution reports produced over time. Putting in old design documents that are outdated are a waste of time and resources in my view. Documenting major DOE decisions is important, if we could get people to identify what they consider major decisions that would help. Too much information will dilute all of our efforts.

LSSNET Caucus Area 5: What would the role of the LSS Administrator be under a distributed system?

New: No LSS Administrator a Possibility  
From: Bill Olmstead wjo@nrc.gov  
Date: 11/14/96 11:03 PST  
Thread ID: 5:2

Unstated by implied by this topic is the question, "Do we continue to need an LSS Administrator if there is not to be a central computer to administer?"

Agree: No LSS Administrator a Possibility  
From: Chip Cameron fxc@nrc.gov  
Date: 11/21/96 6:18 PST  
Thread ID: 5:2.1

I agree with the implied question. To start the discussion off, I would ask why we wouldn't need some entity - and wouldn't the LSS Administrator be the most appropriate entity- to ensure that the relevant material was identified and placed on the party's node on the distributed system. However, I suppose an alternative would be to simply require certification by each party that they have procedures in place to identify the material and that they have placed the requisite material on the system. If people were comfortable with this approach, it seems fairly low cost and simple.

Qualify: No LSS Administrator a Possibility  
From: Claudia Newbury Claudia\_Newbury@Notes.YMP.gov  
Date: 11/21/96 14:55 PST  
Thread ID: 5:2.1.1

Perhaps there would not be a requirement for the LSS Administrator as defined in subpart J, but certainly there should be one person we can all complain to when the network is slow or someone's machine is down. It will be necessary (if this is on the Web) to establish priority users, bumping privileges, so to speak, control passwords, etc.

Alternative: No LSS Administrator a Possibility  
From: Bill Olmstead wjo@nrc.gov  
Date: 11/22/96 11:51 PST  
Thread ID: 5:2.1.1.1

Or alternatively, each participant would be responsible for either providing adequate access to that participant's material and the rule would required the designation of a contact within the participant organization when problems arose. The ASLEP would hear disputes and determine whether to fashion some solution. It is my assumption that the

society in which we all operate will be somewhat more accustomed to interactive electronic socialization and the problems that we originally contemplated to necessitate an administrator will be minimal.

Supplement: No LSS Administrator a Possibility  
 From: Moe Levin aell@nrc.gov  
 Date: 11/26/96 9:45 PST  
 Thread ID: 5:2.1.1.1.1

I agree that the problems originally envisioned for the LSSA to deal with will diminish over time as people become more accustomed to the Internet. However, if the LSS concept survives, no matter what form it takes, there has to be some focal point for it. There will always be a need for coordination, standards setting, policy making, responding to questions, etc. Someone has to be designated to worry about those things. To me, this is a given.

What needs to be decided is to what extent the LSSA would police vs. coordinate the activities of a distributed, Internet-based LSS.

Agree: No LSS Administrator a Possibility  
 From: Brad Mettam bmettam@telis.org  
 Date: 12/3/96 16:08 PST  
 Thread ID: 5:2.1.1.1.1.1

I'm glad that Moe moved the discussion away from consideration of the LSSA as some sort of webmaster moderator, and to a consideration of the broader policy concerns that arise, and will continue to arise, in the LSS. Remember, the outside world considers the NRC as a regulatory watchdog over the applicants. I doubt that many will be comfortable self-certification by submitters to the LSS that all relevant documents are there, especially in the case of DOE, where the volume of documents will make looking for a needle in a haystack an easy job, and where the level of trust (and confidence) is not the highest.

Speaking of the outside world, where are the rest of the LSSARP members? Perhaps someone could mail them the content of the threads to date, and urge their participation.

Agree: No LSS Administrator a Possibility  
 From: Chip Cameron fxc@nrc.gov  
 Date: 1/3/97 13:12 PST  
 Thread ID: 5:2.1.1.1.1.1.1

Brad - you're right, we need to contact everyone by email and urge their participation. Also see my 1/3/97 response to Claudia's message.

Answer: No LSS Administrator a Possibility  
 From: Dan Graser djg2@nrc.gov  
 Date: 1/9/97 8:28 PST  
 Thread ID: 5:2.1.1.2

I think the answer to "who do I call when the response is slow" is: nobody. If the NRC collection is not accessible, I can resolve that for you. If connectivity fails, I can't help you there at all. If machine search response time is slow, I could re-host you, but that could take months. If, for example a resident of Nevada, or even the President of the U.S., called the LSSA and complained about difficulty or slowness in getting into the DOE collection on one of your VAXes, the LSSA Admin. has no capability to "fix it ASAP" because it is DOE data, on a DOE machine, operated by DOE contractors, and none of that is amenable to taking direction from the LSSA.

There is an extra layer of vulnerability, here. The above scenario could be technical, but it could also be fiscal. What if DOE has a budget shortfall in August and September and even if you wanted to, you couldn't fix a problem until after October 1?

While I agree with Brad and Moe's later comments that the discussion needs to look at the policy concerns, I see the potential for "the webmaster moderator" issue being very important, especially as the use of the system during the hearing approaches. There could be great levels of frustration if there is nobody to call.

New: How can we generate more participation?  
 From: Moe Levin aell@nrc.gov  
 Date: 12/4/96 11:25 PST  
 Thread ID: 5:3

Following up on Brad's comment about lack of participation of the other members, what can we do to encourage/excite/motivate others to participate? If we continue at the current level of (non)activity, does that mean no one is interested in (or maybe financial capable of) worrying about the future of the LSS? If so, does this leave it up to NRC to make decisions without input/concensus from others?

Question: How can we generate more participation?  
 From: Bill Olmstead wjo@nrc.gov  
 Date: 12/9/96 6:57 PST  
 Thread ID: 5:3.1

Since the statistics (from the home page for LSSNet) indicate a fairly substantial number of observers (lurkers)

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and many who have web addresses indicating a LSS connection, I would not necessarily assume that there is a lack of participation. Another interpretation is that there is substantial agreement that something needs to be done by the NRC to update/change the LSS concept. If so, people may merely be waiting for us to propose something more specific. I will be prepared to do just that after the first of the year. In the meantime, I would be interested in any ideas (brainstorming) that observers may have concerning what changes should be made. For example, I believe we can eliminate Subpart J from 10 CFR Part 2 and add the information concerning the topical guidelines to Subpart A. We could change Subpart G to provide for electronic service of adjudicatory documents. The only significant issue traditionally occupying the LSS Advisory Committee that would then be left would relate to whether there are LSS administrator functions that could not be preformed by a prehearing ASLBP. There would also be an issue associated with pre-application access to documents that should be addressed.

Supplement: How can we generate more participation?  
 From: Claudia Newbury Claudia\_Newbury@Notes.YMP.gov  
 Date: 12/9/96 15:34 PST  
 Thread ID: 5:3.1.1

Brad voiced a concern that I, too, have been wrestling with. This does not seem to be a true forum for all the LSSARP participants. I don't know whether they are "lurking" and listening to the things that are being written, or perhaps are uncomfortable with the format. I know that I end up writing and erasing numerous messages before I actually post anything. Also, there may be some reluctance to commit comments or suggestions to virtual paper. Perhaps we need one more face-to-face LSSARP to scope out the reactions to this medium. Bill mentioned that stats show some viewing by LSSARP types. What percentage of members have actually logged on?

To Bill's other point, [Ed: See Topic 7 ] In looking around the Net, I find that the state of Nevada has a listing of all its published documents (thanks, it looks good!) and DOE has RISWeb up, so there is a listing of all our documents, SWRI has a listing as well, so that covers part of the NRC holdings. I guess the point is, the LSS participants are providing access to documents now, without an LSS. Do we need the prescriptiveness of a regulation? Is there something mandated in subpart J that is not being or would not be done if we just used subpart G? If we use G, can I file the LA in hypertext?

Supplement: How can we generate more participation?  
From: Chip Cameron fxc@nrc.gov  
Date: 1/3/97 7:04 PST  
Thread ID: 5:3.1.1.2

Claudia raises two important points in her message: 1) how to encourage more active participation of the LSSARP, and potential users generally, in LSSNET?; and 2) in light of the fact that the various potential parties are setting up electronic document sites, do we still need a prescriptive Subpart J type rule? Although I believe it may be more appropriate to address the first issue (participation) in Caucus Area 6 (potential users), I'll include my comments on both of the above issues in this message.

In regard to the need for a prescriptive regulation issue, the establishment of the individual electronic sites certainly presents a strong argument in favor of the distributed system suggested in Topics 1 and 2. However, whether this eliminates the need for a prescriptive regulation depends on additional factors. One of the primary objectives of the LSS was to eliminate the need for time-consuming document production after the license application was submitted. The "quid pro quo" for the parties "giving up" this traditional discovery opportunity was that all the "relevant" documents would be available in the LSS before the license application was submitted. This, in turn, necessitated the development of rules to ensure that the potential parties identified and provided access to all relevant materials in the period before the application was submitted. The fact that some of the potential parties (albeit the ones with the most documents) are establishing electronic document sites, or that we may have a distributed rather than a centralized system, is not dispositive on the continued need for Subpart J. We need to examine the original premise of eliminating document discovery after the license application was submitted. Is it still necessary to do this from a time and cost perspective? Is it good enough to have most of the relevant documents available before hand, necessitating only "supplementary" discovery under subpart G for documents that may not be in the various individual nodes? If we're not worried about all of the relevant documents of all of the potential parties being available before the license application is submitted, then perhaps we don't need Subpart J. We also need to ask whether there are other elements of Subpart J that are still needed, for example, the electronic motions practice. In this regard, there may be potential rule changes on the horizon that would provide for this capability generally for NRC proceedings, thereby eliminating the need to provide for it in Subpart J.

In regard to participation, I have heard informally that we will be hearing from some of those LSSARP members that haven't participated yet. Some LSSARP members are straightening out some internal technical problems that have posed obstacles to their participation. Others have not participated because of funding problems. We'll soon be getting ready to move into Phase II of LSSNET where the NRC staff will take the comments on the first set of topics and develop a more refined set of issues on which we will request alternative solutions from the participants. I think the NRC should send out a notice to the individual email addresses of the participants notifying them that Phase II is coming and that they have so many days to post comments on the Phase I topics. I would agree with Claudia that a face-to-face meeting may be a good idea but I'm uncertain right now as to when this may be appropriate. This may become clearer as we move through LSSNET.

Supplement: How can we generate more participation?  
 From: Moe Levin aell@nrc.gov  
 Date: 12/12/96 8:57 PST  
 Thread ID: 5:3.1.2

Before our last face-to-face LSSARP meeting I was also concerned about how well the panel would take to cyber meetings/discussions. That's why I made a point of bringing it up then. No one reacted negatively to the suggestion then, and, even though everyone responded the email messages I sent after the meeting, I didn't receive one negative comment on plans for an LSSNet. We could consider another face-to-face meeting.

Hey, if anyone is still lurking out there, how about posting your thoughts on this. Are we lost-in-cyberspace? Is a face-to-face meeting desireable/feasible?

Qualify: How can we generate more participation?  
 From: Brad Mettam bmettam@telis.org  
 Date: 12/16/96 11:39 PST  
 Thread ID: 5:3.1.2.1

Several people have commented regarding the assertion that "lurkers" are out there from the LSSARP. Could we see the stats on that? I continue to hope that time-delayed "cyber-meetings" like this can serve to perform much of the detail work for the LSSARP. Certainly that hasn't been the case yet. There must be easier ways for NRC and DOE people to talk to each other, if that's what this is going to become.

I have two suggestions. First, we need to get the various active Threads formatted on paper, and sent to the silent LSSARP members. Included with that should be a memorandum from Moe, describing (again) what we are trying to do here, with a strong suggestion that LSSARP members respond, either positively or negatively, to both the concept and practice of the LSSNET. Second, we need to come to some decision concerning the use of the material gathered in this forum. Can we say with some assurance that not participating in the forum has the same effect as not participating in the discussion at an LSSARP meeting? (I do not consider this forum equivalent to the meeting, but I do consider it roughly equivalent to discussion at the meeting.)

If this forum is the equivalent of discussion at an LSSARP meeting, do we have members who are unable to participate? If so, we need an electronic version of ADA, where provisions are made to get information to, and receive postings from, those without electronic access.

Issue: How can we generate more participation?  
 From: Bill Olmstead wjo@nrc.gov  
 Date: 12/20/96 5:29 PST  
 Thread ID: 5:3.2

Brad has suggested sending the threads posted so far to LSSARP members with a request to comment on the participation issue. I think that is a good idea. With respect to the issue concerning whether members have the capability to communicate electronically, however, I reject the implication that members are unable to do this. First, we verified everyone's capability at the outset. Second, the whole idea of the LSS from the outset was the use of enhanced computer technology. If electronic storage and communication is to be effective in improving the HLW proceeding, we must start learning how to use the technology effectively from the desktop.

Alternative: How can we generate more participation?  
 From: Brad Mettam bmettam@telis.org  
 Date: 12/20/96 8:31 PST  
 Thread ID: 5:3.2.1

I may not have completely explained my concern regarding the use of an electronic forum versus traditional meetings to elicit the views of the members of the LSSARP. I think we have made a leap when we assume that a participant that was prepared to use an LSS to provide access to electronic copies of documents is therefore prepared to participate in a time delay electronic conference.

I am not refering to a problem with equipment, but rather a dificulty in participating in the medium. How many of us know (or are) people who compose their correspondence on a yellow pad of paper? A medium where you put everything in writing, yet is intended to be nearly as free- flowing as a conversation, may make some participants tremendously uncomfortable (perhaps especially so for attorneys).

My point in suggesting a mailing to all LSSARP members was to try to elicit a reaction. Why aren't they participating? What might be done to make it better/easier? Do they have (legal, etc.) reservations about participating in a forum like this? Or are we just talking about items they are not interested in?

Agree: How can we generate more participation?  
 From: Moe Levin aell@nrc.gov  
 Date: 12/26/96 13:10 PST  
 Thread ID: 5:3.2.1.1

I agree with Brad and think his suggestion has merit. I will look into the feasibility and logistics of generating hardcopy threads for regular mail distribution. I will also see if the statistics on LSSNet hits can give us any clues. If some of our members haven't even visited LSSNet, maybe they will after seeing what has transpired to date.

Qualify: How can we generate more participation?  
 From: Chip Cameron fxc@nrc.gov  
 Date: 1/3/97 13:17 PST  
 Thread ID: 5:3.3

Moe - There have been several suggestions for encouraging participation (see my 1/03/97 reply to Claudia). Hopefully, we'll get some more action here as we move towards Phase II. However, ultimately, we'll have to rely on what we get from whomever participates and use our best judgement in making decisions.

[Public] New: LSS Administrator  
 From: Abe van Luik abe\_vanluik@notes.ymp.gov  
 Date: 11/26/96 15:52 PST  
 Thread ID: 5:2

Just looking at the discussion on this topic, and having had some experience with online services and the Internet, it is my opinion that unless you have an administrative structure, with a head, you will run into currently unanticipated problems without the ability to respond effectively and quickly. Someone has to own and maintain it, in other words.  
 --abe--

[Public] Agree: LSS Administrator  
 From: Bill Olmstead wjo@nrc.gov  
 Date: 12/9/96 7:08 PST  
 Thread ID: 5:2.1

I agree with your observation. The question that I want to focus attention on is whether this is best performed by each provider (Participant) subject to the supervision of the Licensing Board in the event of disputes among and between the participants or whether all participants web sites should be subject to a single technical "LSS Administrator" who defines the rules/standards/etc. The LSS Administrator was a practical necessity when the LSS was envisioned as a large mainframe centrally located computer to which dial in access was provided. The distributed nature of the internet makes other models not only more practical but more desirable.

LSSNET Caucus Area 6: How should advice from potential users of the LSS be provided for?

New: advice from potential users  
 From: Chip Cameron fxc@nrc.gov  
 Date: 1/3/97 13:45 PST  
 Thread ID: 6:2

It seems like much of the material posted in Caucus area 5 on "participation" is also relevant here. The issue of how best to obtain advice from potential users is dependent on what ultimately comes out of the larger exercise on the fate of the LSS. If all we end up doing is incorporating the distributed system concept into the rule, then I don't see any reason not to maintain the LSSARP as the vehicle for obtaining advice (the "mix" between virtual and face-to-face discussions will remain an issue, however). However, if we go to a more informal document access system and fall back on Subpart G, will we still need to maintain a formal advisory panel? Should the panel be reconstituted to address the larger issues of the use of electronic technology in NRC proceedings generally?

LSSNET Caucus Area 7: Can DOE file an electronic application in hypertext?

New: How can we generate more participation?  
 From: Claudia Newbury Claudia\_Newbury@Notes.YMP.gov  
 Date: 12/9/96 15:34 PST  
 Thread ID: 7:1

Brad voiced a concern that I, too, have been wrestling with. This does not seem to be a true forum for all the LSSARP participants. I don't know whether they are "lurking" and

listening to the things that are being written, or perhaps are uncomfortable with the format. I know that I end up writing and erasing numerous messages before I actually post anything. Also, there may be some reluctance to commit comments or suggestions to virtual paper. Perhaps we need one more face-to-face LSSARP to scope out the reactions to this medium. Bill mentioned that stats show some viewing by LSSARP types. What percentage of members have actually logged on? [Ed: See Topic 5 for a continuation of this thread]

To Bill's other point, In looking around the Net, I find that the state of Nevada has a listing of all its published documents (thanks, it looks good!) and DOE has RISWeb up, so there is a listing of all our documents, SWRI has a listing as well, so that covers part of the NRC holdings. I guess the point is, the LSS participants are providing access to documents now, without an LSS. Do we need the prescriptiveness of a regulation? Is there something mandated in subpart J that is not being or would not be done if we just used subpart G? If we use G, can I file the LA in hypertext?

Answer: How can we generate more participation?  
 From: Bill Olmstead wjo@nrc.gov  
 Date: 12/11/96 11:02 PST  
 Thread ID: 7:1.1

Remember that the penalty provided when the LSS Administrator fails to certify is to proceed under Subpart G. It is our intent to revise Subpart G to recognize electronic filings. At that time you should be able to file the LA in the way that you visualize subject to whatever digital signature standards that may be prescribed. I think that we should focus on the things that are in Subpart J that participants want to preserve if the proceeding is conducted under an electronically friendly Subpart G. My current think is that those things might be most easily accommodated by changing the procedural requirements for applications to construct a repository in Subpart A.

New: A Hypertext Application  
 From: Bill Olmstead wjo@nrc.gov  
 Date: 12/20/96 5:36 PST  
 Thread ID: 7:2

I asked the LSSNET Administrator to start this topic because Claudia suggested an approach that I think has a lot of merit. (See the first thread in this topic and my response.) The Comptroller General has just issued an opinion endorsing digital signatures (using the NIST standards but I suspect the commercial standards can be certified by NIST since

their organic statute now provides that all agencies are to adopt industry codes and standards whenever possible.) Given this development, I see no reason not to use web technology to enhance the electronic application by using hypertext to link to related information.

There are a number of issues that merit input from participants such as: 1) Where does the application begin and end? 2) What statements in the application are certified by DOE and what ones are not? 3) Should links be provided to only DOE documents on government servers or should they be provided to any source on the internet that DOE considered? (4) If the latter, what happens when the site linked to is down, discontinued, or moved? (5) Are there special considerations for copyrighted material? (6) How should amendments and updates be handled?

I am sure that participants can think of other issues as well. Nevertheless, it would be useful to begin to gather input and thoughts.