

5/30/88

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MINUTES OF THE HLW LICENSING SUPPORT SYSTEM
ADVISORY COMMITTEE MEETING

MARCH 22-24, 1988
RENO, NEVADA

MEETING LOCATION AND ATTENDANCE

The fifth meeting of the HLW Licensing Support System Advisory Committee (hereafter referred to as the committee) was held on March 22, 1988 from 9:30 a.m. to 5:00 p.m.; March 23, 1988 from 8:30 a.m., to 5:30 p.m.; and March 24, 1988 from 8:00 a.m. to 12:30 p.m. The first two days of the meeting were held at the Best Western Airport Plaza Hotel and the third day was held at the Elks Club in Reno, Nevada.

A list of committee members and members of the public who attended this meeting is appended hereto as Attachment 1.

APPROVAL OF THE MINUTES

As its first item of business, the committee reviewed and made several changes to the draft minutes from the committee's December 14-15, 1987 meeting.

ORGANIZATIONAL ISSUES

Background

Approximately one week after the committee's last meeting, on December 21, 1987, Congress passed legislation to amend the Nuclear Waste Policy Act (NWPA). The principal effect of this legislation was to limit all future site characterization work to be conducted by the Department of Energy (DOE) on the high-level waste repository to the Yucca Mountain site in the State of Nevada. If this site fails to meet the guidelines specified in the NWPA, DOE must go back to Congress to obtain the authority to evaluate other sites.

The staff of the Nuclear Regulatory Commission (NRC) decided to postpone the committee's previously scheduled meeting for the month of January while it assessed the impact of the NWPA amendments on this negotiated rulemaking. On February 5, 1988, NRC issued a notice in the Federal Register announcing that it was amending the charter to the HLW Licensing Support System Advisory Committee to account for the changes that had taken place in the nuclear waste program as a result of the NWPA amendments. The principal effect of this charter amendment was to reduce the number of committee members from fourteen to six. The members who remained from the original committee include the NRC, DOE, State of Nevada, Nevada local governments, the Edison Electric Institute and its Utility Nuclear Waste Management Group, and the coalition of national environmental groups.

Adoption of Organizational Protocols

The members of the newly constituted committee agreed to adopt in full the organizational protocols that had been

developed and agreed upon at the first and second meetings of the committee under its original configuration (see Attachments to the September and October meetings).

Change in Date for the June Meeting

The committee agreed to change the date of the meeting it had previously scheduled for June 15-16, 1988 to June 29-30, 1988. This meeting will still be held in Reno, Nevada. No other changes were made to the committee's previously scheduled meetings.

Requests for Participation

Subsequent to NRC's action to amend the charter of the Advisory Committee, the NRC received letters from several parties concerning their participation in the newly reconstituted committee (copies of these letters are appended hereto as Attachment 2).

One of these letters was from an organization called the Nevada Nuclear Waste Task Force, Inc., a newly formed non-governmental organization representing the interests of the citizens of Nevada. This letter stated that the Task Force had been informed of the work of the committee (and its schedule for completing its objectives) but that it had chosen not to make a formal request for participation at this time. Because the Task Force was not making a formal request for participation, no committee action was taken in response to this letter.

Another letter was from the National Conference of State Legislatures (NCSL). The NCSL had been a "second tier" member under the committee's original charter. The letter stated NCSL's desire 1) to inform all state legislatures, but especially the Nevada legislature, as to (the progress being made in these negotiated rulemaking) proceedings; and 2) to be a resource to potential corridor states as issues related to their participation are crystallized. The facilitator informed the committee that he had learned that NCSL no longer wished to participate as a member of the committee. Rather, the request from NCSL was that it be afforded the opportunity to serve essentially the same function it had served as a "second tier" participant under the original committee structure. Since NCSL did not seem to be making a request to become a full member of the committee, and since there was no one at the meeting to speak on behalf of NCSL, the committee did not take any formal action.

The U.S. Council on Energy Awareness (USCEA) had submitted a request for "first tier" participation at the committee's December meeting. In response to the committee's discussion of that request at the December meeting, a representative of USCEA explained that they were now requesting to participate as part of a coalition with the Edison Electric Institute (EEI). After explaining that this coalition would operate in the same way as the coalition of national environmental groups, the facilitator asked for a vote on the USCEA request, as per the committee's protocols which require an affirmative vote of two-thirds of those committee members present on matters related to requests for participation. Five of six committee members voted in favor of the USCEA request, thereby approving the request. The

representatives of the State of Nevada voted against the request. When asked why, they stated that it was on the basis of Nevada's belief that the USCEA's membership was not significantly affected by the repository licensing proceeding and that the USCEA was not likely to be a party to that proceeding. The representative of USCEA explained that its members included utilities as well as vendors.

Another request for participation had been received from the National Congress of American Indians (NCAI), an organization that had been a "first tier" participant under the committee's original charter. Although there was no one there to speak for NCAI, the committee agreed to consider its request because NCAI's letter had been fairly comprehensive on what was being requested and the reasons why. In discussing this request, the spokesperson for EEI stated that, as he read the letter, NCAI's was basing its request on three factors: 1) that NCAI had been a member and they were offended about being removed from the committee; 2) the desire to represent the interests of NCAI member tribes on issues related to transportation impacts; and 3) their desire to represent NCAI member tribes located in Nevada that had either applied for "affected" status under the NWPA and were denied or had never applied for such status. The EEI representative stated that he was prepared to vote in favor of NCAI's request because EEI believes that NCAI has a legitimate role to play in representing tribal interests in general. However, EEI wanted it to be known that that a favorable vote by them, and by the committee as a whole, should not be construed to mean that transportation interests were a legitimate reason for NCAI participation. Furthermore, a favorable vote should not have any implications or relationship to the status of Nevada tribes under the NWPA (i.e., NCAI's participation should not give Nevada tribes a special claim to "affected" status under the NWPA). The spokesperson for DOE stated that they were in agreement with EEI's statement. With no other comments, that facilitator asked for a vote, the results of which were that all six committee members voted in favor of NCAI's request for participation.

A final request for participation had been submitted by the Corridor Government Planning Group, an organization which consists of representatives from the states of Colorado, Nebraska, New Mexico, Wyoming, and the City of Denver. The request was formally submitted in letters addressed to the NRC from Governors of the State of Colorado and the State of New Mexico. Florence Phillips, a private attorney was at the meeting to speak on behalf of this group.

Ms. Phillips explained that the transportation of nuclear wastes is a major issue for the governments that are members of the Corridor Government Planning Group (CGPG), that the NWPA guidelines for evaluating site suitability for the repository recognize transportation as a national issue, and that the NRC will address transportation issues through review of DOE's environmental impact statement. Ms. Phillips explained that if the committee approved CGPG's request for participation they recognized that they would have to accept the tentative consensus that had been achieved to date. In order to facilitate CGPG's participation, she stated that the group is likely to send an

individual who had previously been participating under the original structure to represent their interests in the negotiations. Furthermore, she explained that whoever represents the organization will have the authority to bind the member governments of CGPG.

The facilitator asked Ms. Phillips to clarify whether CGPG was asking to participate as a "coalition" under the committee's protocols or as a membership organization, and whether the authority that would be conferred upon CGPG's spokesperson would be to bind and commit CGPG as an organization separate from its members or whether it will bind each of CGPG's member governments. Ms. Phillip clarified that CGPG was not asking to participate as a coalition, as per the committee's protocols, and that whomever represented CGPG in these negotiations would have the authority to bind each of its member governments. She also explained that there was a possibility that one additional government may join the group in the near future. The spokesperson from the NRC asked whether this meant that whatever position was taken by the CGPG representative in these negotiations would bar its member governments from taking a contrary position at the conclusion of this rulemaking. Ms. Phillips confirmed that this was an accurate understanding of her statements.

Several committee members questioned Ms. Phillips about why CGPG had not come forward with a request at the start of the negotiations and she explained that the group was still in its formative stages at that point in time. She also explained that many of the member governments had not made individual requests to participate because all four states were going through changes in administration at the time of the LSS Advisory Committee's formation.

Ms. Phillips explained that the December 21, 1987 amendments to the NWPA heightened the interests of these governments in this process, just as it did for the State of Nevada, because it suddenly became more clear where the repository and major transportation routes were likely to be located. A representative of Nevada stated that they would support CGPG's participation as long as they joined the negotiations where they currently stood in terms the tentative agreements that have already been reached.

When asked what their position was on this request, the NRC spokesperson stated that NRC was concerned about the timeliness of this request, as well as the fact that CGPG seemed to be asking for funding from NRC to support its participation. With respect to funding, the NRC spokesperson clarified that the NRC is not providing funding for any members of the committee and is legally barred from providing such funding not only to CGPG, but to any other party as well.

With no other discussion on this matter, the facilitator asked for the committee to vote on CGPG's request. Three parties voted in favor of the request, including the State of Nevada, Nevada local governments, and the coalition of national environmental groups. Since the committee's protocols called for an affirmative vote of two-thirds of the members present (which in this instance required a minimum of four positive votes), the request was denied. After the vote, the spokesperson for the NRC

explained that the NRC fully supported the participation of CGPG as a member of the public.

At a later point in the meeting, the NRC spokesperson revised his earlier statement regarding CGPG's future participation by proposing that CGPG be invited to participate as a "second tier" member of the committee (i.e., CGPG would be granted the ability to participate in the committee's discussions, but no formal "voting" authority when it came time to determine consensus). The committee agreed to extend an invitation to CGPG to participate as a second tier member. Ms. Phillip's explained that she was pleased to receive the invitation but that she was unable to respond until she had a chance to confer with CGPG's members.

EDISON ELECTRIC INSTITUTE'S MEMORANDUM

The Edison Electric Institute's legal representative had circulated a memorandum to members of the committee regarding its position on changes that are needed to NRC's rules of discovery in order to accomplish the three year licensing objective under the NWPA. This memorandum is appended hereto as Attachment 3.

In explaining the rationale for this memorandum, the spokesperson for EEI noted EEI's long standing call for a cost-benefit analysis to be performed for the LSS. EEI recognized that DOE will be preparing such an analysis but noted that it will not be available in time for this committee's deliberations. Thus, EEI, in searching for other ways to justify the costs of the LSS, has proposed changes to NRC's rules of practice that are broader than the changes that have been discussed to date in this negotiated rulemaking proceeding. EEI representatives stated that it was their opinion that unless the broader procedural changes that are proposed in their memorandum were adopted, the three year licensing objective was unachievable.

The NRC spokesperson stated that NRC did in fact contemplate changes to 10 CFR Part 2 as part of this rulemaking, however, the problem with the EEI paper was that it proposes procedural changes that have policy implications (e.g., changing the threshold of contentions). He noted that such changes are outside of the scope of these negotiations. The NRC spokesperson stated that some of what is discussed in the EEI paper is within the scope of these negotiations, including suggestions such as compacting the sequencing of substantive pleadings and any other suggestions for procedural changes that are intended to help meet the three year timeframe.

DOE representatives suggested that what may be more important than making any changes to Part 2, is for the NRC to be more rigorous in its application of the procedures that are already specified in Part 2. Representatives of the State of Nevada stated that, although they agree with many of the suggestions made in EEI's paper, they felt that the suggestions made in the paper go beyond the scope of this rulemaking. They stated it may be more appropriate to address the issues raised in EEI's paper in a separate rulemaking. The spokesperson for the environmental coalition stated that the NRC had published a draft rule over a year and-a-half ago which addressed many of the Part 2 procedural issues discussed in the EEI paper, and that it was

currently in the hands of NRC as to how or whether they will proceed with any changes to Part 2 that go beyond those that are clearly associated with the LSS.

Based on earlier conversations with the NRC, the facilitator suggested that the draft rule that will be presented by the NRC at the next meeting should cover any procedural changes to Part 2 that the NRC believes to be within the scope of this rulemaking. He also suggested that any parties who wish to write their version of the EEI paper should do so and submit it to the NRC with sufficient time for them to consider it in their drafting process. The Nevada representative agreed with this approach with the qualification that the draft rule only cover those changes to Part 2 that are within the scope of this rulemaking. In particular, he stated that it is Nevada's position that discovery issues not related to document production are beyond the scope of this rulemaking. A representative of DOE clarified his understanding that regardless of whether they, DOE, chose to send suggested changes to NRC, the NRC's draft will include changes to Part 2 that are necessary to make the LSS work and to help meet the three year time frame. The NRC spokesperson confirmed this understanding.

The NRC spokesperson referred to the original Federal Register notice which established this advisory committee which described the scope of issues as any changes that are necessary to Part 2 to allow for the effective operation of the LSS. Furthermore, he stated that it was NRC's belief that such changes will allow the NRC to meet the three year deadline. When asked whether NRC was contemplating another rulemaking to address any procedural rule changes not related to the LSS, the NRC spokesperson stated that he did not know the answer to this question and that anything he had said should not be construed as a commitment to do so.

The spokesperson for EEI stated that EEI agreed to disagree with NRC, for the time being, about whether the "narrow" LSS related rule changes contemplated by NRC to Part 2 will accomplish the three year licensing objective, until they have a chance to review the draft rule.

PUBLIC COMMENT

The facilitator asked whether there were any members of the public who wished to comment on the committee's deliberations up to that point in time. With no response forthcoming, the facilitator moved on to the next agenda item.

TECHNICAL WORKING GROUP REPORT

The facilitator asked whether any of the committee members had questions about the technical staff working group's report entitled "Information Retrieval Systems: A Tutorial" (appended hereto as Attachment 4). None of the committee members had any questions about the report, but several members stated they had found it to be of high quality and very helpful to them in their efforts to further understand the technical issues.

PROPOSED CONSENSUS STATEMENT #1: DISCOVERABLE RECORDS

In preparation for this meeting, the facilitators had prepared "proposed consensus statements" on three issues that had

been discussed at the committee's previous meetings, including: 1) what kinds of documents should be consider a "discoverable record," 2) of these discoverable records, what categories of documents should and should not be entered into the LSS in searchable full text, and 3) how should privileged material be handled. These proposed consensus statements are appended hereto as Attachment 5.

Consistent with the intent of proposed consensus statements numbers 1 and 2, several committee members had prepared lists of categories of documents that should be considered discoverable, and of these, which should be included in the list of documents to be entered in searchable full text, or excluded from the list of documents to be entered in searchable full text. Such lists were provided by the State of Nevada (see Attachment 6), the coalition of national environmental groups (see Attachment 7), and the DOE (see Attachment 8).

In explaining how its list was structured, the Nevada representative explained that it was Nevada's position that all "discoverable documents" should be entered into the LSS in searchable full text. As stated in the cover letter to Nevada's list, their "includables" list was intended to "quite simply capture every document which has any application to the repository siting and development process which is not otherwise excludable." The spokesperson for the environmental coalition explained that their list was structured on the same premiss.

The spokesperson for the DOE explained that DOE's lists distinguished between discoverable records that should be entered into the LSS in "enhanced full text" (a term which signifies the use of "bibliographic headers" combined with "searchable full text," see glossary of technical terms included in Attachment 4), as well as discoverable records that should either not be entered into the LSS at all, or should not be entered into the LSS in enhanced full text but, presumably, entered into the LSS through some alternative means of data entry (e.g. subject term headers or abstracts).

After hearing the explanations that each party had about what their lists were intended to signify, the facilitator clarified that the focus of the committee's efforts at this stage were to agree on a list of the categories of discoverable records that should be included in the LSS, regardless of whether they would be included in searchable full text or some other alternative form of document entry/data management. Thus, he suggested, and the committee agreed, to review each of the three "includable" lists first, and to use these as the basis for the development of a master list that would be added to consensus statement #1.

Before reviewing these lists, the spokesperson for the NRC stated that NRC had some suggested revisions to the language in proposed consensus statement #1. (These revisions were included as an attachment to a memorandum dated March 10, 1988 which the NRC had distributed to committee members prior to the meeting. This memorandum and its attachments are appended hereto as Attachment 9).

The NRC representative explained that the major purpose of the proposed language revision was to clarify that "discoverable records," as used in the original draft, should include

discoverable material and information that are not "documents" per se, but are nonetheless discoverable or could lead to documents that are potentially discoverable. A representative of the State of Nevada indicated that their definition for the term "document," which is included in the preamble to their list of includables and excludables, was intended to accomplish the same objective. Other committee members agreed that this should be the general intent.

One other issue addressed by the committee before moving to the lists of "includables," was the suggestion from EEI's representative to change consensus statement #1 to reflect the changes to the NWPA which have resulted in the focus on a single site. The representative for the State of Nevada stated that Nevada is not willing to concede that information that was gathered in connection with the suitability of the other two sites that had previously been under consideration was not or will not be relevant to siting at the Yucca Mountain site. Others pointed out the the amendments to the NWPA allow for the possibility of sites other than the Yucca Mountain to be considered through the efforts of the "independent negotiator" to solicit state's who are willing to volunteer to be consider as a host state for the repository.

After some additional discussion, the committee agreed that the language that should be used to introduce the list of discoverable records should reflect the changes to the NWPA, but the concept of relevance should still dictate whether a document or other forms of information should be considered "discoverable." The committee agreed to change the wording to read: Any records, documents, material or information that is relevant or likely to lead to information that is relevant to the licensing of the geologic repository at issue in the proceeding should be considered "discoverable" and therefore be placed into the LSS (once again, this proposed consensus statement does not address the issue of whether it should be entered into the LSS in searchable full text or not).

The committee also agreed that whatever language is used to introduce the list of "discoverable records" should indicate that the list which follows should be considered as examples or guidance on the categories of documents, records, material and information that should be considered discoverable, rather than being an all-inclusive, inflexible list. They also agreed, in general, that some sort of pre-application dispute resolution mechanism would be a necessary component of this approach (this issue was discussed in detail by the committee under a separate agenda item and is captured below).

The State of Nevada's List of "Includables"

The committee focused its attention first on the State of Nevada's list of "includables" (see Attachment 6). The following is a summary of the various changes and points of clarification raised in the committee's discussion of this list:

- o Item #1: The term "high-level" was inserted wherever the term "nuclear waste" was used and it was agreed that this change should be made consistent throughout.

- o Item #2: It was clarified that the term "Department of Energy" at the conclusion of the sentence referred to the Office of Civilian Radioactive Waste Management (OCRWM). It was also clarified that it was Nevada's intent that this item should be applied to LSS users and parties to the licensing proceeding other than DOE/OCRWM.
- o Item #3: It was clarified that documents which fall under this category, and all other categories as well, were meant to refer to documents that are within the "custody or control" of OCWRM (or other parties), not all documents ever published that can be considered to fall within the limits of this category of information. It was agreed that this should include documents that DOE (or another party) was aware of and considered, as well as documents which they planned to rely upon.
- o Item #4: It was clarified that what was being requested under this item was not all documents ever produced on the alternative of deep sea bed repository, for example, but those documents on alternative sites and alternative technologies that are relevant to the licensing of the repository at the Yucca Mountain site, or whatever site is ultimately the subject of the proceeding.

The Environmental Coalition's List of "Includables"

The next list that was reviewed by the committee was the environmental coalition's list of includables (see Attachment 7). A representative of DOE stated that this list seemed to be a list of topics that DOE should be considering in the development of the Site Characterization Plan. The spokesperson for the environmental coalition confirmed that the list was of topic relevance, rather than a list of categories of document types. Both the DOE and the environmental coalition agreed that this rulemaking proceeding was not the forum to argue for what should or should not be included in the DOE's Site Characterization Plan. It was also agreed that the items included in this list would be applicable to all parties, not just the DOE. Additional changes and points of clarification regarding this list were as follows:

- o Item I.F.1. - It was agreed that Lincoln County and Azmerelda County should be added to the list of counties that are included in this section.
- o Item I.F.4.d. - The potential relevance of "attitudes and perceptions toward the repository" was discussed by the committee and it was agreed that this item should not be stricken from the list of includables.
- o Item II.C. - It was clarified that the word "alternative" in the phrase "alternative site characterization activities" was meant to modify "characterization activities" rather than "site."

The spokesperson for the NRC stated that a potential problem with this list was that in some instances it went beyond issues that are relevant to 10 CFR Part 60. The environmental coalition representative replied that the list was based on the guidelines for site characterization. A representative of the State of Nevada suggested that the topical nature of this list might be a useful way of organizing the headers to keep track of the documents that will be entered into the LSS.

The Department of Energy's List of "Includables"

In reviewing the DOE's list of includables, the committee was generally in agreement that all items listed were appropriate for entry into the LSS (regardless of how they might be entered). A representative of the State of Nevada proposed that the first item, listed in the DOE's includables list as "technical reports and analysis including those developed by contractors," should include the data that was used in developing those technical reports. It was explained that such data is currently and will continue to be available, but that it was technically impossible to enter such data into the LSS in a searchable full text form because it would not be "text" that was being entered. The committee agreed to defer discussion of this issue and to address it as part of the larger question of how discoverable documents should be entered into the LSS.

Summary of the Discussion of the List(s) of "Includables"

The committee agreed that the three lists that had been submitted and reviewed at this meeting should be combined to form an integrated list of the categories of documents that should be entered into the LSS, as well as the topical headings of the information that should be contained in the LSS, regardless of how it might be entered (i.e., searchable full text or some other form of document entry/data management). It was also agreed that this list should serve as "guidance," meaning that the items listed are not the only categories or topics that should be considered a discoverable or potentially discoverable record. The committee agreed that procedures should be established to allow additional categories or topics to be added at some future date. Finally, it was agreed that this guidance list would not be handled as an appendix to the rule, but rather as part of the rule so that it was understood that the list was to serve as a minimum requirement rather than voluntary guidance.

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The State of Nevada's List of "Excludables"

As part of the discussion of consensus statement #1, the committee moved on to address the proposed lists of categories of documents that would be excluded from automatic entry into the LSS in any form. It began with the State of Nevada's proposed list of "excludables." The following captures the changes and points of clarification raised in the discussion of this list:

- o Item #1 - It was clarified that the term "identical" does not include copies of documents that contain marginalia. However, the representative of the State of Nevada stated that it would not be necessary for the document which contains marginalia to be entered in its entirety. Thus, it was agreed that the language used in this section of the excludables list should be: "Those portions of documents that are identical to documents which are otherwise includable within the (LSS)."
- o Item #2 - Although this item included a definition for the term "programmatic document," several members of the committee were still unclear of how this term might be applied.
- o Item #3 - A DOE representative stated that he was concerned with the ability of the Department to sort through travel vouchers in order to identify those which pertain "to travel to Yucca Mountain to collect sort, analyze or disseminate data about Yucca Mountain." It was proposed that any information related to travel be entered into the LSS only after one or more of the parties had petitioned for its inclusion as the licensing period drew closer.

The Department of Energy's List of "Excludables"

The DOE's list of excludables was organized according to "material not to be included in the LSS" and "material included in the LSS but not in enhanced full text." Since the focus of the committee's discussion was still on the broader question of what categories of documents should be entered into the LSS, rather than how it should be entered, only the first element of the DOE's excludable list was discussed at this stage. This element included two subcomponents: public domain material and personal records. The following captures the changes and points of clarification made during the discussion of this list:

- o Item #4 under "Public Domain Material" - It was agreed that RFPs in general were appropriately listed as "excludable," with the exception that the "scope of work" for RFPs should not be so listed (i.e., the scope of work portion of RFPs that are relevant to the licensing of the HLW repository should be included in the LSS).
- o Item #5 under "Public Domain Material" - It was agreed to strike this item (interagency agreements) from the list.
- o Item #2 under "Personal Records" - Several members suggested that handwritten notes should be included in the LSS and therefore be removed from the list of excludables. DOE representatives stated that they were concerned about the chilling effect on the free exchange of ideas within the Department that would

occur if all handwritten notes and personal records were to be included in the LSS. They also raised objections from a practical perspective, saying that including handwritten notes and personal records would not be workable because it would require saving and reviewing every scrap of paper generated within the Department. The NRC spokesperson agreed that attempting to capture all handwritten notes and personal records would be unworkable. He suggested that they only be entered after a key witness has been identified and such documents are discovered as a result of derivative discovery. When asked what happens to these documents in the meantime, he responded that it would depend on agency record keeping procedures. A representative of DOE indicated that the agency's records management system will be designed to capture handwritten notes that can be considered agency records or otherwise to instruct agency personnel to translate handwritten notes into typed documents. A representative of the State of Nevada stated that their position was not that all handwritten notes should automatically be included in the LSS, but only those that become part of the agency's official records. Furthermore, if a person within the agency saves, as part of his or her own personal record keeping, handwritten notes that are relevant to the proceeding, these will be discovered at the time of depositions and will be entered into the LSS thereafter. The only exception that they saw to this would be field notes that are produced by technical analysts during site visits.

- o Item #3 under "Personal Records" - This item (documents containing marginalia) had been addressed above in the discussion of item #1 of the State of Nevada's list of excludables. As per the tentative agreements reached in that discussion, it was removed from DOE's list of excludables.
- o Item #4 under "Personal Records" - It was agreed that only those portions of electronic mail transmittals that are relevant to the HLW repository licensing should be included in the LSS.

Summary of the List(s) of "Excludables"

It was agreed that the State of Nevada's list of excludables and that portion of the DOE's list of excludables which relates to what documents should not be entered into the LSS, rather than in what form they should be entered, should be combined to form a single list of excludables for purposes of providing guidance under proposed consensus statement #1. The term "guidance" being used here in the same way as it was with the list of includables.

PROPOSED CONSENSUS STATEMENT #2: CRITERIA FOR DETERMINING WHETHER DISCOVERABLE DOCUMENTS WILL BE ENTERED INTO THE LSS IN SEARCHABLE FULL TEXT

The facilitator introduced this subject by explaining that there were at least three proposals that have been introduced on the issue of what discoverable documents should be entered into the LSS in searchable full text versus some alternative to searchable full text. The first was from the State of Nevada and the environmental coalition. This position was that everything should be entered into the LSS in searchable full text. The second was the NRC's original position, as stated in the position paper that was distributed at the committee's November meeting. This position called for the use of a date certain, after which all documents would be entered in searchable full text and before which documents would only be entered if they were to be relied upon by one of the parties to the proceeding. The DOE lists of inclusions and exclusions seemed to suggest a third possibility that some of the material that should be entered into the LSS should not be entered as searchable full text. The general categories that were used to describe these items were material that is in an "unsuitable form" for searchable full text, and "privileged material."

The spokesperson for the NRC stated that this was one area that the NRC was concerned about costs. In particular, the NRC is concerned about the cost of entering "backlogged" documents into searchable full text because of the costs of conversion, regardless of what method might be used (e.g., optical character reader versus rekeying). It was for this reason that they proposed using the "reliance criterion" as a means of setting priorities for what backlogged documents should be entered into the LSS in searchable full text.

DOE representatives indicated that the preliminary results of their studies were that the cost of "scanning and indexing" backlogged documents (i.e., creating both an electronic image and the capability to conduct an electronic full text search on a document) was approximately \$4.00 per page. In explaining this figure, DOE representatives stated that the majority of this cost was for the creation of the searchable full text "index" of the document, rather than the electronic image. This component of the total cost remained high regardless of whether the method used was to rekey the document or to use an optical character reader. Both methods would require error correction and verification procedures which constitute a significant portion of the total costs. It was also clarified that this figure does not include the cost of creating a bibliographic header for the document.

With regard to the creation of an electronic image through the use of a scanner, DOE representatives explained that the costs of actually creating an electronic image of a document was relatively small and the real expense here had to do with the storage, transmission and display of the electronic image, rather than its creation (only the costs of creating the image are included in the figure of \$4/page). Furthermore, they stated that any savings that might accrue from using microfilm as a storage, transmission and display device for images is likely to be minimal.

DOE representatives emphasized that the cost figures used in this discussion were preliminary and that they only related to

those limited purposes described (i.e., the cost of document capture both in terms of an electronic image and full text search capability). When asked whether they had a better understanding of the total number of documents that are likely to be entered into the LSS in searchable full text, they stated that their current estimates are that by 1990, 11 million pages of backlogged documents will have to be entered into the LSS in searchable full text at a cost of approximately \$3.00 - \$4.00 per page, and that another 29 million pages (for a total of 40 million pages) will be generated and entered into the LSS after it is up and running in 1990. The cost for entering these "prospective" documents will run from approximately \$1.50 per page to as high as \$3.00 - \$4.00 per page depending on who generated the document and how it was generated. In particular, the cost of entering "prospective" documents that are submitted by parties in hard copy, rather than electronic form, or from word processing technology that is incompatible with the technology used for the LSS, might result in costs that are the same as they would be for entering "backlogged" documents.

A representative of the State of Nevada stated if the upper end of the costs for doing this turned out to be \$160 million (40 million pages x \$4/page) over a period of 10-20 years, for placing all 40 million pages of documents into the LSS in searchable full text, this cost was not significant enough for them to change their position. He added that the State of Nevada was now convinced that all documents that will be entered into the LSS should include a bibliographic header, in addition to being entered in searchable full text.

EEI representative stated that if the \$160 million figure is accurate and it represents only the cost of document entry, it would be of concern to them.

DOE representatives did not express an opinion on whether all documents should be entered in searchable full text and, because there was insufficient information to convince the proponents of full text that the costs were not justifiable, the committee agreed to disagree on this issue for the time being. DOE agreed to present more detailed cost information on this issue at the committee's next meeting. In addition, the committee requested that the NRC draft rule, to be presented at the next meeting, address the issue so that the committee members have an opportunity to respond to a concrete proposal.

PROPOSED CONSENSUS STATEMENT #3: PRIVILEGED DOCUMENTS

The next issue addressed by the committee was proposed consensus statement #3 which dealt with the subject how to handle privileged documents (see Attachment 5). In addition to the language that was proposed by the facilitators, the committee considered revisions to this language proposed by the NRC as part of its March 10, 1988 memorandum (see Attachment 9). The following captures the changes and points of clarification made to Section A of this proposed consensus statement --

Attorney-Client and Attorney Work Product Privileges:

- o Item A.1. - It was agreed that the term "all parties to the licensing proceeding" should be changed to "all parties who seek access to the LSS." This change was

intended to address problems associated with the fact that the LSS will be in use before DOE's license application has been submitted and, therefore, before LSS users can achieve intervenor status. Thus, the term "party" should be defined at the outset of the rule not to refer to legal standing but as a more general term meant to refer to LSS users as well as intervenor status.

- o Item A.1. - When asked why their proposed revision to A.1. deleted the words "searchable full text," NRC representatives responded that, although the issue of what should or should not go into the LSS in searchable full text remains unresolved, NRC's technical staff have concerns about the ability to protect any document that is entered into the LSS in searchable full text format. DOE representatives agreed with this assessment and recommended that bibliographic headers be used to "identify" documents in the LSS for which a privilege has been asserted, that hard copies of these documents be given to the pre-application licensing board for a decision, and within 24 hours of this decision, if appropriate, the document would be entered into the LSS in searchable full text.
- o Item A.2. - The committee discussed whether the federal rules of discovery and evidence or NRC case law should be applied during the pre-license application period. DOE was not willing to be bound by the latter during this period, even if they had appeal rights. Although NRC stated that NRC case law follows federal rules and federal case precedent, DOE's concern was that the NRC liberally applied such rules and precedent. The committee agreed to strike this item from the proposed consensus statement, but it also agreed, in principle, that all disputes concerning privileges will be resolved through a pre-application licensing board and that parties would have full rights of appeal during the pre-application period. It was agreed that this issue should be addressed further as part of the discussion of the use of a pre-application licensing board.
- o Item A.3. - It was agreed that the all documents for which a privilege has been asserted should be identified in the LSS through the use of a bibliographic header. This header should include a information about the privilege that is being asserted, as well as the other information items specified in this section of the proposed consensus statement.
- o Item A.4. - It was agreed that the headers should be entered into the LSS "reasonably contemporaneous" with the generation of the documents for which a privilege is being asserted, rather than "no later than three months (or some other date to be determined by the

committee)," as is stated in the proposed consensus statement.

The committee's discussion of Section B - Deliberative Process Privilege - focused on whether this privilege will be available to the DOE's Nuclear Waste Program. The committee agreed, once again, to disagree on this issue. It also agreed to drop any distinctions about whether different privileges should be handled differently. Thus, the procedures which are implied in items 1-4 of section A of proposed consensus statement #3 should be read as applying generically to all privileges, not just attorney client privileges. This section of the rule should, therefore, drop any reference to the types of privileges that can or cannot be asserted.

ISSUE #18: TIMING OF ENTRY OF DOCUMENTS

This issue, which is listed as Issue #18 in the NRC's Position Paper which was distributed at the November 19-20, 1987 meeting, relates to the timing of entering documents into the LSS. With respect to "prospectively" generated documents (i.e., documents generated after the LSS is up and running), the committee clarified that it had already agreed that these documents will be entered into the LSS "reasonably contemporaneously with their creation" or "as soon as practicable after their creation." It was also clarified that entry included the creation and entry of a bibliographic header for every document to be entered into the LSS.

The more difficult issue with respect to the timing of entering documents relates to the "backlogged" documents. The facilitator noted that the committee had addressed this issue at its December meeting and one of the proposals put forth at that time was for the committee to establish a deadline for entering all backlogged documents that would be tied to the start of the licensing processing. The example used was that DOE would not be able to submit its application until two years after all backlogged documents had been entered into the LSS.

DOE representatives stated that they had concerns about the two year deadline approach. They estimated that there are currently some 8 million pages of relevant material that can be considered "backlogged" and that 3 million more pages are likely to be created between now and 1990. Their contract for the LSS requires loading 4 million pages into the LSS by 1990. Thus, if these estimates are accurate, and if the LSS contractor and DOE are able to stick to their respective systems development and licensing schedules, a two year deadline for loading all backlogged documents would require loading the remaining 7 million documents by the first quarter of 1993. DOE representatives stated that there were too many uncertainties for them to be able commit to such a schedule at this point in time. They suggested that the committee try to set priorities for what documents need to be entered first.

The spokesperson for EEI stated that the two year deadline approach was unacceptable to them and that EEI was not willing to have the loading of backlogged documents serve as the determining factor for which the licensing process could start. They felt

that this effort (i.e., the use of the LSS), should be considered experimental and that there is currently not enough information to determine what it will take to load these backlogged documents. They supported the need for the committee to set priorities for entering a "core group" of backlogged documents.

The NRC spokesperson suggested that there were several important factors to consider. First, given the size of the record that will be created it was important that the parties to the proceeding have a reasonable period of time to review the material and prepare for the proceeding. Second, they were troubled by the perceived need to enter 11 million pages of backlogged documents into the LSS. He stated that NRC also supported setting some priorities for document entry and explained that this was the original intent behind their proposed use of the reliance criterion to determine which backlogged documents should be entered in searchable full text.

A representative for the State of Nevada stated that a "core group" of documents is not what is important if the LSS is to serve as discovery tool for all discoverable documents. Nevertheless, he stated that Nevada supported the need to set priorities and volunteered to do so with the list of includables that had already been submitted by the State of Nevada.

A DOE representative suggested that the committee set a deadline for entering some significant percentage of the backlogged documents by the two-year deadline and that all other backlogged documents be entered by the date of the license application submittal. Questions were raised about how to certify whether DOE has met any deadline that might be established for entering backlogged documents. DOE could representatives stated that the can commit to a priority oriented approach to working off the backlog, but they could not commit to an approach that would require some sort of absolute completion of this task because it is impossible to define with any precision the universe of "backlogged" documents. The concept of certifying that DOE was in "substantial compliance" with whatever requirements might be imposed by the rule was raised by several members of the committee. A representative from the State of Nevada also suggested that an LSS user auditing committee might be a useful mechanism for certifying DOE compliance.

NRC representatives stated that the committee had already agreed on a list of includable documents and on the need for a dispute resolution mechanism to handle disputes regarding document entry and other issues during the pre-application period. They suggested that what might be needed is way to use the proposed dispute resolution mechanism to determine whether DOE is in "substantial compliance" in meeting whatever document entry schedule is ultimately agreed upon.

In summarizing the discussion, the facilitator noted that the committee agreed in principle that DOE should try to get all backlogged documents into the system and to use a priority list for entering these documents into the system, combined with the use of a reasonable deadline for certifying that DOE is in "substantial compliance" for entering all backlogged documents in advance of the licensing proceeding. It was agreed that NRC staff should address this issue in the draft rule to be presented at the next meeting and that this draft should build upon the committee's discussion of this issue.

HOW TO HANDLE DRAFTS, HANDWRITTEN NOTES AND MARGINALIA

The next item on the committee's agenda was listed as "how to handle drafts, handwritten notes and marginalia." Committee members agreed that their previous discussions had resolved issues relating to the handling of handwritten notes and marginalia. These agreements were summarized as follows:

- o Handwritten notes that are discoverable/relevant would be captured as would any other discoverable document. The primary distinguishing factor will be whether those notes can be considered an agency record.
- o Those pages which contain notes in the margins of documents (i.e., marginalia) that are otherwise captured in the LSS will be captured as separate documents. However, there is no need to capture identical portions of documents which contain marginalia.

In discussing how to handle "drafts," the committee was referred to DOE's list of includables which lists "drafts" as being appropriate for entry into the LSS. DOE defines "drafts" as being documents which are "submitted for decision beyond the first level of management." When asked to explain this definition a DOE representative made the distinction between a "preliminary" draft and a "concurrence" draft and stated that drafts that circulate within the agency for concurrence purposes would be included in the LSS but drafts that do not reach this stage of review would not because these earlier drafts would not be considered an agency record. When asked why these earlier drafts should not enter into the LSS, a DOE representative responded that they would fall under the deliberative process privilege. DOE was asked whether it would create a bibliographic header and identify all drafts, regardless of their status, in the LSS. DOE responded that it should not be required to create a header for preliminary drafts that do not reach the level of an agency record.

Several committee members indicated that a "concurrence" draft, as defined by DOE, may not capture draft documents that they felt should be captured in the LSS. In particular, they wished to capture drafts of documents that are beyond the stage of an individual redrafting their own document, where the "draft" was being circulated within the agency for substantive comment even if this fell short of the stage of it being a "concurrence draft." It was agreed that NRC will try to address this issue in the draft rule to be discussed at the committee's next meeting and that DOE will respond to the language that is used therein.

A discussion then ensued about the effect that requests made under the Freedom of Information Act (FOIA) would have on the determination of what constitutes an "agency record." In particular, the NRC spokesperson pointed out that under FOIA this determination is made at the time of the request. "Draft" documents that are destroyed before the time of the request

cannot be considered an agency record, however, if the "draft" exists at the time of the request it can be considered an agency record and therefore should be placed in the LSS. Thus, because the LSS is essentially an ongoing FOIA request, the NRC spokesperson stated that there needs to be a way to purge documents that should not be entered into the LSS. That is, each party needs to set up a records management system that will capture documents that people keep for good reasons and to purge documents that are legitimately not intended to be entered into the LSS.

A DOE representative responded that an initial threshold criterion about whether a document can be considered an agency record is an important. He stated that the LSS may be the equivalent of an ongoing FOIA request but this does not mean that DOE should be entering documents that it does not consider to be an agency record. Furthermore, the LSS should not be used to usurp DOE's internal records management system. If an individual staff person does not follow agency procedures and saves drafts that should have been thrown away and these drafts are discovered at the time of a deposition, the DOE representative stated that it is appropriate that they should be entered into the LSS at that stage but not before. Another example posed was that parties can submit FOIA requests to review earlier drafts after a concurrence draft is placed in the LSS. DOE would then review the FOIA request and determine whether to assert a deliberative process privilege. If a privilege were asserted and challenged, the issue could then be resolved through the dispute resolution mechanism established under this rule.

DOE representatives also noted that their list of includables proposes that "internal memoranda" should be entered into the LSS. They stated that DOE intended this to be a mechanism through which contrary opinions among both agency staff and contractors can be captured in the LSS. They explained that this proposal went beyond their normal record keeping procedures and was meant to respond to criticisms about the agency trying to stifle such opinions.

ISSUE #9: DERIVATIVE DISCOVERY

NRC's position on the scope and procedures for derivative discovery in the HLW licensing proceeding is listed as issue #9 in the November NRC Position Paper. It was agreed that the first paragraph should be changed to reflect the agreements reached earlier (and stated above) concerning the handling of handwritten notes and marginalia.

The committee discussed the pros and cons of entering discoverable documents that had not previously been entered into the LSS after a notice of deposition has been issued but prior to the actual deposition, or after the deposition. Representatives of the State of Nevada suggested that the goal of the LSS is to get as many discoverable documents as possible into the LSS prior to the deposition and suggested that the notice of deposition and the subpoena ducis tecum serve as the trigger for entering handwritten materials, marginalia and other discoverable documents not previously entered. DOE representatives suggested that such documents should be entered after the deposition in order to avoid unnecessary and duplicative loading. The

spokesperson for the environmental coalition suggested that each party who is served with a notice be required to enter an index of the documents that he or she will be bringing to the deposition. The committee was generally in agreement with this approach and discussed the following steps as a possible solution to this issue:

- o Notice of deposition and requests for discoverable documents are served through electronic mail.
- o The person who is served with the notice must create an index of all discoverable/relevant documents in his or her possession, indicating which of these documents have already been entered into the LSS and which have not. Handwritten notes and documents which contain marginalia which have not been previously been entered will be listed as separate documents. This index will be entered into the LSS prior to the deposition.
- o Prior to the deposition, the requesting party can ask to review any documents listed in this index. Any documents requested for review prior to the deposition could be exchanged either through the LSS or in hardcopy.
- o The deposed party must bring all documents listed in the index to the deposition.
- o Any documents that are brought to the deposition that will be relied upon and have not previously been entered into LSS will be entered immediately following the deposition.

MECHANICS OF THE LSS

The next set of issues addressed by the committee were organized under the heading of "mechanics of the LSS." The first subissue addressed by the committee under this heading was the format for document entry.

Issue #6 - Format (for Document Entry)

The NRC's position on this issue is specified in the March 10, 1988 memorandum (see Attachment 9). The NRC spokesperson stated that the agency's goal is to devise a standardized format that will make the entry of "backlogged" documents that are created between now and the final system design easier and, eventually, to facilitate contemporaneous entry after LSS start-up date. He suggested that the committee ask the technical work group to address this issue and make a recommendation to the committee, rather than address it at the committee level. The committee agreed with this approach and requested the facilitator to help organize the technical work group and ensure that all parties have an opportunity to send a technical representative to its work sessions.

Issue #7 - Submission of Documents

NRC's position on this issue is also described in the March 10 memorandum (see Attachment 9). In explaining the agency's

position, the NRC spokesperson clarified that it was intended to apply to the obligations of the parties concerning the submission of both "prospectively generated" documents and "backlogged" documents after the LSS was up and running. It was agreed that the work group should develop recommendations on the format for bibliographic headers, as well as for the submission of documents in ASCII format.

Several committee members stated that it seemed as if the NRC position on the submission of documents assumes that the LSS will be a centralized, rather than a decentralized system. DOE representatives questioned whether the issue of how documents should be submitted was a system design issue rather than a rulemaking issue. The facilitator suggested that the broader question, beyond precisely how documents should be submitted, is what are the obligations of the parties concerning the submission of documents.

In responding to the NRC position, the spokesperson for the environmental coalition stated that it would be willing to submit their documents in ASCII electronic format, to create and submit bibliographic headers for all documents to be submitted, and to supply a hard copy of these documents. She stated that they would not willing to supply an electronic image. The NRC spokesperson stated that the latter was not intended to be a requirement but they did not want to rule out other parties submitting an electronic image of documents.

The committee agreed that the obligation of the parties for the submission of documents should include: 1) submission of documents to be entered in searchable full text in ASCII format; 2) bibliographic header for all entries into the LSS; and 3) an image (i.e., hardcopy, electronic, or microfilm) of all documents to be entered in searchable full text.

A representative of EEI asked what the term "for which a party is responsible" means (first sentence of the NRC's position of this issue). NRC representatives responded that it means that the parties who generate or authorize the generation of a discoverable document are obligated to submit that document to the LSS Administrator in the format specified in the rule, as well as documents that they will be relied upon that they may not have generated and have otherwise not been entered into the LSS by another party.

Committee members noted that NRC's position on this issue assumed that there will be an entity called the "LSS Administrator." It was agreed to discuss this concept at a later point in the meeting (see below).

Issue #10 - Dumping

After reviewing the language in the NRC's November 19-20 Position Paper on this issue, the committee agreed that this issue had been resolved through the use of the includable and excludable lists. Therefore, the committee agreed to remove this issue from any further consideration.

Issue #11 - New Information

The committee felt that the NRC's position on this issue, as stated in the November 19-20 Position Paper, was generally

understood to be the obligation of all LSS user parties. Thus, they felt this issue to be redundant with many other issues and removed it from any further consideration.

Issue #12 - Additions

In explaining their position on this issue, as set forth in the November 19-20 Position Paper, a representative of NRC stated that their intent was to establish a mechanism by which the parties can find out what has been added to the LSS. It was felt that the use of an "electronic accessions list" would accomplish this need.

It was confirmed that the "electronic accessions list" that is referred to in NRC's position on this issue is the same that is referred to in NRC's position on issue #7 -- Submission of Documents (see Attachment 9). DOE representatives pointed out that such a list could be created automatically by designing the system to accomplish this rather simple task. Thus, the committee agreed not to burden the parties with the obligation of providing the LSS Administrator with such a list, and to rely on the systems designers to figure out how to accomplish this task.

Issue #13 - Amending Records; and Issue #15 - Incorrectly Excluded Records

In questioning the NRC's position on this issue, as stated in the November 19-20 Position Paper, a representative of EEI asked whether the NRC intended to place an obligation on the parties to conduct quality assurance (QA) procedures on the documents they will enter into the LSS. NRC responded that they did not intend to place an affirmative obligation on the parties, but rather to simply provide a mechanism by which the parties can verify the accuracy of what was submitted and make corrections to faulty entries before they become "locked in." NRC representatives noted that the mechanism that they proposed assumes some amount of good faith on the parties not to "correct" documents that had been correctly submitted as "drafts."

DOE representatives pointed out that the system will be designed so that it will not be possible for the parties themselves to make corrections to documents once they have been submitted. The committee agreed that the LSS Administrator would have to be the person or entity that would actually make the corrections to faulty entries. Thus, the committee agreed that the term "LSS Administrator" should be inserted into the language used in the NRC position on this issue to indicate that the parties must notify the LSS Administrator of the need for any changes before the deadline for making corrections, the entry of a separate corrected document after the deadline, and the need to make notations in the original document that a corrected version has been entered.

(In discussions which took place under issue #26, see below, several committee members felt that it would be appropriate to place an affirmative obligation on the parties to verify the accuracy of documents which they have submitted for entry into the LSS.)

Issue #16 - Authentication

In answering questions about their position on this issue, as stated in the November 19-20 Position Paper, NRC representatives explained that their intent was to establish a mechanism by which the "system" knows that the person who says they are sending the document is really that person. When asked what the term "electronic signature" means, NRC representatives responded that the most common form of this is a password security code. It was suggested that the rule specify exactly what was intended here and that the terms "electronic signature" and "password security code" be added to the glossary of technical terms.

It was clarified that this issue was not intended to address the verification of the authenticity of the document that is submitted for entry into the LSS, but rather the authenticity of the identity of the party which is submitting the document. The former is addressed under issues #13 and #15, which are discussed above.

Issue #26 - Use of the LSS During the Licensing Proceeding

The NRC's position on this issue, as specified in its March 10 memorandum (see Attachment 9), was generally accepted by the committee with one exception. Several committee members suggested that some alternative be found to the requirement that each party notify all other parties by telephone that they should have received an electronic mail transmission. When asked whether the NRC intends to require the parties to name a lead counsel for purposes of notification, the NRC responded that they would. When asked whether the LSS itself would have electronic mail capability, NRC responded that it did not matter because the concept was to use this technology, regardless of whether it is designed as an integrated component of the LSS or not.

It was confirmed that the term "online access" in subsection #3 of the NRC position on this issue means that computer terminals will be in the hearing room and that all parties and members of the licensing board will have access to them and thereby access to the LSS during the hearing. It was suggested by several parties that it may be possible to have transcripts be created in "real time," rather than on a "daily basis," as is suggested in the second paragraph of subsection #1. NRC representatives stated that even if this were possible there is still a need for the parties to have an opportunity to verify the accuracy and make corrections to the transcript in a timely fashion. It was suggested that the draft rule state this as an affirmative obligation for the parties.

Issue #22 - Exemptions

The spokesperson for the NRC stated that their position on this issue, which can be found in the November NRC Position Paper, had been made moot by the tentative agreements reached at this meeting. He explained that the only issue that might require special treatment regarding the allowance of exemptions or waivers is the cost issues still to be discussed (see below). The committee agreed with this assessment and proceeded with the discussion of cost and public access issues.

WHO GETS ACCESS TO THE LSS AND HOW?

These questions are addressed as issues #20 and #21 in the NRC's November 19-20 Position Paper. The committee agreed to start by focusing on issue #21 -- Cost.

Issue #21 - Cost

This issue pertains to how to allocate the costs that are associated with access to the LSS by the parties to the proceeding, as distinguished from access by members of the public.

The spokesperson for the coalition of national environmental groups explained that the fee waiver system currently in use under FOIA allows parties with limited resources to request that the responding agencies waive the fee that is normally charged to recoup the costs associated with gathering and mailing the information that has been requested. She proposed that this fee waiver system be transferred to the LSS. Representatives of DOE questioning whether this would be permissible under the NWPA, and the spokesperson for the environmental coalition responded that she was not requesting "intervenor funding," which she understood to be a problem under NRC's rules and the NWPA, but rather she was requesting the equivalent of the FOIA fee waiver system. She explained, as she has in previous meetings, that this issue was of critical importance to the environmental coalition.

The facilitator restated the question and asked the committee whether, assuming a party qualifies for the fee waiver under FOIA, should this be eligibility be transferred to the allocation of costs associated with access to the LSS? The NRC spokesperson responded that it would depend on what the workstation and user costs would be. The environmental coalition spokesperson explained that if they choose not to become an "LSS user party" during the pre-application period, they could conceivably obtain all the information that they are likely to need through FOIA requests. The costs associated with this approach would be limited to lawyer time and the cost of mailing a letter. The added costs associated with using the LSS include not only the expense of the hardware but the expense of gaining access to and using the system (i.e., computer time and telephone time). Several committee members recognized the importance of this issue not only to the parties participating in this negotiation, but for others who are not presently at the table but are likely to request party status both during the pre-application, as well as the post-application periods.

The facilitator suggested that there are three levels of response to this issue. The first level was primarily philosophical. Is the system superior if it does not allow for the participation of parties who would otherwise be able to participate? The next level was primarily legal. If such a system cannot be considered superior, is there a legal means to ensure equal access to the system? The third level was primarily financial. Can the party who is being asked to bear the costs associated with ensuring equal access afford it?

A representative of the State of Nevada stated that Section 111(a)(6) of the NWPA answers the philosophical question in that it implies that a system which denies access to parties who would otherwise be able to participate would not be permissible under

the NWPA. The spokesperson for EEI responded that it was impossible to respond to any of these questions until the committee had some information on costs. If these costs are diminimus then this is not likely to be a problem, whereas, if the costs are significant, it could potentially be a problem.

DOE representatives responded by saying that DOE would be willing to commit to the design of a system that would ensure all parties who can afford a standard "personal computer" equal access to the searchable full text portion of the LSS, but not access to any electronic images which might be a part of the LSS. Users who could gain access in this manner would only be charged for the telephone costs that are associated with access to the LSS. They explained that access to an electronic image is expensive because it requires an expensive workstation. Thus, the system could be designed to allow access to the searchable full text portion of the LSS (i.e., headers as well as documents) through relatively inexpensive personal computers that are standard equipment in most modern offices. Parties that could afford the more expensive workstation could have access to both the full text and electronic images, to the extent that images will be a part of the LSS. They added that the NRC intended to provide access to electronic images, as well as full text, through Public Document Rooms (PDRs), and that the user who gains access through a standard personal computer will be able to "down-load" or print out the text of documents that can be searched in full text.

In discussing this proposal, DOE clarified that they still did not know what the cost of ensuring such access would be. It was also clarified that there are two components to the costs associated with LSS access, other than hardware costs. One component is the equivalent of the "access fees" that are typically charged to the users of private data base management systems to cover the costs of computer time. The other component is the costs associated with the transmission of information over telephone lines. Both of these costs assume a centralized system. It was also explained that, under DOE's proposal, the user would be charged for the telephone transmission costs by whatever private carrier they subscribe to, rather than by the DOE or LSS Administrator.

In summarizing the discussion, the facilitator noted that the only remaining disagreement within the committee concerned whether the costs associated telephone transmission should be waived for parties who would otherwise qualify for a fee waiver under FOIA. He noted that DOE had agreed to waive the cost of computer time associated with access to the LSS and there did not seem to be disagreement with the assumption that the costs associated with the equipment required for access to the searchable full text portion of the LSS could be borne by the parties to this proceeding. (Authors note: Implied in this discussion was the premiss that access to an electronic image was not an essential component of access to the LSS by a party to the proceeding as long as the image, in some form, could be retrieved relatively expeditiously.)

Issue #20 - Public Access

This issue, which is also addressed in the November 19-20 NRC position paper, relates to the minimum requirements that should be established to ensure public access to the LSS.

A representative for the State of Nevada stated that item #1 in the NRC position paper seemed to imply that there will only be three PDRs, one each in DOE and NRC headquarters and one in Nevada. He suggested that there ought to be enough access points in Nevada so that all Nevada citizens have reasonable access to the LSS. In particular, he suggested that, at a minimum, PDRs be established in Reno, Las Vegas and Nye County. A representative of the NRC responded that the NRC had recently offered to establish three PDRs in Nevada and is awaiting a response from the State. The spokesperson for the environmental coalition stated that it was her understanding the corridor states are likely to request that NRC establish at least one PDR within their borders.

A representative of NRC explained that the agency had some flexibility in responding to requests for PDRs but that they would have to do so on the basis of some sort of reasonableness criteria. He stated that, in addition to the three PDRs in Nevada, and one each in DOE and NRC headquarters, NRC was currently anticipating establishing five more PDRs in each of NRC's regional offices.

Several committee members raised concerns about the possibility that there will be some sort of absolute limit on access to the LSS and the greater the number of PDR access points the more difficult it will be for the "parties" to gain access. It was agreed that procedures should be established or the system should be designed such that the parties will have user priority over the public given the possibility of limited access.

A representative of EEI suggested that one way to deal with the concerns raised by the representatives of the environmental coalition regarding costs is for the lead organization within that coalition to request that the NRC establish a PDR in some location in close proximity to their home office. Several members responded positively to this suggestion but it was agreed that this approach would not solve the larger problems of sufficient public access and the need to establish procedures for ensuring party access will take priority over public access.

ISSUE #27 - DISPUTES

The NRC position on this issue can be found in the November Position Paper. Before beginning the discussion of this issue, a representative of the NRC gave a presentation on the statistical profile of how cases currently go through NRC licensing process. He emphasized that a very large percentage of time is devoted to discovery, including summary depositions. He also explained that the NRC has had experience in 4-5 cases using computerized information management systems to handle dockets ranging from 5,000 - 30,000 pages. These systems included full text search capability, as well the transcripts of the proceedings being loaded into the system on a daily basis. He estimated that the use of these systems have cut back the overall time for the proceeding by a factor of 20.

In opening the discussion of the NRC position on this issue, a representative of the State of Nevada asked who the members of the NRC's proposed pre-application licensing boards (PLBs) will be. NRC representatives responded that the PLBs would probably consist of three members, as do the licensing boards (LBs) in normal licensing proceedings. These three members include one lawyer and two technical people with expertise in issues relevant to the proceeding. NRC representatives added that it is quite possible that several LBs with different sets of expertise will be established after docketing, in the case of the HLW repository proceeding, to address different segments of the case.

The spokesperson for the environmental coalition asked how parties have been consolidated in other large licensing cases (e.g., Shoreham). NRC responded that in the Shoreham case, 20 towns have been consolidated, as have 3 environmental groups.

A DOE representative asked whether it would be possible for an independent arbitrator to serve the same function that the NRC's proposed PLB would serve. NRC responded that the PLB would have the benefit of efficiency in that it would provide for continuity given that an NRC licensing body that will ultimately hear the case. Several committee members asked whether the NRC envisioned the members of the PLB being the same people who will serve as the members of the LB after docketing. The NRC responded that the individuals who will serve on the PLB may or may not be the same individuals that ultimately serve on the LB, but the LB nevertheless will need to become familiar with the case prior to docketing.

DOE representatives stated that there seemed to be unanimity within the committee about the need for a mechanism for resolving disputes during the pre-application period. However, he stated that DOE was concerned about this mechanism being an NRC body because of differing interpretations between DOE and NRC on privileges. NRC representatives responded that NRC decisions on privileges are consistent with federal rules. DOE asked whether the NRC's proposal envisioned any appeal rights to PLB decisions. NRC representatives explained that there is a jurisdictional problem during the pre-application period but, generally speaking, after docketing there are three levels of administrative appeals. These include to the LB first, secondly to an Administrative Appeals Board, and thirdly to the Commission. He also explained that 99% of appeals on privileges are handled through the use of a protective order. In most NRC licensing proceedings, private intervenors then have the right to appeal to federal court. However, in the case of the HLW repository licensing proceeding and disputes between DOE and NRC, it was his interpretation that the DOE would not have any rights of appeal to the federal court. Rather, he said DOE could appeal a final administrative decision made by the NRC to the Department of Justice or to the President to be resolved as a matter of federal policy, but DOE does not have any rights to a judicial appeal. Others posed examples where federal agency were in a dispute before a court.

DOE representatives then asked whether this meant that there would be no final decision on privileges until after docketing? Several members of the committee responded that it may be necessary for this committee to recommend to Congress that it grant NRC jurisdiction for purposes of establishing final

administrative decision making authority to resolve privilege disputes during pre-application period. Other members pointed out that parties requesting information from DOE or NRC could obtain jurisdiction in a federal court under FOIA. DOE representatives agreed that FOIA challenges could resolve the majority of privilege disputes that might be raised during the pre-application period. Representatives of EEI pointed out that the problem with FOIA is that it is not reciprocal (e.g., DOE cannot obtain information from Nevada because Nevada is not subject to FOIA).

NRC representatives suggested that the use of a Memorandum of Understanding (MOU) between DOE and NRC might be another vehicle that can be used to help resolve such disputes. This mechanism would establish an interagency agreement regarding DOE compliance with the decisions of the NRC's PLB during the pre-application period. If a dispute arose between DOE and Nevada, for example, and the PLB decided in Nevada's favor, the use of an MOU could help ensure DOE compliance.

A representative of the State of Nevada explained that Nevada would probably never use FOIA to obtain jurisdiction. Rather, Nevada believes that Section 117(a) of the NWPA provides them with a better and more direct remedy than FOIA. However, in order to resolve the issue of appeal rights, the Nevada representative stated that Nevada was willing to make a commitment as part of this negotiated rulemaking to be bound by the decision of the proposed PLB, subject to the exception that the Governor or Legislature may choose to exercise their "Notice of Disapproval" authority under the NWPA. The spokesperson for the environmental coalition stated that they would also willing to make such a commitment, but only if DOE agrees to meet the statutory deadlines for responding to requests for information established under FOIA when responding to a PLB decision on privileges. The NRC spokesperson stated that the NRC had no choice but to agree to make such a commitment.

DOE representatives responded that they had no problem with responding to requests within the deadlines established under FOIA, but they wanted assurances that if the PLB was to be an NRC body, rather than an independent arbitrator, that it would follow federal rules. NRC representatives stated that this would not be a problem and proposed that the decisions of the PLB have no precedential value concerning DOE privileges as a whole, but DOE still make a commitment as a part of this rulemaking, and through the use of an MOU, to be bound by the decisions of the PLB. DOE representatives indicated that they would consider this proposal.

The facilitator then summarized that DOE was concerned that it have some avenue of judicial appeal on the small number of PLB decisions (primarily involving privileged documents) on which it might disagree. He noted that two potential ways of addressing this concern through the courts were discussed where DOE chooses not to comply with PLB decisions regarding disclosure of documents: 1) the party requesting the document would file an FOIA request which would be immediately denied by DOE and the requesting party would immediately file suit in federal district court; 2) a party could file an action in the court of appeals pursuant to Section 117(a) of the NWPA seeking to enjoining further DOE action unless DOE makes the document available. The

facilitator noted that a third option which DOE indicated might be responsive to its concerns involved two additional levels of administrative appeals to PLB decisions (i.e., to an appeals board and to the Commission), and an understanding that the administrative decisions would not establish an precedent concerning DOE privileges as a whole. DOE indicated that it would consider these options and inform the committee as to which it would find most acceptable.

The facilitator then asked whether there were any issues other than privilege disputes that should be handled by the proposed PLB. Committee members agreed that the PLB, if established, should not only handle disputes over privileges, but disputes over the determination of relevance and whether a document should be entered into the LSS, and LSS compliance disputes.

A representative of the State of Nevada suggested that the rule should establish an independent auditor panel which is made up of representatives of all LSS user parties. The purpose of this panel would be to conduct audits to ensure compliance by all parties with the LSS rule. This panel would not make any decisions concerning compliance or settle any disputes concerning privileges or relevance. Rather, it would conduct audits and, on the basis of these audits, any member of the panel could petition the PLB to take action in the event of non-compliance. Thus, the PLB would make the ultimate decision concerning compliance and sanctions but it would not conduct any on-going audits.

The spokesperson for the environmental coalition questioned the usefulness of creating an additional level of bureaucracy for this purpose. Nevada representatives responded that it would help preserve the adversarial interests of the parties in ensuring LSS compliance. DOE representatives indicated that they would support this idea. The environmental spokesperson stated that she was concerned with the resource commitment that this would require. The facilitator suggested that an independent contractor could be used, but DOE and Nevada representatives indicated that they were both opposed to using an independent contractor for this purpose.

The facilitator then asked how the decisions of the PLB will be enforced. NRC representatives explained that the only sanction that they had considered during the pre-application period was to cut off the non-complying party's access to the LSS. NRC representatives explained that after the license application is submitted, NRC could refuse to establish a docket until all disputes concerning DOE compliance that were carried forward from the pre-application period were resolved. For compliance disputes with non-DOE parties, NRC could refuse to grant them party status until they came into compliance with the PLB decisions. All other post-application disputes would be handled in the same way that they currently are in NRC licensing proceedings. Finally, NRC representatives explained that NRC has the raw authority to compel the production of documents under the Atomic Energy Act, but this authority is very rarely used.

Determination of "Party" Status During the Pre-Application Period
(The issue of how to resolve disputes over the determination of "party" status during the pre-application period was discussed

by the committee. This discussion is presented slightly out of order in these minutes because it focused, in large part, on of the role of the proposed PLB in resolving such disputes.)

When asked by the facilitator what will it take to gain "party" status during the pre-application period, a representative of EEI stated that the same standards that will be applied to obtain intervenor status during the licensing proceeding should be applied in the determination of "party" status during the pre-application period. The NRC spokesperson explained that these standards utilize what is essentially a two-pronged test. First, one must show standing. Second, one must show that there are specific issues that are under contention. The NRC spokesperson stated that during the pre-application period, in order to obtain "party" status only a showing of standing would be required and that showing of contentions will not be required until after the application has been submitted.

The spokesperson for the environmental coalition asked how a simple showing of standing will prevent a very large number of interests from obtaining party status given the fact that the nuclear waste program is national in scope. The NRC spokesperson stated that the committee had not yet addressed the potential need for consolidating parties during the pre-application period. Given the committee's discussion of how to allocate the costs associated with access to the LSS (see above), he suggested that consolidation of parties might be a useful approach to minimizing these costs.

It was confirmed that the major difference between party and non-party status during the pre-application period was whether someone will be allowed to gain access to the LSS through a computer terminal at their location of choice or whether they will be forced to gain access through a PDR. The price of obtaining "party" status during this period is that the entity which obtains such status must comply with the rules concerning entry of discoverable documents into the LSS.

The spokesperson for the environmental coalition questioned whether the underlying incentives for environmental groups, corridor states and other potential parties was not to sign on as a "party" during the pre-application period, but rather to rely on the PDRs to gain access to the LSS and, when necessary, to submit FOIA requests. This approach would allow them the opportunity to obtain information and utilize the full text search capability of the LSS without having to submit their own documents into the LSS. The NRC responded that the principal sanction or disincentive against proceeding in this fashion is that this entity would be subject to the same condensed time schedule for discovery during the licensing period as would all other parties. That is, they would not be able to argue for more time for discovery if they had every opportunity to sign on as a "party" during the pre-application period.

A representative of EEI stated that a final determination of party status prior to the submission of the application will be essential to the success of the LSS. If the PLB denies party status and the aggrieved entity goes to court and wins, the time savings objective of the LSS is likely to be lost. The NRC spokesperson stated that it was not within the scope of this

rulemaking to make any substantive changes to NRC's rules concerning standing, just as it is not within the scope of this rulemaking to change the threshold for contentions.

DOE representatives suggested that the LSS rule should simply state that NRC's traditional rules for standing will be applied during the pre-application period. Furthermore, they suggested that any entities which submit an "eleventh hour" request for party status during the pre-application period should simply be consolidated with other parties. Nevada representatives suggested that the LSS rule should list who the "parties" are in the rule and the public comment and rulemaking process could be used to handle any challenges to this list, as well as separate petitions to the PLB by entities not included on the list. EEI representatives stated that EEI would support naming parties in the rule in order to avoid the delay that would be associated with a legal challenge to a PLB decision on standing that is made at some later date. EEI also suggested that the NRC find some way to put a docket number on the pre-application "proceeding" in order to create an avenue for legal challenges that could resolve issues related to standing that might not otherwise be possible to resolve until after the submission of the application.

NRC representatives proposed that this issue be addressed in a three-tiered fashion. First, using technical criteria related to the capabilities of the system, the rule itself would set a limit on both the minimum and maximum number slots available for obtaining "party" status during the pre-application period. The rule would also list those categories of interests which should clearly be considered as "parties" at the outset. Second, the rule would call for voluntary consolidation during the pre-application period if the number of requests for "party" status exceed the available slots. Such a voluntary approach to consolidation could give preference to those who signed up first (i.e., first come first served). Third, if the first two devices were not sufficient, NRC's traditional rules of standing could be applied in order to force consolidation or resolve issues of standing during the pre-application period. The intent is for the first two approaches to provide greater flexibility than is likely to be available under NRC's traditional rules of standing, which will be the standards that will be applied after the application has been submitted.

EEI representatives expressed the concern that this more flexible approach would allow them to participate during pre-application at some considerable expense and still not have their standing in the licensing proceeding resolved until after the application is submitted. The NRC spokesperson indicated that it was his opinion that EEI will not have standing in the proceeding and that EEI's participation as an "LSS user party" during the pre-application phase will be pursued at their own risk.

LSS ADMINISTRATION

The final set of issues that were addressed at this meeting were lumped together under the heading "LSS Administration." The first subissue that was discussed by the committee under this heading can be found in the November NRC Position Paper listed as

issue #14 -- Procedures.

Issue #14 - Procedures

The following captures the committee's discussion of this issue as it corresponds to the numbering used in the NRC's November Position Paper.

- o Item 1 - A representative of the State of Nevada suggested that this item include the requirement that the originator of the document should be the person who submits the document to the LSS and informs the LSS as to what the document is. NRC and DOE representatives responded that this might be possible but is probably an inappropriate requirement for the creation of bibliographic headers since this can be done untrained coders and it is unreasonable to assume that agency decisionmakers and high priced lawyers should have to do it. In the case of subject term headers, these would have to be done by trained professionals who are familiar with the keyword dictionary in order for it to be done efficiently. Nevada representatives explained that they were primarily concerned that abstracts be created for data that cannot be placed into the LSS in searchable full text (i.e., raw data) by the originator of that data. DOE representatives responded that this is standard procedure for most scientific papers, and that they did not foresee a problem except in the case where the originator of the data is no longer employed with the agency or the contractor that generated the data.
- o Item 3 - It was confirmed that the "independent monitoring" concept referred to in this item was essentially the same as the independent auditing panel discussed by the committee under issue #27 (see above). The NRC stated that they preferred that the rule simply state that the parties will submit themselves to an audit and that the precise procedures and mechanisms used to conduct such audits be left to the PLB because there will be such a vast difference in the level of effort that would be required to audit DOE versus an environmental group, for example. Several parties stated that they preferred an informal approach to compliance auditing. EEI stated that the NRC only knows one way to conduct an audit and it may be much more than is needed in the case of LSS compliance audits. EEI further suggested that the independent auditing panel made up of representatives of LSS user parties not only be used to conduct informal audits, but to make suggestions to whomever is appropriate on how to refine and improve the system.
- o Item 4 - DOE representatives asked whether the types of sanctions referred to in this item were any different than those discussed under issue #27 (see above). NRC responded that no other sanctions beyond those already

discussed were being considered. DOE asked how cutting off a parties access to the LSS will be possible if access will be possible through PDRs. NRC explained that cutting off access not only means cutting off access as a "party" (with higher priority over public users), but cutting off access to the PLB to resolve disputes over privileges, LSS compliance, etc.

Issue #24 - Interim LSS

The committee agreed that the NRC position on this issue (which can be found in the November Position Paper) has been made moot by the tentative agreements reached at this meeting. In particular, the recommendations that will be made by the technical workgroup on formats for full text entry and bibliographic headers will address the most important elements of this issue.

Representatives of the State of Nevada asked whether it would be possible for documents which they currently had on hand to be loaded into an "interim LSS." NRC representatives responded that this could be done but the problem is figuring out who should pay for it. DOE representatives stated that Nevada's documents should be prioritized and entered as part of the 4 million pages that DOE intends to enter into the LSS by 1990.

Issue #19 - LSS Administration

The next issue addressed by the committee is listed as "LSS Administration" in the November Position Paper. NRC's position on this issue is that "NRC should be responsible for the administration of the LSS, with full funding from the Nuclear Waste Fund established by the NWPA."

DOE representatives asked whether the NRC's position on this issue referred just to the docket that will be created for the licensing proceeding or for the entire LSS. NRC responded that their position referred to the entire LSS because it was not really possible to separate those portions of the LSS that are the docket from those that are not. When asked who in the NRC administers the docket in licensing proceedings, NRC representatives stated that the Secretary's Office performed this function.

The facilitator asked whether anyone could provide a clear definition for the term "LSS administration." NRC responded that it is not possible to provide a clear definition for the term until the general parameters for the design of the system are known. In particular, if the system is designed as a decentralized system, the requirements for LSS administration will be different than if the system is designed as a centralized system. Nevertheless, some of the administrative functions that were identified by the committee, based on the committee's previous discussions, include:

- o receiving documents, bibliographic headers, and other types of headers (if used) from the parties and entering them into the LSS;
- o administering the "verification," "corrections," and "authentication" procedures set forth in the rule;

- o ensuring the security of protected documents; and
- o creating electronic images of documents.

The NRC spokesperson stated that the considerations which led to their position include the fundamental requirement that the NRC maintain control over the docket for the proceeding. Secondly, the parties do not want the other parties to have access to documents for which a privilege has been asserted until the adjudicator decides on how those documents will be handled. Thirdly, NRC serving as the LSS administrator will allow them to maintain security for classified documents and documents placed under protective orders.

DOE representatives stated that the LSS is more than the docket and the subset of documents that will be subject to privilege determinations by the pre-application licensing board and the licensing boards after the application has been submitted. They estimated that the total number of documents or pages that will constitute the LSS, particularly during the pre-application period, will be orders of magnitude greater than the docket and documents that are privileged or protected. They asked whether NRC would find it acceptable to use a third party contractor to play the role of "LSS administrator."

NRC responded that this would be acceptable as long as that contractor was subject to NRC control (i.e., the contractor would be an NRC contractor rather than a DOE contractor). The NRC spokesperson further explained that the NRC did not have to own the computer equipment which will be used to run the LSS in order to control the data base. As an example, he explained that the LSS could potentially be housed in an existing "federal computer center" and the NRC could still serve as the LSS administrator. Although he was not certain of this, he suggested that one or more of the existing federal computer centers may already have the equipment that would be necessary to run the LSS. The NRC spokesperson reiterated that LSS administration refers primarily to functions and tasks that are related to data control and integrity. How these tasks are accomplished depends, in large part, on the design of the system.

DOE representatives explained that the vast majority of documents that will be entered into the LSS will be DOE documents and that their internal records management system will, therefore, serve as the primary point of document entry. They stated that their requirements concerning "LSS administration" are that DOE maintain control of the loading, indexing and other tasks related to its internal records management system.

Several parties pointed out that this requirement is not inconsistent with the NRC serving as the LSS administrator in that all parties will have the same responsibility that DOE has in terms of preparing their documents for entry into the LSS. If DOE decides that it would benefit from establishing an internal records management system that goes beyond the minimum LSS requirements for document entry, several committee members indicated that this should not be a problem as long as it does not result in DOE becoming the LSS administrator.

A representative from the Office of Management and Budget (OMB) asked the committee for permission to comment. She reminded committee members that Waste Fund money is part of the federal budget and is appropriated by Congress in the same way that all federal money is appropriated. She suggested that the costs of the LSS must therefore be justifiable and that the committee should keep this in mind when making decisions about LSS administration issues.

The NRC spokesperson stated that he was not proposing that each agency (i.e., NRC and DOE) go out and buy their own mainframe computers. He reiterated his suggestion for using an existing federal computer center for the LSS. He also stated that the costs of the LSS should not be confused with the costs of DOE's internal records management system needs. He explained that the NRC has its own internal records management needs that it has to justify separate from the costs of the LSS and that the DOE should be doing the same.

A representative of the State of Nevada stated that the issue of who should administer the LSS was of critical importance to Nevada. He explained that Nevada was being asked to give up its traditional discovery rights in exchange for the timesavings that will result from the use of the LSS. He stated that Nevada is simply not willing to do this if it is required to turn over those rights to its adversary (i.e., DOE). He stated that Nevada would be willing to turn those rights over to the NRC or a third party, but it was unacceptable for DOE to serve as the LSS administrator.

When asked what was meant by his statement that it was unacceptable to Nevada that the DOE serve as the system administrator, Nevada's representative explained that Nevada would not be willing to send their documents to DOE for them to enter into a DOE computer. In further discussions, he explained that there is both a substantive problem concerning who actually controls the data base, as well as a perceptual problem with where the computer that is called the LSS is actually housed. He indicated that it would be unacceptable for DOE employees or contractors to serve as the LSS administrator and for the computer equipment that constitutes the LSS to be housed in a DOE building.

DOE representatives stated that they did not have a problem with the LSS being housed outside of a DOE building and being controlled by whomever was named as the LSS administrator, as long as DOE maintained control over that portion of the LSS that constituted its internal records management system. Several members of the committee suggested that this was technically possible but that it would probably require that the LSS be housed in a federal computer center in the Washington, D.C. area.

The committee then discussed the general goals with respect to the administrative function of controlling the integrity of the data base. The committee agreed that the parties should be responsible for preparing documents for entry into the LSS but once documents are placed in the LSS no party should have the ability to change the document after the initial period for correcting faulty entries has elapsed.

The facilitator then asked the committee to focus on the issue of who should serve as the LSS administrator. The

committee agreed that none of the parties should serve in this role. It was clarified that the term "parties" was being used here to refer not only to DOE, the State of Nevada, environmental groups, and other entities that may gain party status in the pre- and post application HLW repository licensing proceeding, but that component of the NRC that will be litigating the case as well. Specifically, DOE representatives stated that it was unacceptable to them for the NRC legal and technical staff who will be reviewing and preparing documents that will be entered into the LSS to serve as the LSS administrator.

DOE representatives were asked whether DOE would find it acceptable for the component of the NRC that will serve as the adjudicator and the ultimate decisionmaker in the licensing proceeding (i.e., the licensing boards and the Commission) to serve as the LSS administrator (or to let a contract for purposes of LSS administration). DOE representatives responded that they were not yet able to commit, even in a tentative fashion, to who should serve as the LSS administrator, but emphasized that they were able to agree on who should not serve as the LSS administrator (as per the discussion captured above). The DOE spokesperson emphasized that this represented a profound shift in DOE's position and, as are all agreements reached by the committee until they are made final, this was a tentative commitment.

Issue #17 - Security

In reviewing the NRC position on this issue, which can be found in the March 10 memorandum (see Attachment 9), the committee agreed that this issue depends to such a large extent on who serves as the LSS administrator that the committee should address it after the issue of LSS administration has bee fully resolved.

TECHNICAL WORK GROUP MEETING

The facilitator announced that the technical workgroup will hold its first meeting to develop recommendations on the formats that should be used for document entry and bibliographic headers on April 4, 1988 at the offices of DOE's contractor, SAIC.

PUBLIC COMMENT

The facilitator then asked if any members of the public who were in attendance would like to comment on the committee's discussions. With no member of the public indicating their desire to do so, the meeting was adjourned.

ATTACHMENT 1

LIST OF ATTENDEES

Committee Members

Mike L. Baughman
Nevada Local Govt. Group

Dennis Bechtel
Nevada Local Govt. Group

Steve Bradhurst
Nevada Local Govt. Group

Chip Cameron
NRC

Barbara Cerny
DOE/HQ

David R. Cross
EEI/UNWMG

Tim Davenport
State of Nevada

Stan Echols
DOE/HQ

Dixon B. Hoyle
U.S. Council for Energy
Awareness

Melinda Kassen
EDR

Steven P. Kraft
EEI/UNWMG

Bob Loux
State of Nevada

Malachy R. Murphy
State of Nevada

William J. Olmstead
NRC

David E. Ortman
NW FOE

Jerome Saltzman
DOE/HQ

Jay Silberg
EEI/UNWMG

Ralph Stein
DOE/HQ

Harry W. Swainston
State of Nevada

Members of the Public

R. Ackerly
Jordan Assoc.

Phil Altomare
U.S. NRC

Don Bayer
LCB State of Nevada

Avi Bender
U.S. NRC

B. P. Cotter
U.S. NRC

Judy Foremaster
Caliente, NV

Donnie H. Grimley
U.S. NRC

John Hoyle
U.S. NRC

Christine Kohl
U.S. NRC

Dean Kunihiro
U.S. NRC, Region V

Robert McPherson
Weston

C. K. Mertz
Mountain West

A.B. Muller
SAIC

Florence J. Phillips
Corridor Govts. Planning
Group

W. Richard Pierce
SAIC

D. L. Prestemon
U.S. NRC

Betsy Shelburne
U.S. NRC

Charles Smith
DOE/OCRWM

Stephen Spector
CNWRA

Joseph Strolin
State of Nevada

Stuart A. Treby
U.S. NRC

Glenn Van Roekel
Caliente, NV

Rosetta Virgilio
U.S. NRC

ATTACHMENTS 2-9

(Since copies of these attachments were provided to the committee members at the March 22-24, 1988 meeting they have not been included with the draft minutes. These attachments will, however, be included with the final minutes that will be filed in the NRC Public document room, after the committee has reviewed and approved the draft minutes. These attachments include:

- ✓ 2) Letters requesting participation or referring to participation matters from: the National Congress of American Indians; the Corridor Governments Planning Group; the National Conference of State Legislatures; and the Nevada Nuclear Task Force, Inc.
- ✓ 3) A memorandum from the Edison Electric Institute/Utility Nuclear Waste Management Group to the committee dated March 14, 1988.
- 4) The report from the committee's technical work group entitled "Information Retrieval Systems: A Tutorial."
- 5) Proposed consensus statements prepared by the facilitators following the December meeting.

- 6) The State of Nevada's list of "includables" and "excludables" for entry into the LSS.
- 7) The coalition of national environmental group's list of "includables" and "excludables" for entry into the LSS.
- 8) The Department of Energy's list of "includables" and "excludables" for entry into the LSS.
- 9) A memorandum dated March 10, 1988 (and its attachments) from Chip Cameron, NRC, to the members of the committee.

ATTACHMENT 2

STATE OF COLORADO

EXECUTIVE CHAMBERS
136 State Capitol
Denver, Colorado 80203-1792
Phone (303) 866-2471



Roy Romer
Governor

January 21, 1988

Mr. Samuel Chilk
Secretary
U.S. Nuclear Regulatory Commission
1717 H Street, N.W., 11th Floor
Washington, D.C. 20555

Dear Mr. Chilk:

A coalition of state and local governments has recently formed the Corridor Government Planning Group to assess and address issues surrounding the transportation of high-level waste to the repository mandated by the Nuclear Waste Policy Act and its recent amendments. The group currently is comprised of representatives from the states of Colorado, Nebraska, New Mexico and Wyoming, and a representative from Denver. With the recent NWPA amendments, membership is expected to increase dramatically.

I request participation by the group in the commission's High-Level Waste Licensing Support System Advisory Committee. I understand New Mexico Governor Garrey Curruthers has sent you a similar request. As noted by the commission in its notice of intent to form an advisory committee, governments potentially affected by the transportation of high-level waste have an interest in the rule-making. Participation by this group in the advisory committee will aid the commission in its ultimate goal: adoption of a rule that will not be challenged. If the corridor group is permitted to participate, it will appoint a spokesperson with sufficient authority to represent the views of its members.

Additionally, we request that the commission's negotiator arrange for travel for the group's spokesperson as has been done for other parties. At a time when many state and local governments are faced with deficits and budget cuts, governments are unable to incur additional costs for a national program.

Mr. Samuel Chilk
January 21, 1988
Page Two

The group views its participation in the advisory committee as essential to protect member interests and essential to the commission's ultimate goal.

I look forward to an early, positive response.

Sincerely,



Roy Romer
Governor

RR:tjh

cc: Professor Howard S. Bellman
Mr. Tim Mealey, Conservation Foundation ✓
Francis X. Cameron, Esq., Nuclear Regulatory Commission
William Olmstead, Esq., Nuclear Regulatory Commission

NATIONAL CONGRESS OF AMERICAN INDIANS

Est. 1944

February 22, 1988

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Hillary Waukau

Menominee Tribe

MUSKOGEE AREA

Harry F. Gilmore

Quapaw Tribe

NORTHEASTERN AREA

Loretta Crane

Seneca Nation

PHOENIX AREA

Harnet Toro

Tohono O'odham Nation

PORTLAND AREA

Joe De La Cruz

Quinault Nation

SACRAMENTO AREA

Dale Rising

Hoopa Valley Tribe

SOUTHEASTERN AREA

Billy Cypress

Miccosukee Tribe

Mr. Lando W. Zech, Jr.
Secretary of the Commission
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

RE: Request for Continued Tribal
Representation on the NRC Advisory
Committee for Negotiated Rulemaking

BY HAND

Dear Secretary Zech:

It has been a year since the National Congress of American Indians (NCAI) wrote to the Nuclear Regulatory Commission (NRC) about the formation of the Advisory Committee to develop recommendations for the revision of the NRC discovery rules and selected other rules of practice in 10 CFR Part 2. In our comments, NCAI commended NRC on its decision to form the Advisory Committee and requested representation on the Committee. Subsequently, several tribes and NCAI gained Committee representation and participated in the meetings.

We are writing you now to protest the elimination of tribal participation from this process, including that of NCAI as a member of the Committee. It is important that the Committee continue to address tribal concerns in the development of this proposed rule. In our opinion, the redirection of the high-level repository program does not warrant this disregard. NRC, as we have pointed out before, has obligations regarding tribal interests which go beyond the Nuclear Waste Policy Act itself, and still has obligations to tribes in relation to that Act, the 1987 Amendments notwithstanding.

There are still too many unanswered questions about the repository, the Monitored Retrievable Storage and transportation matters to eliminate the participation of the tribes. A second repository site has not been ruled out and the Yucca Mountain site may yet prove to be an inadequate site. NCAI has been, and continues to be, in contact with tribes concerned about the siting and transportation of high-level radioactive waste. This extends to those tribes within Nevada's borders, including the Moapa Tribe, the Las Vegas Colony and the Western Shoshone Nation and its constituent Tribes and Bands, as well as those tribes outside Nevada which may be impacted by the transportation of radioactive waste.

February 22, 1987

Page Two

We are offended that the Commission has decided to continue participation of the special interest groups and has added the participation of local governments, but has terminated all tribal participation. We have been told by reputable sources that the Commission even assisted the public interest groups in identifying and securing outside funding to participate in this process. Under the current scheme, the following would have representation on the Committee: the State of Nevada; a coalition of Nevada local governments; Sierra Club, Environmental Defense Fund and Friends of the Earth (jointly), representing a coalition of tax-exempt environmental groups; Edison Electric Institute and the Utility Nuclear Waste Management Group (jointly); the Department of Energy and the NRC.

This letter is NCAI's formal petition to remain on the NRC Advisory Committee. NCAI, established in 1944, is the oldest and largest national membership organization serving the needs of Indian and Native governments and individuals. NCAI has established its expertise and credibility in dealing with high-level radioactive waste issues as they pertain to the tribal governments. For over four years, NCAI has coordinated the National Indian Nuclear Waste Policy Committee comprised of delegates of all tribal governments concerned about the issues of siting and transporting high-level nuclear waste.

While the 1987 Amendments to the NWPA have redirected the program, and while the potential is remote that a site other than Yucca Mountain will be needed for the first repository, tribal interests will continue to be pursued until characterization is completed and the site licensed. In the event that another site must be characterized, it is important that tribal concerns must be addressed now. There is also the real possibility that tribes in Nevada or California could intervene in the repository licensing process.

NCAI has already experienced an increase in communication from those tribes near the Yucca Mountain site and along known projected transportation routes. We expect the requests for information and assistance to continue as the characterization of the Yucca Mountain site proceeds. This includes communication from 1) tribes which have sought affected status and were denied; 2) tribes which may be eligible to petition for affected status, but have chosen not to do so at this time; and 3) other tribes which are near the site.

The NRC, as an agent of the trustee United States, has a fiduciary obligation to protect the political integrity and property interests of tribal governments. This responsibility is contained in treaties and federal Indian policy of longstanding, and has been articulated by the Supreme Court and Congress. All too often, federal agencies fail to recognize this responsibility. We urge NRC to protect the tribal interests and to re-establish tribal representation on the Advisory Committee. NCAI recommends also that NRC notify the tribes within Nevada's borders about the Advisory Committee and allow for their participation, upon their request. The State of Nevada cannot represent the sovereign tribal interests on this Committee.

Letter - Mr. Lando W. Zech, Jr., NRC

February 2, 1987

Page Two

Thank you for your consideration of this request. Please contact me, or NCAI staff members Gail Chehak or Robert Holden, if you have any questions. We look forward to an expeditious response prior to the March 22 meeting of the Advisory Committee.

Sincerely,



Suzan Shown Harjo
Executive Director

cc: Howard S. Bellman, The Conservation Foundation
Francis X. Cameron, Office of Legal Counsel, NRC



National Conference of State Legislatures

1050 17th Street
Suite 2100
Denver, Colorado 80265
303/623-7800

President Ted Strickland
President of the Senate
Colorado

William T. Pound
Executive Director

February 2, 1988

Mr. William Olmstead
Assistant General Counsel
Office of the General Counsel
Mail Stop MMBB-9604
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Olmstead:

NCSL realizes that the Nuclear Regulatory Commission will be revising the High-Level Waste Licensing Support System Advisory Committee as a result of the Nuclear Waste Policy Amendments Act of 1987. NCSL's previous role in the Committee was as a second-tier member representing the interests and concerns of the potential second repository states.

NCSL believes that the work of the Committee is of continuing importance, even though Yucca Mountain, Nevada, has been selected by Congress to be the only repository candidate site. Now that a site has been selected, the remaining contiguous states will transfer their interests and concerns to the possibility of being a corridor state on a shipping route to the repository.

NCSL believes that it has two priorities concerning the negotiated rule-making: (1) to inform all of the state legislatures, but especially the Nevada legislature, as to the proceedings; and (2) to be a resource to potential corridor states as issues related to their participation are crystallized. Should this be amenable to you, Cheryl Runyon would continue to represent NCSL at these Committee meetings.

If you have any questions, please call me at 303/623-7800.

Sincerely,

T. Dwight Connor
Program Director
Energy and Natural Resources

TDC/lws

cc: Francis X. Cameron/

NEVADA NUCLEAR WASTE TASK FORCE, INC.
4550 W. Oakey Blvd., Suite 111
Las Vegas, Nevada 89102
(702) 878-1885
FAX (702) 878-0832

February 22, 1988

Mr. Samuel Chilik, Secretary
Nuclear Regulatory Commission
1717 H Street, N. W.
11th Floor
Washington, D. C. 20555

Dear Mr. Chilik:

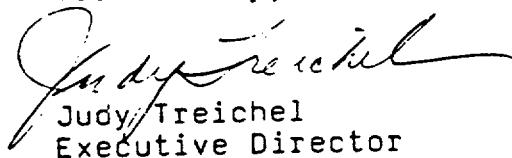
Recently Howard Bellman, working with the HLW Licensing Support System Advisory Committee, sent me a package of material containing the minutes of previous meetings and other related information. He explained the work of the committee to me and made arrangements with Timothy Mealey for us to have the opportunity to join the committee.

The Nevada Nuclear Waste Task Force began work on the 9th of February to fulfill a contract awarded by the State of Nevada Nuclear Projects Office. Our primary work at this time is the establishment of a library and resource file with material concerning the management of high-level nuclear waste and the DOE program.

It is the feeling of the Board of Trustees of the Task Force that we will not join the LSS Advisory Committee at this time. We would however, like to reserve the right to join or be actively involved at a future time.

It would be much appreciated if you would put us on your mailing list and send minutes of the committee meetings, agendas and any other related materials.

Yours truly,



Judy Treichel
Executive Director

CC: State of Nevada
Nuclear Waste Project Office

Howard Bellman
Francis X. Cameron
Timothy Mealey

ATTACHMENT 3

SHAW, PITTMAN, POTTS & TROWBRIDGE

A PARTNERSHIP INCLUDING PROFESSIONAL CORPORATIONS

2300 N STREET, N. W.
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TELECOPIER
(202) 223-3760 & 223-3761

JAY E. SILBERG, P.C.

March 14, 1988

To: HLW Licensing Support System
Advisory Committee Members

Dear Colleague:

The LSS negotiated rulemaking process is moving rapidly towards its conclusion. Yet, there has been little, if any, discussion as to the changes that would be made to NRC's Rules of Practice to reflect the information retrieval system that most of the parties appear to favor. For example, it is not at all clear what other changes to current NRC discovery rules will accompany the inclusion of the LSS. There has also been no discussion of whether other changes to the Rules of Practice are needed to meet the statutory timetable for repository licensing.

EEI/UNWMG believe that the LSS, if implemented without other rule changes, will result in little if any change in the duration of the licensing process. It seems clear to us that significant changes to NRC rules, in addition to those incorporating an LSS, will be required if any progress is to be made towards meeting the statutory timetable.

Throughout the negotiated rulemaking, the parties have been told that "everything is on the table." EEI/UNWMG therefore submit the enclosed memorandum outlining the changes in NRC Rules of Practice that we believe should accompany any LSS system. EEI/UNWMG respectfully request that this topic be discussed at the earliest practical time.

Sincerely,



Jay E. Silberg
Counsel for Edison Electric Institute/
Utility Nuclear Waste Management Group

JES: dj
Enclosure

EEI/UNWMG POSITION ON LSS AND
CHANGES TO NRC RULES OF PRACTICE

I. Introduction

The NRC initiated the on-going negotiated rulemaking "to develop recommendations for revision of the Commission's discovery rules and selected other rules of practice in 10 CFR Part 2, related to the adjudicatory proceeding for the issuance of a license for a geologic repository for the disposal of high-level [waste] (HLW)." 51 Fed. Reg. 45338 (December 18, 1986). NRC justified the rulemaking based primarily on the need to meet the licensing timetable established by the Nuclear Waste Policy Act. Under S114(d)(2) of the Act, NRC must issue a final decision on a construction authorization for the repository within three years after DOE submits the license application. (The statute would allow a one year extension for good cause).

In its notice of intent to form the negotiated rulemaking advisory committee, the Commission stated that measures must be taken to streamline the NRC review process if the statutory deadline is to be met. 51 Fed. Reg. at 45339. One of these measures was the development of an electronic information management system, generally referred to as the licensing support system (LSS). According to the Commission:

If the Commission is to reach its construction authorization decision within the allotted time-frame, it will be necessary to facilitate the discovery process, as well as to reduce the delay normally associated with the physical service of documents. Id.

To date, the LSS negotiated rulemaking has focused entirely on the operational aspects of the LSS as a information/document storage and retrieval system. Little if anything has been said about how the LSS would fit into the NRC's rules of practice for licensing of the repository or what specific changes would be made to the rules of practice so that NRC will be able to meet the licensing timetable of §114(d)(2). In addition, several parties, including EEI/UNWMG, have repeatedly requested a cost/benefit analysis for the LSS. For any party to be able to assess whether the LSS is worthwhile, it is necessary to know what it will cost and the benefits (whether in terms of a shorter licensing process for the repository or otherwise) which it will provide.

The purpose of this memorandum is to focus on the nature and scope of licensing benefits to be derived from development and implementation of the LSS. EEI/UNWMG believe that the LSS, if implemented without other significant changes to NRC's rules of practice will result in little, if any, shortening of the licensing process. Indeed, it may result in longer overall discovery and longer hearings. EEI/UNWMG also believe that the licensing duration for the first repository, absent other significant modifications to the NRC's rules of practice, is likely to be in the range of five to nine years. Whatever savings NRC might believe will occur from establishing the LSS

will not result in a licensing duration even approaching the schedule contemplated by §114(d)(2). As a result, EEI/UNWMG propose that the NRC adopt additional procedural modifications which will allow the process to meet its statutory timetable.

II. Duration of Repository Licensing Proceeding

The NRC proceeding on DOE's application for construction authorization will likely be among the most hotly contested and complicated proceedings that NRC has ever faced. Unlike the reactor licensing proceedings which NRC has experienced, the repository hearing will be unique--the first (and perhaps only) one of its kind. It will involve technical issues never before litigated by NRC staff and licensing boards. It will bring together major opposing parties (i.e., DOE and Nevada) with, for all practical purposes, unlimited technical and financial resources. It will certainly attract a very large number of other parties. The regulations and regulatory guidance for the repository will not have previously been explored in the adjudicatory arena. Those opposing the application will have had more than a decade prior to submittal of the license application in which to identify issues, retain experts, and undertake the most elaborate preparations aimed at defeating DOE's application. It therefore appears that streamlining the licensing process is reasonable.

Obviously, it is very difficult to predict the total duration of the construction authorization proceeding. There are almost an infinite number of variations in which the proceeding can unfold. Given the characterizations identified in the preceding paragraph, however, we would estimate that the minimum duration would be:

Notice of opportunity for hearing to licensing board orders defining contentions	12 months
Discovery	12 months
Summary disposition motions and decisions	6 months
Preparation of testimony through evidentiary hearings	12 months
Proposed findings of fact and licensing board decision	12 months
Initial internal appeals	12 months

While some of these time periods exceed the nominal durations set forth in 10 CFR Part 2, the unique nature of the proceeding makes these estimates more appropriate to use than the Part 2 time periods. For example, a straightforward reactor proceeding might succeed in moving from notice of opportunity for hearing to contentions definition in perhaps 5 months.^{1/} Since it would not

^{1/} For example, notice of opportunity for hearing to intervention petition, 1 month; intervention petition to prehearing order, 1 month; prehearing order to special

(Continued Next Page)

be surprising if the number of contentions filed in the construction authorization proceeding would far exceed those filed in the most complicated reactor licensing proceeding, substantial additional time will certainly be needed by the parties to brief and argue these contentions, by the licensing board to admit or reject them, and by the appeals board or Commission to resolve the inevitable appeals.

Similarly, the 12 months estimated for discovery, even with the LSS, is probably a conservative figure absent significant changes to NRC regulations. The NRC has to date indicated that the LSS would only eliminate "first round discovery requests and accompanying search times by the party from whom the records were requested." 51 Fed. Reg. at 45339. Whether this is meant to cover both requests for production of documents and interrogatories or just the former, it would still leave an enormous amount of discovery opportunities available (e.g., additional rounds of interrogatories, depositions, admissions). An LSS, giving full text access to every document generated in the waste

(Continued)

prehearing conference, 2 months; special prehearing conference to special perhearing conference order, 1 month. Even a relatively simple proceeding on a proposed amendment to a reactor's technical specifications can take this long. See Cleveland Electric Illuminating Co. (Perry Nuclear Power Plant), LBP-88-____, "Memorandum and Order (Scheduling of a Prehearing Conference)" (March 1, 1988)(4 months from notice of hearing to special prehearing conference).

program, rather than shortening discovery, could also give parties the opportunity for generating even greater amounts of discovery. For example, it would make deposition preparation much easier by identifying every report that the deponent had written for DOE and every other document in the program on the same topic.

For a number of reasons, a five year duration for the construction authorization hearing is very optimistic. Many recent reactor licensing proceedings lasted that long notwithstanding the absence of intervenors comparable in resources to those which will most likely be participating in the repository hearing.^{2/} It is more likely that the hearing will take as long as the longest reactor proceedings,^{3/} not as short as the average ones. Much of the delay in any proceeding can

-
- 2/ For example, Cleveland Electric Illuminating Company (Perry Nuclear Power Plant), Docket Nos. 50-440, 50-441, 81 months from notice of opportunity for hearing to NRC decision authorizing full power license; Louisiana Power & Light Co. (Waterford Steam Electric Station, Unit 3), Docket No. 50-382, 53 months; Carolina Power & Light Co. (Shearon Harris Nuclear Power Plant, Unit No. 1), Docket No. 50-400, 51 months.
 - 3/ For example, GPU Nuclear Corp. (Three Mile Island Nuclear Station, Unit 1), Docket No. 50-289 (Restart proceeding), 78 months; Pacific Gas & Electric Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2), Docket Nos. 50-275 and 50-323, 129 months; Public Service Co. of New Hampshire (Seabrook Station), Docket No. 50-443, 77 months so far; Long Island Lighting Co. (Shoreham Nuclear Power Station), Docket No. 50-322, 144 months so far.

come from the addition of late contentions. The duration estimated above does not explicitly contemplate any delays due to late contentions, yet the repository program is much more likely to result in such issues than are the reactor licensing cases, if only because of the unique nature of the proceeding. A nominal duration of seven years is probably a much more realistic estimate.

For all the above reasons, it would appear implausible that the LSS, by itself, will allow NRC to meet its statutory timetable. Even if LSS were to save six months, a conclusion that is easy to question, the licensing proceeding would not remotely approach the three year statutory timetable. As a result, the substantial cost of such a system becomes more and more difficult to justify. For instance, it would be easier to accept a \$50 million LSS system which would shorten a construction authorization proceeding from 3½ years to 3 years than one which saves 6 months in a proceeding which could otherwise last for 7 years.

In order for EEI/UNWMG and the electricity consumer to be able to accept the costs of a LSS system, we believe that the NRC must make other significant changes to the procedures which the repository licensing hearing will follow.

III. Proposed Changes to NRC Rules of Practice to Accompany LSS

NRC must make modifications to its rules of practice that will go beyond the creation of an LSS if it is to have any hope of ever approaching the three year statutory timetable of S114(d)(2) of the Nuclear Waste Policy Act. Over the years, numerous studies have examined the NRC licensing process and made recommendations to improve it.^{4/} Some of these recommendations, if applied to repository licensing, could result in significant savings of time without dramatic changes in the nature of the proceeding. EEI/UNWMG recommend that such modifications be included in the consensus rulemaking. Only if these changes are linked to the LSS is there any hope of meeting Congress' goal. And only if there are more significant time savings than are achievable by the LSS alone are the costs of the LSS justifiable.

A. Contentions: Current NRC rules allow the admission of contentions on a showing of "basis" and "specificity." In practice, NRC adjudicatory decisions have allowed the admission of contentions with no foundation and no

^{4/} See, e.g., Tourtellotte, Nuclear Licensing Litigation: Come On In, the Quagmire is Fine, 33 Admin. L. Rev. 367 (1981); Cotter, Nuclear Licensing: Innovation Through Evolution in Administration Hearings, 34 Admin. L. Rev. 497 (1982); Draft Report of the Regulatory Reform Task Force, SECY-82-447 (November 3, 1982); 49 Fed. Reg. 14698 (1984); 51 Fed. Reg. 24365 (1986); H.R. 1029 and 5448, 99th Cong. 1st sess. (1985).

semblance of factual support. See, e.g., Houston Lighting and Power Co. (Allens Creek Nuclear Generating Station, Unit 1) ALAB-590, 11 NRC 542 (1980); Mississippi Power & Light Co. (Grand Gulf Nuclear Station, Units 1 and 2), ALAB-130, 6 AEC 423 (1973).

By requiring that a party demonstrate that there is a genuine and substantial issue of disputed fact requiring a hearing for its resolution, many frivolous issues could be excluded at the start, thus reducing the overall duration of the proceeding.

B. Late Contentions: Current NRC practice is overly liberal in admitting contentions filed after the period for initial definition of contentions. Although NRC regulations establish a series of tests to be met for the admission of late contentions, 10 CFR 52.714(a), these tests are both unnecessarily weak and liberally applied. Often, an intervenor is required to show little more than that he had recently become aware of "new" information concerning the late contention. Since there is always going to be "new" information, especially with respect to a unique effort like the HLW repository, the current NRC standard may well cause a never-ending stream of "late" contentions. A tighter

standard is both necessary and appropriate. Such a standard could be an evidentiary showing that: (1) there is significant new information which would require a modification in facility design/construction to protect the public health and safety (and the common defense and security); and (2) that such modification would substantially enhance such protection by improving overall safety.

- C. Discovery: If the LSS is intended to substitute for first round production of documents (or even all first round discovery), it is unlikely that any time will be saved in the overall licensing process. While the rules do set forth time limits to respond to interrogatories (14 days, 10 CFR §2.740(b)) and to document production requests (30 days, 10 CFR §2.741(d)), NRC regulations provide no guidance on the overall length of the discovery process, the amount of discovery, or the number of rounds of discovery.

Although licensing boards may set time limitations and other restrictions on discovery (see, 10 CFR §2.718), appropriate Commission direction should be given as part of the LSS rule. If the LSS is to result in any overall savings of time, it must be accompanied by

other changes in NRC discovery rules. These should include:

- a. No requests for production of documents unless the requesting party affirmatively demonstrates that the requested documents: (i) should have been included in the LSS but were not, or (ii) contain information which is unavailable by other means and for which the party has a substantial need which cannot be met in any other way.
- b. A limitation on the number of interrogatories which may be asked. Many federal district courts limit the number of interrogatories. The federal district court for the Eastern District of Virginia, for example, by rule limits the number of interrogatories to 30.^{5/} While additional interrogatories may be requested for good cause, the courts do not favor these requests. We would suggest that the number of interrogatories be limited to 100, and that only two rounds of interrogatories be permitted. Expansion of these limits would be allowed only on a strong showing of good cause and a demonstrated inability to otherwise develop the information sought.

5/ Rule 11-1(A).

c. A limitation on the number and time for taking depositions. The Eastern District of Virginia, for example, allows only 5 non-party depositions.^{6/} We would recommend that the period for taking depositions be limited to 6 months, commencing from the issuance of the special prehearing conference order, and that a party be limited to not more than 20 depositions. An expansion of these limits would be only on a strong showing of good cause and a demonstrated inability to otherwise develop the information sought.

Other modifications to NRC procedural rules to provide for an expeditious hearing process should also be made. These include:

1. Intervention based upon judicial standards: Since 1976, the Commission has allowed its licensing boards to grant intervention status to parties that failed to meet judicial standing requirements. Portland General Electric Co. (Pebble Springs Nuclear Plant, Units 1 and 2), CLI-76-27, 4 NRC 610 (1976). This "discretionary intervention" is legally unnecessary, tends to add

6/ Rule 11-1(b).

additional parties to the proceeding, complicates pre-hearing procedures, and should be removed.

2. Requirement for an affirmative case: Since we believe that a contention should not be admitted without substantial evidentiary support, it follows that a party sponsoring a contention should be required to present an affirmative evidentiary case for that contention. Current NRC case law places the burden of going forward on the applicant. This practice should be reversed.
3. Seriatum hearings and decisions: Because of the large number of contentions likely to be raised, the Commission should direct that the licensing board or boards will resolve contentions on an on-going basis and that internal agency appeals for these decisions need not await resolution of the last group of issues. In this way, resolution of the final set of issues by the licensing board will not be a critical path for aging resolution of earlier issues. While this is not inconsistent with current agency practice, Commission direction will assure that there will be no dispute on the timing of hearings, decisions and appeals.

ATTACHMENT 4

**INFORMATION RETRIEVAL SYSTEMS
A TUTORIAL**

**Prepared By
Negotiated Rulemaking Technical Staff**

FEBRUARY 3, 1988

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1.0 INTRODUCTION

This document has been prepared jointly by technical staff of the Conservation Foundation, the Nuclear Regulatory Commission, and Science Applications International Corporation (SAIC), the DOE LSS contractor. Opinions expressed in this document are those of the authors and are based on review of the literature and "hands-on" experience in designing and using on-line information and litigation support systems.

For further information or clarification, please contact:

Kirk Balcom (703) 476-1100
Avi Bender (301) 492-9914
Dick Pierce (703) 821-4350

1.1 PURPOSE

The purpose of this document is to provide the Negotiated Rulemaking Advisory Committee with a tutorial on basic information retrieval concepts and to establish a common framework and vocabulary for all future discussions. The document provides an explanation of search and retrieval methods, and a discussion of various storage, indexing and display techniques. This is followed by a description of common options for database creation and for the retrieval process. A glossary is included to define the most commonly used terms.

A very important system requirement, and the ultimate measure of success, is to provide accurate and timely access to all information within the LSS. There are other requirements as well and each imposes a different design specification. A major premise in developing this guide was to focus attention on a major technical driving factor, information search and retrieval concepts, and less on the hardware, cost and design aspects. These latter issues will be addressed at a later stage when more definitive requirements are established.

1.2 HOW TO USE THIS DOCUMENT

Section 2 of the report will guide you through the common ways to search and retrieve documents from an on-line database and will describe some of the advantages and disadvantages of each option. Section 3 describes how the information can be captured from hard copy or directly from word processing equipment in order to create the electronic database. Section 4 then takes you through the various options for cataloging and indexing. Storage options are described in Section 5 and document display and output options are described in Sections 5 and 6.

Using Section 2 as a menu, the reader can then turn to Section 8 to see the various options for creating a system to achieve the desired search and retrieval alternative. For example, if it is determined that only an abstract/bibliographic search will be required then all the options described under scenario B are possible. If enhanced full text search is the option then all the options under scenario F are possible. Closer scrutiny of scenarios A through F reveals redundancy of options in storage.

display, database creation indexing, display and workstations. Specific requirements such as "perform full text search and retrieve original highlighted ASCII text within 60 seconds and image within 24 hours" will begin to eliminate some of the options. Otherwise almost every conceivable scenario is possible but not necessarily practical. The actual approach for developing the LSS may involve some or all of scenarios A through F. Finally, while search and retrieval techniques are certainly important factors in determining system requirements, there are additional performance parameters which must be defined in order to specify a system. These are discussed briefly in Section 9.

2.0 SEARCH AND RETRIEVAL

Documents are searched and retrieved either manually through physical files, or electronically through computer searches of bibliographic headers, subject terms, abstracts, or full document text and are then available for review in electronic or hard copy readable form.

A search strategy generally retrieves one or more "hits" (those documents which meet the terms of the search query). The success of the search strategy is measured by two factors--recall and precision. Recall is the number of documents retrieved in relation to the number of documents that exist on the query. Perfect or 100% recall is retrieving all of the documents that satisfy the query. Precision is the number of retrieved documents that actually pertain to the query in relation to the total number of documents retrieved. Perfect or 100% precision means that there are no "false drops" (irrelevant documents). Retrieval systems are usually rated by how well they perform on recall and precision. In general, as recall improves, precision decreases. As the database grows, the user tends to reduce the number of hits by more restrictive searches, i.e. adding conditions which reduce recall. The third factor to consider is whether the amount of information displayed for each "hit" is sufficient to ascertain whether the "hit" is useful. Good system design as well as experience in using on-line databases are important factors in improving document retrieval.

2.1 BIBLIOGRAPHIC HEADER

A bibliographic header is composed of the essential parts of the document, such as author, title, date, etc., along with descriptive features, such as type of document, number of pages, etc. A search can be conducted on any word or date in the header. This type of system provides excellent recall and precision for such queries as "give me a list of all documents written by author x" or "give me a list of all documents published in the year 19xx." The system does not lend itself to content based searches since a search term must appear in the header. Therefore recall and precision are poor for content based searches. In addition, while the display of information is sufficient for an author or date search, it gives little or no indication of the validity or usefulness of the document in a subject search. Generally a review of the document is needed to determine usefulness.

2.2 BIBLIOGRAPHIC HEADER WITH ABSTRACT

The addition of a searchable abstract to the header improves the recall and precision for subject searches, as well as the ability to determine the usefulness of each document. A searcher must take into account, however, all possible synonyms for the subject term in order to increase recall. A well-written abstract that includes those words most likely to be used for retrieving that document will also substantially increase recall. In some cases, an extensive abstract can actually eliminate the need for obtaining a hard copy of the document. As a whole, recall is poor to average and precision is about average for this system, while the display of information is greatly improved over a bibliographic header. This is a more costly system than the header-only system since the author or an abstractor is

needed to provide the abstract.

2.3 BIBLIOGRAPHIC HEADER WITH SUBJECT TERMS

This system adds subject terms to the header, also improving recall and precision for subject searches. However, the information displayed for each "hit" is a poor indication of the usefulness of the document as subject terms are frequently limited in number and therefore are only an indication of the subject matter of the document. A hard copy of the document is generally necessary to determine its usefulness in meeting the search criteria. Subject terms are also useful in eliminating ambiguities of words in the header. Overall, the system is about average for recall and precision and below average for display.

2.4 BIBLIOGRAPHIC HEADER WITH ABSTRACT AND SUBJECT TERMS

The addition of both an abstract and subject terms to the header allows for a greater degree of recall than the previous systems. A searcher can also improve precision by looking at keywords assigned to a useful document and limit a search by using the same keywords. Again, the abstract assists in determining whether the document is useful. Recall is rated average to good, precision is average, and display is above average.

2.5 FULL TEXT

Full text indexing allows the searcher to search on every word within the document. If such a search is performed in conjunction with a synonym file, the resulting recall of documents may be higher than any of the preceding methods but with a relatively lower than average level of precision. Without the benefit of a synonym file the researcher (unless very knowledgeable in the field) will run into problems of semantics. For example, searching on volcanic may not result in documents using the words earthquake, ground movement, slip fault, tectonic...

Full text search is a superior method for content based searches used to identify places, people, and terms with the documents. Searching for concepts, however, is not an easy matter since concepts generally do not appear as words in the text. Full text indexing without any enhancement can create an unwieldy document retrieval situation where instead of finding the needle in the haystack the user retrieves the needle and the haystack. Depending on the software package used, display is generally above average since one can see the highlighted words within context. Built in term weighting algorithms are also available to display documents according to an importance ranking factor based on the frequency of the hit word within the document.

Compared to abstracts and subject terms, full text requires the least amount of human intervention during the database indexing process.

2.6 ENHANCED FULL TEXT

The approach that maximizes the virtues of all the preceding indexing schemes is enhanced full text. By combining bibliographic header, which provides a structure for the information before it enters the database, with

the full text which provides for content based searches, and subject terms which provide concepts, the resulting recall and precision is superior. The user now has greater flexibility to use either full text search, bibliographic header, subject terms, or a combination of the three.

2.7 RETRIEVAL ENHANCEMENTS

Regardless of which system is chosen for a database, there are certain retrieval enhancements that should also be considered to improve searching. These include:

- a) Boolean Logic - the use of connectors such as "and," "or," and "not."
- b) Range Searching - the use of phrases such as "from ... to ..." or "between ... and ..." and other similar phrases for searching date or other ranges.
- c) Field Searching - the capability of limiting the search to a specific field, such as author, date, title, etc.
- d) Phrase Searching - the ability to use phrases such as "nuclear waste" or "nuclear power plant."
- e) Proximity - searching for a word within x number of words of another word, e.g., the word "nuclear" within 3 words of "power."
- f) Sorting - sorting the output chronologically, alphabetically by author, etc.
- g) Limiting - limiting the output to certain years, a specific language, a geographical area.
- h) KWIC or keyword in context format - displays the keyword surrounded by the 25 or so words before and after.

These are only some of the major enhancements to be considered.

3.0 DATA CAPTURE

Data capture is the process by which documents and information become a part of the LSS. The process can take several forms including placing documents into a file cabinet, entering the full text of a document into machine readable (ASCII) form, and capturing the image on a microfilm or in an electronic (bit-mapped) image file.

3.1 IMAGES

3.1.1 Electronic

Capturing an electronic image of a document from hard copy (paper) is a straight-forward process consisting of feeding documents in to a scanning device, checking the resultant image, and entering a file identification of the document. The image is a replica of the original, including margin notes, signatures, graphics, date stamps, etc. which can not be captured in ASCII form. Images are the only reasonable method of capturing graphic oriented documents.

Electronic images require relatively large amounts of storage, typically 50,000 to 100,000 bytes per 8 1/2 x 11 inch page, as compared to ASCII at 2500 to 3000 bytes per page. Thus the use of images requires high density storage devices such as optical disks.

Although images are electronic, the characters or words on the page cannot be recognized by the computer until the image is processed by optical character recognition.

3.1.2 Microform

Microform is used to describe all of the reduced size photographic capture processes such as microfilm and microfiche. This type of document capture has been used for several years and is fairly automated and inexpensive. Retrieval of the proper image must be assisted by a computerized index if the files are large, and viewing of the document is usually accomplished by a projection process. Recent developments have combined the storage capabilities of microfilm with the versatility of electronic images. In this configuration, a microfilm image is located automatically in a storage device, scanned electronically, and transmitted to a terminal for viewing. This process is slower than retrieving electronic images from optical disks.

3.2 FULL-TEXT

The full text of a document may be entered into the LSS to be available to browse or read as part of the document selection process, or more likely to be used for full-text search by software or hardware. The three processes which are used to enter the full text of a document into the system are optical character recognition, rekeying, and conversion from machine readable form from word processing.

3.2.1 Optical Character Recognition (OCR) Process

The OCR process converts an electronic (bit-mapped) image of a page into

ASCII text (a bit pattern for each character and punctuation). The quality of the text produced is highly dependent on the quality of the image which is submitted to the process - i.e. an original printed page with uniform type will produce better results than a fourth generation photocopy with smudges and extraneous markings. Current generation OCR devices can produce text with 99.5% to 99.9% accuracy under optimum conditions. Note that this would still result in 3 to 15 errors in a 3000 character page.

Correction of errors is a manual process although tools such as spelling checkers can assist. (A nontrivial consideration is whether or not to correct spelling errors in the original text.) The necessity to correct the errors is dependent on their magnitude and other factors such as:

- The effect of the errors on full-text retrieval.
- The use of the ASCII text in reading or browsing the document.
- The use of the ASCII text for downloading and file transfer.

The advantages of the OCR process is that it is relatively automated and can be performed without much human intervention up to the point of review and correction. If correction is minimal or not required (i.e. high quality documents), costs can be as low as \$.20 to \$.40 per page. With many corrections (i.e. low quality documents), costs can be as much as \$2.50 to \$3.00 per page. If the total costs exceed \$3.00 per page, it can be less expensive to key in the document directly.

Continuous improvements are being made in OCR technology which will increase speed of production and reduce the error rate. Presently OCR of an image made from scanning of a good quality paper copy can be reasonably performed, however OCR from an image produced by blow-back of a microfiche or microfilm is not considered feasible.

3.2.2 Rekeying

Keying a document into a computer is accomplished simply by typing the characters directly on the keyboard. This rather low-tech approach is also the most costly method. At typical local service center rates of \$1.00 per 1000 characters, a readable page will cost \$2.50 to \$3.00 to enter in ASCII form. Rekeying is the only reliable method for poor quality documents such as those produced from microform or deteriorated paper.

3.2.3 Word Processing

Documents which have been prepared on a computer by word processing software, for example, are already in machine readable format. However due to the fact that most full-text programs require that files be entered in ASCII form and computer communications are not standardized, some conversion is required. Generally speaking, tools are available for this purpose.

The major problem with receiving data in machine readable format is the quality assurance. It is necessary that the machine readable version of the document be verified as a true representation of the hard copy. (In many cases last minute changes to a document are made on a typewriter.)

Costs for this process can be minimal if the document is produced on the same computer and the conversion process is automated. Given the variety of parties and contractors associated with the repository, it is not expected that costs will be negligible for this method, but they will certainly be less than rekeying and probably less than OCR with correction.

3.3 HARD COPY

Filing of information in hard copy is the simplest and most direct form, however it is probably the most unwieldy. Given the geographic distribution of retrieval, at least two, and probably more copies of the data would be required. As with microform capture, a computer aided index is a requirement for large databases. One of the major problems with hard copy storage is security. Documents are not always returned to the files or may be misfiled. Hard copy, provided the copy is faithful to the original, is easy to read, requiring no projection device or display terminal.

4.0 CATALOGING AND INDEXING

Cataloging and indexing are processes for preparing the LSS records for retrieval. The type of cataloging is directly related to the search and retrieval techniques to be employed.

4.1 HEADERS

4.1.1 Bibliographic Headers

Bibliographic cataloging is the simplest form of a description of a document. It results in a series of descriptive terms, usually objective in nature, which can be assigned by relatively unskilled clerical personnel. Examples are author, recipient, date, title, type of document, etc. The bibliographic header represents the minimum information which might be entered into an information system about a document. It is the opinion of the technical staff that all records in the LSS should have a bibliographic header, even if more complete indexing including full-text is used.

The bibliographic header is generally typed into a "fill in the blanks" form as a document is entered into the system. The information could conceivably be provided by the organization submitting the document as part of the submission process.

4.1.2 Subject Terms

Subject terms represent an addition to the header which provides information about the material in the document. They are particularly useful for technical reports and similar lengthy documents and less important for correspondence. There are differences of opinion over the best method to assign subject terms to a document, whether by an information management (librarian) specialist, the author, an independent subject expert, or some combination. The assignment of subject terms to a document, if it is to result in successful retrieval, should be made by a highly skilled individual together with such tools as an authority list and controlled vocabulary. Cost may therefore be a major factor in considering the utility of adding subject terms to the header. While the assignment is subjective and dependent upon the skill of the individual, subject terms can enhance retrieval by incorporating terms which are not used in the text itself but are the terms normally used by the searcher. Subject terms are typically entered into fixed fields of a structured database.

4.1.3 Abstract

Adding the abstract to a header can be less costly in cases where it has been provided as part of the document. If the abstract must be created for the header, costs and the requirement for skilled individuals become a consideration. Most database programs have text fields which are sufficiently large to hold the abstract. In effect the abstract is searched in "full-text". If a document contains an abstract and is entered in searchable full-text, the abstract will of course be included automatically as a search mechanism.

4.2 FULL TEXT

In order for all the words in documents to be searched by software the text must be indexed. All software full-text search programs include the tools to be used in this process; thus it is a relatively automated process and does not require skilled information management personnel. The resulting file, sometimes referred to as an inverted file, contains a sorted list of all words in the documents (except common words such as a, an, the, was, is, etc.) and a pointer to the location(s) of the words in the documents. The size of the inverted file is a function of the program which is used for the indexing, but it can vary from 50% to 200% of the original ASCII file.

Even after the inverted file has been created, new documents can be added to the system and the index modified to accommodate the additional information. Eventually, however, a modified index becomes inefficient to use, and a reindexing of the entire file is required.

Full text indexing, although not labor intensive, requires major computer resources and time to process large files. There are several examples, however, of commercial and government full text retrieval applications that are large and complex and still deliver reasonable indexing and retrieval response times. The files will require segmentation, although this may be invisible to the user.

5.0 STORAGE

5.1 HARD COPY

Hard copy (paper) is one possible mechanism for the information required in the LSS. The major problems with this method are the difficulties of locating documents, missing documents and pages due to misfiling or borrowing, and the space required. For 10 million pages approximately 600-700 filing cabinets occupying 4000-5000 square feet would be required. Advantages of hard copy include the readability of the document and the fact that the document is a true representation of the original including signatures.

5.2 MICROFORM

Storage in microfilm or microfiche provides a more condensed medium and therefore reduces the storage volume. Automated machinery is available to assist in locating a specific frame, but once it is found, a projection device is required in order to read the page. Quality of microform varies widely in readability and depends to a great extent on the quality of the original document. Missing documents can also be a problem with microform, but missing pages are not typical assuming the whole document was originally captured.

5.3 ELECTRONIC

To understand the electronic storage requirements for various techniques of capture and retrieval, consider an example document consisting of 5 pages of text and one page of graphic information. Storage requirements for the various cataloging and indexing forms are as follows:

	<u>Assumption</u>	<u>Bytes</u>
Bibliographic header	1500 characters	1500
Index to bibliographic header	Not all terms indexed	1000
Subject terms	10 phrases at 30 char/phrase	300
Index for subject terms	All terms indexed	300
Abstract	One-half page	1500
Inverted file of abstract	Abstract full-text searchable	1500
ASCII text of document	3000 characters/page	15,000
Inverted file of text	Full-text searchable by software	15,000
Image of graphic page	300 dpi compressed @ 20:1	55,000
Image of text pages	300 dpi compressed @ 20:1	<u>275,000</u>
	TOTAL	366,100

From this example, one can judge the relative impact on storage requirements of various search, retrieval, and display options.

5.3.1 Optical Disk

Optical disks represent the least cost electronic medium of storage for large volumes of data. Current optical disk technology is "write-once-read-

"many" (WORM), which means that the information cannot be erased or changed. Such a medium is ideal for archival documents. Erasable optical disks are now arriving on the market, but the technology and storage density is not as advanced as WORM. A 12" optical disk storing 6.4 gigabytes can contain 100,000 pages in image form, 1,000,000 pages in indexed full-text, or headers for about 1,000,000 documents.

Optical disks can be searched randomly for files, thus resulting in faster response than serial devices such as microfilm.

5.3.2 Magnetic Tape

Magnetic tape is a relatively low cost storage medium, however it requires manual intervention (to mount the right tape on the tape reader) and retrieval is relatively slow. Magnetic tape is therefore not often used for information which must be accessed frequently, but is well suited for backup storage which is only accessed in the event of failure of the primary storage media.

5.3.3 Magnetic Disk

Magnetic disks are probably the highest cost storage media for large (gigabyte) storage requirements. Its advantage is primarily the speed of retrieval.

6.0 DISPLAY

All retrieval techniques will result in a list of "hits", i.e. documents which meet the query. Since no query technique is 100% efficient, additional review is probably required to make the final determination if the hits are indeed documents of interest to the user. This may be done on the screen by reviewing additional information on each document which may be stored in the system. Such information could be the image of each page, the ASCII text, the header, or a report such as a list of all documents by a specific author.

6.1 IMAGE

The electronic image of the page, displayed on a high-resolution terminal, provides a true representation of the original document in a form which can be read or skimmed. All markings on the page, including marginalia, signatures, and date stamps will be reproduced in the image as well as figures and graphics which cannot be stored electronically in any other form.

Images must be viewed on a high-resolution (100 dots per inch minimum) screen to be readable. The interface device between the screen and the computer will include a compression/decompression board which permits the storage of the image to be in a compressed form, approximately 1/10 to 1/30 of the original scanned image. This hardware is of course more expensive than standard monochrome monitors and interface devices.

Due to the fact that images, even in the compressed form, require some 50,000 to 100,000 bytes per page, remote transmission of images is not very practical. One page transmitted over a 2400 baud modem would take about 4 minutes.

Images can also be provided in microform and projected locally on a microfilm or microfiche reader.

6.2 ASCII TEXT

The text of the document may be available in machine readable form or it may have been created by the OCR process for the purpose of indexing the text for full-text search. If this ASCII form of the text is stored in the system, it can be viewed on demand in order to help determine if the document is indeed of interest. Note that even if the document is available for full-text search, it is the index of the text that is used by the software and the ASCII text is not necessarily maintained.

ASCII code is relatively compact storage compared to images, incorporating compression techniques to provide even more efficiency. Thus remote transmission of text is reasonable to accomplish. If the text can be transmitted to a personal computer, it can be stored, printed, and extracted for inclusion as quotes in other documents.

The text of a document contains only the alphanumeric characters and punctuation which were contained in the original document. It will not include signatures, hand-written notes, figures, or graphics.

6.3 HEADER

Output of the entire header of a document, including subject terms and abstract if they have been included, may be sufficient to determine if the document is of interest. This information will require the least amount of storage and transmission time of the possible screen outputs, and like ASCII text, will contain only alphanumeric characters.

7.0 DOCUMENT OUTPUT

Once it has been determined that a document is of interest and a more permanent record of the document is desired for detailed reading, it can be obtained in hard copy or microform.

7.1 HARD COPY

A copy of the document can be obtained in several ways:

- If the stored copy is in paper form, a photo copy can be made.
- If the stored copy is in electronic image form, a copy can be printed on a laser printer.
- If the stored copy is in microform, a "blowback" of the frame can be printed.

Any of these copies could be obtained at the LSS site, the user site, or sent by express or regular mail.

7.2 MICROFORM

A microfiche or microfilm copy of the document can be made from any of the stored forms noted above, and similarly transmitted to the user. Although storage space requirements of the user are reduced when the documents are in microform, a reader or reader/printer will be required.

7.3 FACSIMILE

Particularly when time is critical, copies of the selected documents can be transmitted to the user by facsimile devices. Cost of this alternative will be the highest, requiring not only transmission costs but also the requirement for a receiving device.

8.0 REPRESENTATIVE SCENARIOS

In this section we have attempted to define certain scenarios based on the search and retrieval techniques presented in section 2. The alternatives listed in section 2 through 7 can be combined in many forms to represent a system. These scenarios define the choices which must be made for each search and retrieval option, still leaving open the various remaining options. A possible set of scenarios are as follows:

- A. A system which provides for search and retrieval on information contained in bibliographic headers only. The document could be stored on microform, electronic images, or hard copy.
- B. In addition to the capabilities described in A., an abstract is added to the header which can be searched in full text.
- C. In addition to the capabilities described in A., subject terms are added which can be searched.
- D. A combination of B. and C. which permits searches on all header information including bibliographic, subject terms, and abstract.
- E. A system which provides for full-text search of documents along with an abbreviated header. The document could be stored on microform, electronic image, or hard copy.
- F. A combination of the system described in E with the capability to search headers with subject terms (C).

A. BIBLIOGRAPHIC HEADER

Document Database Creation

Options include:

- Scan pages to capture bit-mapped image
- Film pages for microfilm or microfiche
- Maintain hard copy

Cataloging/Indexing

Bibliographic header comprised of objective fields such as author, title, date, document type, accession number, etc.

Storage

Options include:

- Magnetic disk
- Magnetic tape
- Optical disk
- Microform
- Hardcopy

Display

Standard alphanumeric monitor for header information and interaction with the data base.

Optional high resolution monitor for electronic images and/or microform reader.

Document Output

Options include:

- Microform or hardcopy by mail or express
- Microform available at local workstation and printed locally
- Electronic image available at local workstation and printed locally
- Copy via facsimile device

B. BIBLIOGRAPHIC HEADER WITH ABSTRACT

All categories and options remain the same as Scenario A, except for:

Cataloging/Indexing

Bibliographic header comprised of objective fields plus the preparation of an abstract of the document.

C. BIBLIOGRAPHIC HEADER WITH SUBJECT TERMS

All categories and options remain the same as Scenario A, except for:

Cataloging/Indexing

Bibliographic header comprised of objective fields plus the selection of subject terms.

D. BIBLIOGRAPHIC HEADER WITH ABSTRACT AND SUBJECT TERMS

All categories and options remain the same as for Scenario A, except for:

Cataloging/Indexing

Bibliographic header comprised of objective fields plus the preparation of an abstract and the selection of subject terms.

E. FULL TEXT

Document Database Creation

Preparation of machine readable (ASCII) text of the document by conversion of hard copy using optical character recognition process or rekeying and conversion of documents available in word processing files.

Image of the document may optionally be prepared by:

- Scanning pages to capture bit-mapped image,
- Film pages for microfilm or microfiche,
- or maintaining hard copy.

Cataloging/Indexing

Preparation of a bibliographic header which may be less detailed than in Scenarios A through D.

Indexing of the full text if software full text retrieval is employed.

Storage

Same options as for Scenario A.

Display

Standard alphanumeric monitor for header and text information and interaction with the data base.

Optional high resolution monitor for electronic images and/or microform reader.

Document Output

Options include:

- Microform or hardcopy by mail or express
- Microform available at local workstation and printed locally
- Printing of ASCII text on local printer
- Downloading of ASCII text to local workstation
- Electronic image available at local workstation and printed locally
- Copy via facsimile device

F. ENHANCED FULL TEXT

All categories and options remain the same as Scenario E, except for:

Cataloging/Indexing

Preparation of a bibliographic header plus the selection of subject terms.

Indexing of the text if software full text retrieval is employed.

9.0 ADDITIONAL SYSTEM PARAMETERS

The preceding sections have focused on the search and retrieval aspects of the LSS system, including the impact of certain aspects on system design. There are several additional parameters which have significant effect on the system, and since they are related to aspects of search and retrieval or display, we will mention them here. Decisions on these aspects must be made as well before the system requirements can be complete and design specifications can be formulated. These parameters include:

- 1) Data volume - total number of documents and pages.
- 2) Response time - time to respond to a request such as a query or a request to print.
- 3) Geographic distribution - locations of end users and data input.
- 4) Number of users - especially the number who may use the system simultaneously.
- 5) Type of users - which will affect types of queries and the user interface.
- 6) Centralized versus distributed - location(s) of the data base.
- 7) Technology - constantly providing new capabilities and lowering the cost of existing capabilities.
- 8) Cost.

APPENDIX

**GLOSSARY OF THE
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GLOSSARY

ABSTRACT

Summary of the main points in a document, usually organized around the theory of the case or subject matter at issue; also called digest; most common use in discovery systems is to summarize portions of transcripts.

ASCII

ASCII is the acronym for American Standard Code for Information Interchange. This is the system by which letters, punctuation characters, spaces, some special symbols and control codes are encoded into numeric values for interpretation and storage by a computer.

ASCII FILE

An ASCII FILE is a TEXT FILE containing the ASCII codes which represent characters and symbols (as opposed to an IMAGE FILE which contains the data to actually draw these characters). See also BIT-MAPS.

BIT

BIT stands for BInary digit. It represents the smallest unit of information in a digital computer. It can have a value of either 1 or 0, and can be represented by a switch (which is either on or off).

BIT-MAP

Rather than storing the information on a page of text as a series of ASCII codes which represent the characters on that page, an IMAGE of that page may be created and stored in a computer. This IMAGE consists of a large number of BITS (ranging from x to y per page of typed text), where the zeros and ones stored by the BITS represent the white and black portions of the page at high RESOLUTION. Such an image is called a BIT-MAP. When displayed, a BIT-MAP can be interpreted only by a human user who "reads" the image; it is not meaningful to computer programs. A FILE containing a BIT-MAP may be copied, moved, displayed or printed by a computer system.

BOOLEAN LOGIC

Boolean logic (or Boolean algebra) is a system of logical functions and operators which permit computations and operations on binary (true/false) operations. This system was developed by and named after George Boole, an English mathematician (1815-1864).

BYTE

A BYTE is the basic unit of data storage. A BYTE is made up of a certain number of BITS. This number depends on the architecture of the computer, but is always divisible by two (with no remainder). The full ASCII code requires at least 8 BITS per BYTE, which is the minimum number found in conventional computers.

CATALOGING

CATALOGING is the process of describing a document being entered into a collection (e.g. a library or DATA BASE management system). The object of CATALOGING is to extract (or assign) the information necessary to access (find) the document without having to examine

sequentially each document in the collection. CATALOGING information may be used in INDICES of the collection. (See HEADER)

CD-ROM (or Compact Disk - Read Only Memory)

Some OPTICAL DISK systems use disks which have had data written to the disk by special reproduction equipment, and can only been read by the computer system onto which they are installed. When such disks (or disk systems) are Compact Disk format, they are called CD-ROMs.

CD-WORM (or Compact Disk - Write Once, Read Many-times)

Some OPTICAL DISK systems can write to disks as well as read them. Unlike magnetic disk storage devices, these systems can not erase and re-write information. When such disks (or disk systems) are Compact Disk format, they are called CD-WORMs. To modify a FILE stored on such a system, the entire file (including the correction) must be re-written. The new and old versions are distinguished by VERSION NUMBERS.

CODING See CATALOGING

CONTROLLED VOCABULARY

List of terms or phrases which are maintained for continuity of spelling and usage, such as authors, addresses, organizational abbreviations, document types, subject terms. (Also known as authority list)

CHARACTER RECOGNITION ENGINE

A device designed to convert a BIT MAP IMAGE of a document into an ASCII file is called a CHARACTER RECOGNITION ENGINE. Simple versions are designed to recognize specific character sets (font recognition devices) while more complex versions are programmed to recognize specific characters by their unique topology.

DATA BASE

An organized body of information on a pre-determined topic is a DATA BASE. Related DATA BASES can be logically or physically combined to constitute a larger and more detailed DATA BASE on a broader subject. A DATA BASE can be envisioned as a set of file cabinets, containing completed forms of a given kind. Each completed form is called a RECORD, each question on the form is a FIELD, and each completed question is the contents of that FIELD.

DOCUMENT FILES

A DOCUMENT FILE (or simply a "document", when this usage would not confuse the FILE with the physical document it represents) is the basic type of data stored in a computerized archive system such as the LSS. A DOCUMENT FILE is a TEXT FILE which contains the contents of a physical document; it and may also contain a HEADER.

E-MAIL

"Electronic Mail"; creation, storage and transmission of word processing documents from computer to computer.

FIELD

A RECORD may be subdivided into FIELDS, just as a form can consist of a number of blanks into which information can be entered. The data to be entered in a FIELD is determined by the FIELD'S definition. A completed set of FIELDS is called a RECORD. Examples include author, date, title, abstract.

FILE

A FILE is a unit of data storage. A FILE is identified by a FILENAME, and contains a collection of related data. These data need not be further organized (*i.e.*, they may simply be a STRING of BYTES) or they may be subdivided further into named FIELDS.

FILENAME

Each FILE stored on a computer system can be identified by a FILENAME. Such a name is either unique to a FILE, or files with the same name can be distinguished by their location within the computer's FILE STRUCTURE, or by the VERSION NUMBER of the FILE.

FULL TEXT

The version of the document as it resides on a computer system for display ("linear file" in retrieval terms).

FULL TEXT SEARCHING

FULL TEXT SEARCHING is a computerized text processing technique which locates the occurrence of specific words or groups of words within a TEXT FILE. Logical relationships can be specified by Boolean logic expressions when stating the search condition (*e.g.* "Find places in the text where 'hot' and 'cold' occur within the same physical paragraph") and proximity expressions. Software FULL TEXT SEARCHING techniques require INVERTED FILES while hardware techniques stream the entire portion of the DATA BASE being examined through a hardware comparator, and do not require such files.

HARD COPY

A HARD COPY is a paper copy of a document. It can be the paper original, a photocopy or a telefax copy, for example.

HEADER

A TEXT FILE in a computerized archive system such as the LSS generally contains the contents of a physical document, stored as ASCII codes of the text within that document. In addition to this text, CATALOGING information can be appended to the beginning (or "head") of the document. Such a HEADER may contain a variety of information in FIELDS, which may be accessed directly by DATA BASE management software (for INDEXED SEARCHING) or may be accessed by FULL TEXT SEARCH software (either independently or along with the body of the text from the document). Headers are also known as surrogates, document coding forms, DCF's, bibliographic citations and "identified" in the NRC consensus document on the rulemaking issues.

IMAGE

An IMAGE of a page visually presents the information on that page. This image is meaningful only to a human user, and can not be

interpreted by computer programs. Examples of document images are photocopies, telefax copies, microfiche and BIT-MAP IMAGE FILES.

IMAGE COMPRESSION

The number of BITS in an uncompressed IMAGE FILE of a page of text is equal to the area of the page times the RESOLUTION of the IMAGE (plus a few additional BITS required by all FILES). The amount of memory required to store this IMAGE can be reduced by IMAGE COMPRESSION techniques.

IMAGE FILE

An IMAGE FILE is a computer FILE containing a BIT-MAP of a document IMAGE. The number of BITS in an uncompressed IMAGE FILE of a page of text is equal to the area of the page times the RESOLUTION of the IMAGE (plus a few additional BITS required by all FILES).

INDEX (plural INDICES)

There are a variety of logical ways to physically arrange a collection of documents (e.g. alphabetically by author or by title, chronologically by date produced or entered into the collection). Each of these ways is designed to help access (find) a document based on a specific strategy for finding it. Unfortunately, a collection cannot be organized simultaneously in each of these ways. In order to make each strategy possible, surrogate collections can be created which contain the key information (sorted appropriately) and the location of the document. In libraries, these surrogate collections are the author catalog and subject catalog. Such DATA BASE surrogates constitute INDICES of the collection.

INDEXED SEARCH

INDEXED SEARCHING, the conventional method used by DATA BASE management software to access data, searches INDICES constructed to support the specific type of queries. This is distinguished from FULL TEXT SEARCHING, which searches the TEXT FILE (or corresponding INVERTED FILE, in the case of FULL TEXT SEARCH software) that has not been otherwise organized for retrieval.

INVERTED FILE

Software FULL TEXT SEARCH techniques do not directly search a TEXT FILE at the time the search request is made (as do word processing programs when searching for a STRING). Rather, the TEXT FILE is pre-processed to create a file containing the words in the TEXT FILE and pointers to their locations. The INVERTED FILE can be searched much faster than the original FILE since it has been pre-sorted.

KEYWORD

Accessing documents in a collection can be facilitated by assigning KEYWORDS to the document (or a RECORD representing it in a DATA BASE) during CATALOGING. KEYWORDS are words that describe the document's contents and are best assigned from a CONTROLLED VOCABULARY, preferably with the aid of a THESAURUS.

KEYWORD IN CONTEXT (KWIC)

Words in the FULL TEXT document, including words located before and after the keyword.

KEYWORDING

A part of CATALOGING, KEYWORDING is the processes of assigning KEYWORDS. KEYWORDS are generally assigned from a CONTROLLED VOCABULARY, and are most useful when based upon a THESAURUS.

OCR (or Optical Character Recognition)

A device or process which converts HARD COPY text into an ASCII file by using a CHARACTER RECOGNITION ENGINE.

OPTICAL DISK

An OPTICAL DISK is a computer data storage system, such a CD-ROM or CD-WORM disk drive, which records BITS as the presence or absence of minute pits on a glass disk. The system is "optical" since laser light is used to write and read this data from the disk.

PIXEL

An IMAGE can be represented by a large number of small spots (usually in rows and columns). These spots, which can be either black or white, are called PIXELS (from "picture elements").

PROTOTYPE

In compiling the information necessary to design and build a large DATA BASE management system, a system PROTOTYPE can be used to estimate quantitative performance information about components of a larger system to be built, and can be used to quantify and evaluate the behavior and response of users to software while it is being developed. Such a PROTOTYPE consists of hardware test environment in which specific components can be interfaced and evaluated, a software environment which can run a simulation (or simplified version) of software to be used in the complete system, and a test DATA BASE (representative of, but significantly smaller than the final DATA BASE) which can be used to test user behavior, software and hardware performance and DATA BASE organization.

RECORD

A RECORD is a group of one or more related FIELDS, containing data. A DATA BASE generally consists of group of RECORDS, each containing a group of related data in the subject of the DATA BASE. These can be considered individual completed forms in a file cabinet which represents the DATA BASE.

RESOLUTION

The RESOLUTION of a BIT MAP IMAGE is the number of PIXELS per unit area. If no IMAGE COMPRESSION has occurred, the number of BITS needed to store an IMAGE FILE is equal to the number of PIXELS in the IMAGE.

SCANNER

A SCANNER is a device which converts HARD COPY text into a BIT-MAP IMAGE.

STRING

A character STRING is a series of characters represented by their ASCII codes.

SUBJECT TERMS

Words or phrases assigned to a document during subjective CATALOGING, to represent the overall concept presented by a document. SUBJECT TERMS are usually selected from a hierarchical CONTROLLED VOCABULARY list, such as the DOE Keyword Dictionary, and are assigned at the closest level of detail.

SYNONYM FILE

One aspect of a THESAURUS is to identify words (or phrases) which have the same meaning (synonyms), and to select one which is used to represent and replace the others during KEYWORDING. A FILE containing such groups of related words is a SYNONYM FILE. Such a FILE can be used with some sophisticated FULL TEXT SEARCH software, so that each synonym is found in a search if any of a group of synonyms from the FILE are sought.

TEXT FILE

A TEXT FILE has its characters stored as ASCII codes, as opposed to IMAGE FILES where the shape of the character is stored in BIT-MAP form. TEXT FILES in the LSS generally contain the text of documents in the system, and are therefore often referred to as DOCUMENT FILES (or simply, "documents", when this would not confuse them with physical documents).

THESAURUS

A THESAURUS is a CONTROLLED VOCABULARY with embedded instructions and relationships which assist in assigning KEYWORDS or SUBJECT TERMS consistently and logically during CATALOGING. THESAURI can be used for developing a search strategy at a precise level of detail and may contain broader, narrower, and related terms (synonyms). Also called taxonomy and classification scheme.

VERSION NUMBER

When FILES are modified in many computer systems, previous versions of the FILE are retained under the same FILENAME. To distinguish between versions, VERSION NUMBERS are assigned.

ATTACHMENT 5

PROPOSED CONSENSUS STATEMENT #1

DISCOVERABLE RECORDS

Discoverable records means any record that is relevant or likely to lead to the discovery of information that is relevant to the licensing of a geologic repository for the disposal of high-level nuclear waste under regulations set forth in 10 C.F.R. Chapter 1, including but not limited to, (INSERT categories of records agreed upon by the committee).

PROPOSED CONSENSUS STATEMENT #2

CRITERIA FOR DETERMINING WHETHER
DISCOVERABLE DOCUMENTS WILL BE ENTERED INTO THE LSS
IN SEARCHABLE FULL TEXT VS. NON-SEARCHABLE FULL TEXT

1. Discoverable records will be separated into two categories:

Prospective -- Records generated in electronic format. These records include any and all records generated after July 1, 1988 (the date on which it is presumed that all discoverable documents generated at DOE will be generated and captured in an electronic format), as well as all records generated prior to this date which, in fact, have been generated in electronic format.

Backlog -- Records not generated in electronic format. These records include discoverable records generated prior to July 1, 1988, provided that such records have, in fact, not been generated in electronic format.

2. Electronic format, as the term is used herein, means documents generated and captured electronically in a format which meets basic compatibility requirements for subsequent entry into the LSS in searchable full text (i.e., machine readable).

3. All prospective records will be entered into the LSS in searchable full text except those which fall into specifically enumerated exclusionary categories (to be determined by the committee). Searchable full text may be enhanced by bibliographic headers and/or abstracts.
4. No backlog documents will be entered into the LSS in searchable full text except those falling in specifically enumerated inclusionary categories (to be determined by the committee). These records will be entered into the LSS in searchable full text no later than (insert date to be determined by the committee).
5. Backlog documents which are not entered into the LSS in searchable full text will be entered in surrogate form, using either headers and/or abstract indexes. These indexes themselves will be searchable and the images of backlog records will be captured electronically for display, but not for searching, in full text.
6. The categories of backlog records to be entered into the LSS in searchable full text and prospective records to be excluded from entry into the LSS in searchable full text may be revised from time to time by potential parties to the licensing proceeding. (The committee will establish a process pursuant to which such revisions can be made

binding. This process could come within the ambit of a pre-licensing board, or some other means to be determined by the committee.)

7. Notwithstanding the above, potential parties to the licensing proceeding may request that another party's records be entered into the LSS in searchable full text if they determine that they or the other party may rely on such records during the licensing proceeding.

PROPOSED CONSENSUS STATEMENT #3

PRIVILEGED DOCUMENTS

A. ATTORNEY/CLIENT AND ATTORNEY WORK PRODUCT PRIVILEGES

1. The attorney/client and attorney work product privileges may be relied upon by all parties to the licensing proceeding to withhold records from the unprotected, searchable full text portion of the LSS.
2. The privileges will be applied in accordance with interpretations under the Federal rules of discovery and evidence.
3. All discoverable records, for which these privileges are asserted, must be identified in the LSS with basic header information, to wit: author, recipient, date, title, brief description.
4. The basic headers which will be used to identify records for which this privilege is asserted must be entered into the LSS no later than three (3) months (or some other date to be determined by the committee) after generation of the record by the party asserting the privilege.

B. DELIBERATIVE PROCESS PRIVILEGE

1. The deliberative process privilege will be available to the Federal agencies, Indian Tribes, states and local governments who are parties to the licensing proceeding.
2. To the extent that an administrative or judicial decision is rendered which places a limitation or preclusion on the applicability of this privilege to any record or category of records generated or possessed by any Federal agency, such a decision shall apply to records to be entered into the LSS.
3. All records for which a deliberative process privilege is claimed shall be identified in the same manner as A.3. above, reasonable contemporaneously with the creation of the record.
4. To the extent that the committee agrees on the use of a pre-licensing board to hear and resolve discovery disputes, DOE agrees to be bound by decisions of that board on the issue of whether the NWPA limits the availability of the deliberative process privilege to DOE.

PROPOSED CONSENSUS STATEMENT #2

CRITERIA FOR DETERMINING WHETHER
DISCOVERABLE DOCUMENTS WILL BE ENTERED INTO THE LSS
IN SEARCHABLE FULL TEXT VS. NON-SEARCHABLE FULL TEXT

1. Discoverable records will be separated into two categories:

Prospective -- Records generated in electronic format. These records include any and all records generated after July 1, 1988 (the date on which it is presumed that all discoverable documents generated at DOE will be generated and captured in an electronic format), as well as all records generated prior to this date which, in fact, have been generated in electronic format.

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2. Electronic format, as the term is used herein, means documents generated and captured electronically in a format which meets basic compatibility requirements for subsequent entry into the LSS in searchable full text (i.e., machine readable).

3. All prospective records will be entered into the LSS in searchable full text except those which fall into specifically enumerated exclusionary categories (to be determined by the committee). Searchable full text may be enhanced by bibliographic headers and/or abstracts.
4. No backlog documents will be entered into the LSS in searchable full text except those falling in specifically enumerated inclusionary categories (to be determined by the committee). These records will be entered into the LSS in searchable full text no later than (insert date to be determined by the committee).
5. Backlog documents which are not entered into the LSS in searchable full text will be entered in surrogate form, using either headers and/or abstract indexes. These indexes themselves will be searchable and the images of backlog records will be captured electronically for display, but not for searching, in full text.
6. The categories of backlog records to be entered into the LSS in searchable full text and prospective records to be excluded from entry into the LSS in searchable full text may be revised from time to time by potential parties to the licensing proceeding. (The committee will establish a process pursuant to which such revisions can be made

binding. This process could come within the ambit of a pre-licensing board, or some other means to be determined by the committee.)

7. Notwithstanding the above, potential parties to the licensing proceeding may request that another party's records be entered into the LSS in searchable full text if they determine that they or the other party may rely on such records during the licensing proceeding.

PROPOSED CONSENSUS STATEMENT #3

PRIVILEGED DOCUMENTS

A. ATTORNEY/CLIENT AND ATTORNEY WORK PRODUCT PRIVILEGES

1. The attorney/client and attorney work product privileges may be relied upon by all parties to the licensing proceeding to withhold records from the unprotected, searchable full text portion of the LSS.
2. The privileges will be applied in accordance with interpretations under the Federal rules of discovery and evidence.
3. All discoverable records, for which these privileges are asserted, must be identified in the LSS with basic header information, to wit: author, recipient, date, title, brief description.
4. The basic headers which will be used to identify records for which this privilege is asserted must be entered into the LSS no later than three (3) months (or some other date to be determined by the committee) after generation of the record by the party asserting the privilege.

B. DELIBERATIVE PROCESS PRIVILEGE

1. The deliberative process privilege will be available to the Federal agencies, Indian Tribes, states and local governments who are parties to the licensing proceeding.
2. To the extent that an administrative or judicial decision is rendered which places a limitation or preclusion on the applicability of this privilege to any record or category of records generated or possessed by any Federal agency, such a decision shall apply to records to be entered into the LSS.
3. All records for which a deliberative process privilege is claimed shall be identified in the same manner as A.3. above, reasonable contemporaneously with the creation of the record.
4. To the extent that the committee agrees on the use of a pre-licensing board to hear and resolve discovery disputes, DOE agrees to be bound by decisions of that board on the issue of whether the NWPA limits the availability of the deliberative process privilege to DOE.

ATTACHMENT 6

DURYEA, MURPHY, DAVENPORT & VAN WINKLE
Attorneys at Law

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Seattle Tower, 24th Floor
1216 Third Avenue
Seattle, Washington 98101
(206) 343-9365

Please reply to: Olympia

March 1, 1988

**HLW Licensing Support System
Advisory Committee Members**

**Re: Categories Of Documents To Be Included In Or Excluded From The LSS
In Searchable Full Text**

Dear Colleague:

I am enclosing Nevada's list of inclusions and exclusions from the LSS in searchable full text.

As you can see, our list of inclusions (category A) is, hopefully, all encompassing. Our intention is quite simply to capture every document which has any application to the repository siting and development process which is not otherwise excludable. We look forward to discussing this matter with all of you at the March 22-24 meeting.

With best personal regards.

Yours very truly,

**DURYEA, MURPHY,
DAVENPORT & VAN WINdle**

Malachy R. Murphy

MRM*jfe
Enclosure

cc: Harry Swainston

A. The following is a list of subject matter categories of documents, whether "prospective" or "backlog", which should be included in the LSS in searchable full text. The term "document" as used herein, means any written, printed, recorded or graphic matter, however produced or reproduced, prepared during, or referring or relating to the time period involved in the subject proceeding or concerning or related in whole or in part to any issue or subject matter raised or referred to in the subject proceeding. If a document has been prepared in several copies or additional copies have been made and the copies are not identical, whether by reason of subsequent modification of a copy or by the addition of notations or other modifications, the non-identical copy is a separate document. "Document" as used herein specifically includes writings, statements, depositions, diaries, datebooks, calendars, notes, memoranda, correspondence, files, transcripts of meetings and electronic recordings maintained by any person or group of persons as part of his or their personal or official files, whether at home or at work. "Document" as used herein, includes documents as described above, notwithstanding any claim of privilege with respect to disclosure of such document.

1. Any document pertaining to the location of valuable natural resources, hydrology, geophysics, seismic activity, atomic energy defense activities, proximity to water supplies, proximity to populations, the effect upon the rights of users of water, proximity to components of the National Park System, the

National Wildlife Refuge System, the National Wildlife and Scenic River System, the National Wilderness Preservation System, or National Forest Lands, proximity to sites where high-level radioactive waste and spent nuclear fuel is generated or temporarily stored, spent fuel and nuclear waste transportation, safety factors involved in moving spent fuel or nuclear waste to a repository, the cost and impact of transporting spent fuel and nuclear waste to a repository site, the advantages of regional distribution in siting of repositories, and various geologic media in which sites for repositories may be located.

2. Any document related to repository siting, construction, or operation, or the transportation of spent nuclear fuel and high-level nuclear waste, not categorized as an "excluded document", produced by or in the possession of the Los Alamos National Laboratory, the Lawrence Livermore National Laboratory, Sandia National Laboratory, Lawrence Berkely Laboratory, Oak Ridge National Laboratory, the United States Geologic Survey or any other contractor of the Department of Energy in general.

3. All documents related to the physical attributes of the Basin and Range Province of the continental United States.

4. Any document listing and/or considering any site or location other than Yucca Mountain as a possible location for a high-level nuclear waste repository, or any alternative technology to deep geologic disposal.

5. Any document analyzing the effect of the development of a repository at Yucca Mountain on the rights of users of water in the Armagosa ground-water basin in Nevada.

6. Any document analyzing the health and safety implications to the people and environment of the transportation of spent fuel between locations where spent fuel is generated and Yucca Mountain, Nevada, or any other site nominated for repository characterization on May 28, 1986, including, but not limited to:

a. Any analysis of possible human error in the manufacture of spent fuel casks;

b. Any analysis of the actual population density along all of any specific projected routes of travel;

c. Any analysis of releases from any actual radioactive material transportation incidents;

d. Any analysis of the emergency response time in any actual radioactive materials transportation incident;

e. Any actual accident data on any specific projected routes of travel.

f. Any calculations or projections of the probabilities of accidents on any specific projected routes of travel;

g. Any data on the physical properties or containment capabilities of spent fuel casks which have been used or which are projected to be used at any hypothetical or actual projected repository.

h. Any analysis of modeling of the containment capabilities of spent fuel casks under a stress scenario;

i. Any analysis or comparison of spent fuel casks projected to be used against the spent fuel cask certification standards of the Nuclear Regulatory Commission;

j. Any analysis of the containment capabilities of spent fuel casks containing spent fuel which has been burned up over an extended period.

7. Any document analyzing or comparing Yucca Mountain, Nevada with any other site in the same "geohydrologic setting".

8. Any document regarding the past, present, or future atomic energy defense activities at the Nevada Test Site.

9. Any document analyzing any potential interference or incompatibility between a Yucca Mountain, Nevada, high-level nuclear waste repository and atomic energy defense activities at the Nevada Test Site.

10. Any document related to the land status, use or ownership of Yucca Mountain, Nevada.

11. Any document considering or analyzing the attributes or detriments of any engineered barrier upon the radioisotope isolation capability of Yucca Mountain, Nevada, or any other site considered.

12. Any document evaluating the effect of extended fuel burn-up on Yucca Mountain, Nevada's adequacy as a repository site for disposal of spent fuel or upon the design of any such theoretical repository.

13. Any document analyzing or investigating the potential for discharge of radioisotopes into the Death Valley National Monument.

14. Any document analyzing the recharge of the underlying saturated zone or the hydroconductivity of the unsaturated zone at Yucca Mountain.

15. Any document containing any data or analysis of volcanic action in the volcanic system of which Yucca Mountain is a part.

16. Any document containing any data or analysis of events of tectonic faulting at Yucca Mountain, either at or beneath the surface of the ground, in tuffaceous rock generally, or in the volcanic system of which Yucca Mountain is a part.

17. Any document containing instructions or other limitations on the scope of work to be performed by Department of Energy personnel or contractors' personnel.

18. Any document pertaining to prevention or control of human intrusion at the Yucca Mountain site.

B. The following is a list of documents which may be excluded from the licensing support system in searchable full text, notwithstanding their dates of production.

1. Identical copies of documents which are otherwise includable within the searchable full text system.

2. Letters of transmittal used to accompany the transmission of programmatic documents within the Department of Energy. A programmatic document is one related to administration or

execution of the Department of Energy's nuclear waste program which contains no reference to any original data, scientific inquiry, site or facility engineering or other data analyses.

3. Documents submitted for reimbursement of personal expenses of travel of Department of Energy personnel or contractor personnel other than for travel to Yucca Mountain to collect, sort, analyze or disseminate data about Yucca Mountain.

4. Any documents pertaining exclusively to the management or administration of the U.S. Department of Energy, or the office of Civilian Radioactive Waste Management. An administrative document is one pertaining to financial management, procurement, personnel, office space, contracting, etc., which does not contain, or refer to, original data, scientific inquiry, transportation data or analysis, engineering data, design or analysis, site analysis or comparison, radioactive or other releases to the environment, cask design or analysis, waste acceptance rate, or the operation of a geologic repository or monitored retrievable storage facility.

ATTACHMENT 7

ENVIRONMENTAL DEFENSE FUND

1405 Arapahoe Avenue
Boulder, CO 80302
(303) 440-4901

TO: Participants in Negotiated Rulemaking

FROM: Melinda Kassen *MK*

DATE: March 9, 1988

RE: Inclusion Items for LSS

Enclosed is the Environmental
Coalition's list of topics for automatic
inclusion into the LSS.

LICENSING SUPPORT SYSTEM TOPICS FOR INCLUSION

I. The Site

- A. LOCATION, GENERAL APPEARANCE AND TERRAIN, AND PRESENT USE
- B. GEOLOGIC CONDITIONS
 - 1. Stratigraphy and volcanic history of the Yucca Mountain area
 - a. Caldera evolution and genesis of ash flows
 - b. Timber Mountain Tuff
 - c. Paintbrush Tuff
 - d. Tuffaceous beds of Calico Hills
 - e. Crater Flat Tuff
 - f. Older tuffs
 - 2. Structure
 - 3. Seismicity
 - 4. Energy and mineral resources
 - a. Energy resources
 - b. Metals
 - c. Nonmetals
- C. HYDROLOGIC CONDITIONS
 - 1. Surface water
 - 2. Ground water
 - a. Ground water movement
 - b. Ground water quality
 - 3. Present and projected water use in the area
- D. ENVIRONMENTAL SETTING
 - 1. Land use
 - a. Federal use
 - b. Agricultural
 - i. Grazing land
 - ii. Cropland
 - c. Mining
 - d. Recreation
 - e. Private and commercial development
 - 2. Terrestrial and aquatic ecosystems
 - a. Terrestrial vegetation
 - i. Larrea-Ambrosia
 - ii. Larrea-Ephedra or Larrea-Lycium
 - iii. Coleogyne
 - iv. Mixed transition
 - v. Grassland-burn site
 - b. Terrestrial wildlife
 - i. Mammals
 - ii. Birds
 - iii. Reptiles
 - c. Special-interest species

- d. Aquatic ecosystems
 - 3. Air quality and weather conditions: Air quality
 - 4. Noise
 - 5. Aesthetic resources
 - 6. Archaeological, cultural, and historical resources
 - 7. Radiological background
 - a. Monitoring program
 - b. Dose assessment
- E. TRANSPORTATION**
- 1. Highway infrastructure and current use
 - 2. Railroad infrastructure and current use
- F. SOCIOECONOMIC CONDITIONS**
- 1. Economic conditions
 - a. Nye County
 - b. Clark County
 - c. Methodology
 - 2. Population density and distribution
 - a. Populations of the State of Nevada
 - b. Population of Nye County
 - c. Population of Clark County
 - 3. Community services
 - a. Housing
 - b. Education
 - c. Water supply
 - d. Waste-water treatment
 - e. Solid waste
 - f. Energy utilities
 - g. Public safety services
 - h. Medical and social services
 - i. Library facilities
 - j. Parks and recreation
 - 4. Social conditions
 - a. Existing social organization and social structure
 - i. Rural social organization and structure
 - ii. Social organization and structure in urban Clark County
 - b. Culture and lifestyle
 - i. Rural culture
 - ii. Urban culture
 - c. Community attributes
 - d. Attitudes and perceptions toward the repository
 - 5. Fiscal and governmental structure

II. EXPECTED EFFECTS OF SITE CHARACTERIZATION ACTIVITIES

- A. SITE CHARACTERIZATION ACTIVITIES**
- 1. Field studies
 - a. Exploratory drilling
 - b. Geophysical surveys

- c. Geologic mapping
- d. Standard operating practices for reclamation of areas disturbed by field studies
- 2. Exploratory shaft facility
 - a. Surface facilities
 - b. Exploratory shaft and underground workings
 - c. Secondary egress shaft
 - d. Exploratory shaft testing program
 - e. Final disposition
 - f. Standard operating practices that would minimize potential environmental damage
- 3. Other studies
 - a. Geodetic surveys
 - b. Horizontal core drilling
 - c. Studies of past hydrologic conditions
 - d. Studies of tectonics, seismicity, and volcanism
 - e. Studies of seismicity induced by weapons testing
 - f. Field experiments in G-Tunnel facilities
 - g. Laboratory studies

B. EXPECTED EFFECTS OF SITE CHARACTERIZATION

- 1. Expected effects on the environment
 - a. Geology, hydrology, land use and surface soils
 - i. Geology
 - ii. Hydrology
 - iii. Land use
 - iv. Surface soils
 - b. Ecosystems
 - c. Air quality
 - d. Noise
 - e. Aesthetics
 - f. Archaeological, cultural, and historical resources
- 2. Socioeconomic and transportation conditions
 - a. Economic conditions
 - i. Employment
 - ii. Materials
 - b. Population density and distribution
 - c. Community services
 - d. Social conditions
 - e. Fiscal and governmental structure
 - f. Transportation
- 3. Worker safety
- 4. Irreversible and irretrievable commitment of resources

C. ALTERNATIVE SITE CHARACTERIZATION ACTIVITIES

III. REGIONAL AND LOCAL EFFECTS OF LOCATING A REPOSITORY AT THE SITE

- A. THE REPOSITORY**
 - 1. Construction
 - a. The surface facilities
 - b. Access to the subsurface
 - c. The subsurface facilities
 - d. Other construction
 - i. Access route
 - ii. Railroad
 - iii. Mined rock handling and storage facilities
 - iv. Shafts and other facilities
 - 2. Operations
 - a. Emplacement phase
 - i. Waste receipt
 - ii. Waste emplacement
 - b. Caretaker phase
 - 3. Retrievability
 - 4. Decommissioning and closure
 - 5. Schedule and labor force
 - 6. Material and resource requirements
- B. EXPECTED EFFECTS ON THE PHYSICAL ENVIRONMENT**
 - 1. Geologic impacts
 - 2. Hydrologic impacts
 - 3. Land use
 - 4. Ecosystems
 - 5. Air quality
 - a. Ambient air-quality regulations
 - b. Construction
 - c. Operations
 - d. Decommissioning and closure
 - 6. Noise
 - a. Construction
 - b. Operations
 - c. Decommissioning and closure
 - 7. Aesthetic resources
 - 8. Archaeological, cultural, and historical resources
 - 9. Radiological effects
 - a. Construction
 - b. Operation
 - i. Worker exposure during normal operation
 - ii. Public exposure during normal operation
 - iii. Accidental exposure during operation
- C. EXPECTED EFFECTS OF TRANSPORTATION ACTIVITIES**
 - 1. Transportation of people and materials
 - a. Highway impacts
 - i. Construction
 - ii. Operations
 - iii. Decommissioning
 - b. Railroad impacts

2. Transportation of nuclear wastes
 - a. Shipment and routing nuclear waste shipments
 - i. National shipment and routing
 - ii. Regional shipment and routing
 - b. Radiological impacts
 - i. National impacts
 - ii. Regional impacts
 - iii. Maximally exposed individual impacts
 - c. Nonradiological impacts
 - i. National impacts
 - ii. Regional impacts
 - d. Risk Summary
 - i. National risk summary
 - ii. Regional risk summary
 - e. Costs of nuclear waste transportation
 - f. Emergency response

D. EXPECTED EFFECTS ON SOCIOECONOMIC CONDITIONS

1. Economic conditions
 - a. Labor
 - b. Materials and resources
 - C. Cost
 - D. Income
 3. Land use
 - f. Tourism
2. Population density and distribution
3. Community services
 - a. Housing
 - b. Education
 - c. Water supply
 - d. Waste-water treatment
 - e. Public safety services
 - f. Medical services
 - g. Transportation
4. Social conditions
 - a. Social structure and social organization
 - i. Standard effects on social structure and social organization
 - ii. Special effects on social structure and social organization
 - b. Culture and lifestyle
 - c. Attitudes and perceptions
5. Fiscal conditions and government structure

IV. SUITABILITY OF THE YUCCA MOUNTAIN SITE FOR SITE CHARACTERIZATION AND FOR DEVELOPMENT AS A REPOSITORY

- A. SUITABILITY OF THE YUCCA MOUNTAIN SITE FOR DEVELOPMENT AS A REPOSITORY: EVALUATION AGAINST THE GUIDELINES THAT DO NOT REQUIRE SITE CHARACTERIZATION
1. Technical guidelines

- a. Postclosure site ownership and control
 - i. Data relevant to the evaluation
 - ii. Favorable condition
 - iii. Potentially adverse condition
 - iv. Evaluation and conclusion for the qualifying condition on the postclosure site ownership and control guidelines
- b. Population density and distribution
 - i. Data relevant to the evaluation
 - ii. Favorable conditions
 - iii. Potentially adverse conditions
 - iv. Disqualifying condition
 - v. Evaluation and conclusion for the qualifying condition on the population density and distribution guideline
- c. Preclosure site ownership and control
 - i. Data relevant to the evaluation
 - ii. Favorable condition
 - iii. Potentially adverse condition
 - iv. Evaluation and conclusion for the qualifying condition on the preclosure site ownership and control guideline
- d. Meteorology
 - i. Data relevant to the evaluation
 - ii. Favorable condition
 - iii. Potentially adverse condition
 - iv. Evaluation and conclusion for the qualifying condition on the meteorology guideline
- e. Offsite installations and operations
 - i. Data relevant to the evaluation
 - ii. Favorable conditions
 - iii. Potentially adverse conditions
 - iv. Disqualifying condition
 - v. Evaluation and conclusion for the qualifying condition on the offsite installations operations guideline
- f. Environmental quality
 - i. Data relevant to the evaluation
 - ii. Favorable conditions
 - iii. Potentially adverse conditions
 - iv. Disqualifying conditions
 - v. Evaluation and conclusion for the qualifying condition on the environmental quality guidelines
- g. Socioeconomic impacts
 - i. Data relevant to the evaluation
 - ii. Favorable conditions
 - iii. Potentially adverse conditions
 - iv. Disqualifying condition
 - v. Evaluation and conclusion for the qualifying condition on the socioeconomic guideline
- h. Transportation

- i. Data relevant to the evaluation
 - ii. Favorable conditions
 - iii. Potentially adverse conditions
 - iv. Evaluation and conclusion for the qualifying condition on the transportation guideline
2. Preclosure System
- a. Preclosure system: radiological safety
 - i. Data relevant to the evaluation
 - ii. Evaluation of the Yucca Mountain site
 - iii. Conclusion for the qualifying condition on the preclosure system guideline radiological safety
 - b. Preclosure system: environment, socioeconomic, and transportation
 - i. Data relevant to the evaluation
 - ii. Evaluation of the Yucca Mountain site
 - iii. Conclusion for the qualifying condition on the preclosure system guideline: environment, socioeconomic, and transportation
3. Postclosure technical
- a. Geohydrology
 - i. Data relevant to the evaluation
 - ii. Favorable conditions
 - iii. Potentially adverse conditions
 - iv. Disqualifying condition
 - v. Evaluation and conclusion for the qualifying condition on the postclosure geohydrology guideline
 - b. Geochemistry
 - i. Data relevant to the evaluation
 - ii. Favorable conditions
 - iii. Potentially adverse conditions
 - iv. Evaluation and conclusion for the qualifying condition on the postclosure geochemistry guideline
 - v. Plans for site characterization
 - c. Rock characteristics
 - i. Data relevant to the evaluation
 - ii. Favorable conditions
 - iii. Potentially adverse conditions
 - iv. Evaluation and conclusion for the qualifying condition on the postclosure rock characteristics guideline
 - d. Climatic changes
 - i. Data relevant to the evaluation
 - ii. Favorable conditions
 - iii. Potentially adverse conditions
 - iv. Evaluation and conclusion for the climate changes qualifying condition
 - e. Erosion
 - i. Data relevant to the evaluation
 - ii. Favorable conditions

- iii. Potentially adverse conditions
 - iv. Disqualifying condition
 - v. Qualifying condition
- f. Dissolution
- i. Data relevant to the evaluation
 - ii. Favorable condition
 - iii. Potentially adverse condition
 - iv. Disqualifying condition
 - v. Evaluation and conclusion for the qualifying condition on the postclosure and dissolution guideline
- g. Tectonics
- i. Data relevant to the evaluation
 - ii. Favorable condition
 - iii. Potentially adverse condition
 - iv. Disqualifying condition
 - v. Evaluation and condition for the qualifying condition on the postclosure tectonics guideline
- h. Human interference: natural resources and site ownership and control
- i. Data relevant to the evaluation
 - ii. Favorable conditions
 - iii. Potentially adverse conditions
 - iv. Disqualifying conditions
 - v. Evaluation and conclusion for the qualifying condition on the postclosure human interference and natural resources technical guideline
4. Post closure system
- a. Evaluation of the Yucca Mountain Site
 - i. Quantitative analyses
 - ii. Qualitative analysis
 - b. Summary and conclusion for the qualifying condition on the postclosure system guideline
5. Preclosure technical
- a. Surface characteristics
 - i. Data relevant to the evaluation
 - ii. Favorable conditions
 - iii. Potentially adverse condition
 - iv. Evaluation and conclusion for the qualifying condition on the preclosure surface characteristics guideline
 - b. Rock characteristics
 - i. Data relevant to the evaluation
 - ii. Favorable conditions
 - iii. Potentially adverse conditions
 - iv. Disqualifying condition
 - v. Evaluation and conclusion for the qualifying condition on the preclosure rock characteristics guideline
 - c. Hydrology
 - i. Data relevant to the evaluation

- ii. Favorable conditions
 - iii. Potentially adverse condition
 - iv. Disqualifying condition
 - v. Evaluation and conclusion for the qualifying condition on the preclosure hydrology guideline
- d. Tectonics
 - i. Data relevant to the evaluation
 - ii. Favorable condition
 - iii. Potentially adverse conditions
 - iv. Disqualifying condition
 - v. Evaluation and conclusion for the qualifying condition on the preclosure tectonics guideline
- 6. Ease and cost of siting, construction, operation, and closure
 - a. Data relevant to the evaluation
 - b. Evaluation
 - c. Conclusions for the qualifying condition on the ease and cost of siting, construction, operation, and closure guideline
 - 7. Conclusion regarding suitability of the Yucca Mountain Site for site characterization

B. PERFORMANCE ANALYSES

- 1. Preclosure radiological safety assessments
 - a. Preclosure radiation protection standards
 - b. Methods for preclosure radiological assessment
 - i. Radiological assessment of construction activities
 - ii. Radiological assessment of normal operations
 - iii. Radiological assessment of accidental releases
- 2. Preliminary analysis of postclosure performance
 - a. Subsystem descriptions
 - i. Engineered barrier subsystem
 - ii. The natural barrier subsystem
 - b. Preliminary performance analyses of the major components of the system
 - i. The waste package lifetime
 - ii. Release rate from the engineered barrier subsystem
 - c. Preliminary system performance description and analysis
 - d. Comparisons with regulatory performance objectives
 - e. Preliminary evaluation of disruptive events: disruptive natural processes
 - f. Conclusions

V. TRANSPORTATION

- ##### A. REGULATIONS RELATED TO SAFEGUARDS
- 1. Safeguards
 - 2. Conclusion

B. PACKAGINGS

1. Packaging design, testing, and analysis
2. Types of packaging
 - a. Spent fuel
 - b. Casks for defense high-level waste and West Valley high-level waste
 - c. Casks for use from an MRS to the repository
3. Possible future developments
 - a. Mode-specific regulations
 - b. Overweight truck casks
 - c. Rod consolidation
 - d. Advanced handling concepts
 - e. Combination storage/shipping casks

C. POTENTIAL HAZARDS OF TRANSPORTATION

1. Potential consequences to an individual exposed to a maximum extent
 - a. Normal transport
 - b. Accidents
2. Potential consequence to a large population from very severe transportation accidents
3. Risk assessment
 - a. Outline of method for estimating population risks
 - b. computational models and methods for population risks
 - c. Changes to the analytical models and methods for population risks
 - d. Transportation scenarios evaluated for risk analysis
 - e. Assumption about wastes
 - f. Operational considerations for use in risk analysis
 - g. Values for factors needed to calculate population risks
 - h. Results of population risk analyses
 - i. Uncertainties
4. Risks associated with defective cask construction, lack of quality assurance, inadequate maintenance and human error

D. COST ANALYSIS

1. Outline method
2. Assumptions
3. Models
4. Cost estimates
5. Limitations of results

E. BARGE TRANSPORT TO REPOSITORIES

F. EFFECT OF A MONITORED RETRIEVABLE STORAGE FACILITY ON TRANSPORTATION ESTIMATES

G. EFFECT OF AT-REACTOR ROD CONSOLIDATION ON TRANSPORTATION ESTIMATES

H. CRITERIA FOR APPLYING TRANSPORTATION GUIDELINE

I. DOE RESPONSIBILITIES FOR TRANSPORTATION SAFETY

1. Prenotification
2. Emergency response
3. Insurance coverage for transportation accidents

J. MODAL MIX

1. Train shipments
 - a. Ordinary
 - b. Dedicated train
2. Truck shipments
 - a. legal weight
 - b. overweight

ATTACHMENT 8



Department of Energy
Washington, DC 20585

MAR 07 1988

Licensing Support System Negotiated
Rulemaking Participants:

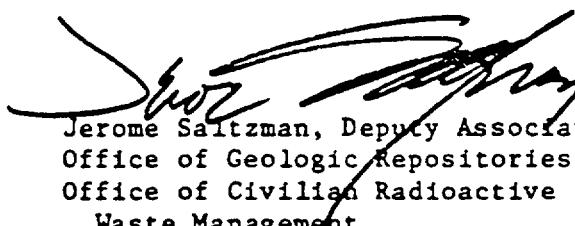
As was agreed at the January 25, 1988, LSS Negotiated Rulemaking session in Las Vegas, NV, I am enclosing for your information and review the Department of Energy's (DOE) proposed "excludable" and "includable" lists as they relate to potentially discoverable records.

The proposed excludable list is separated into two general categories: material not appropriate for the LSS; and, material not appropriate for enhanced full text.

The includable list contains a listing of those general types of records that the DOE would propose be entered into the LSS in enhanced full text.

If you have any questions relating to either of the two proposed lists, please give me a call. I may be reached at (202) 586-9692. I look forward to seeing you at the next negotiating session in Reno on March 22-24, 1988.

Sincerely,



Jerome Saltzman, Deputy Associate Director
Office of Geologic Repositories
Office of Civilian Radioactive
Waste Management

Enclosures



LICENSING SUPPORT SYSTEM

ENHANCED FULL TEXT

INCLUDABLE LIST FOR ALL PARTIES

PROPOSED BY THE DEPARTMENT OF ENERGY

Relevant records of all parties (except those where an appropriate privilege applies) related to the HLW licensing decision to be placed in the LSS in enhanced full text.

- Technical reports and analyses including those developed by contractors
- QA/QC records including qualification and training records
- External correspondence
- Internal memoranda
- Meeting minutes, including DOE/NRC meetings, Commission meetings
- Drafts (i.e., those submitted for decision beyond the first level of management or similar criterion)
- Congressional Q's & A's
- "Regulatory" documents related to HLW site selection and licensing, such as:
 - Draft and final environmental assessments
 - Site Characterization Plans
 - Site Characterization progress reports
 - Issue resolution reports
 - Rulemakings
 - Public and agency comments on documents
 - Response to public comments
 - Environmental Impact Statement, Comment Response Document, and related references
 - License Application (LA), LA data base, and related references
 - Topical reports, data, and data analysis
 - Recommendation Report to President
 - Notice of Disapproval, if submitted

LICENSING SUPPORT SYSTEM

EXCLUDABLE LIST FOR ALL PARTIES

PROPOSED BY THE DEPARTMENT OF ENERGY

MATERIAL NOT TO BE INCLUDED IN THE LICENSING SUPPORT SYSTEM

Public Domain Material

- Official notice material, such as encyclopedias, dictionaries, and text books
- Bulk/public correspondence
- General press clippings, periodicals, press releases, and circulation/direct distribution mail
- Procurement material, such as purchase orders, contract records, and RFP's (some material may also be privileged)
- Interagency agreements
- Staff speeches & publications
- Report references

Personal Records

- Personal mail and other personal material, such as calendars and telephone logs
- Handwritten notes
- Documents otherwise captured, but containing marginalia
- Electronic mail

MATERIAL INCLUDED IN THE LSS BUT NOT IN ENHANCED FULL TEXT

Unsuitable Form

- Raw data
- Computer runs
- Computer programs & codes
- Field notes
- Maps & photographs
- Core samples

Privileged Material

- Information protected by FOIA and Privacy Act
- Classified material including Safeguards and Security information
- Personnel records, travel requests and vouchers

ATTACHMENT 9

MAR 10 1988

TO: HLW Licensing Support System Advisory Committee Members
FROM: Chip Cameron, NRC *Chip Cameron*

In preparation for the March 22 - 24, 1988 meeting of the Advisory Committee, I have enclosed the following material:

1. NRC consensus positions on--

Format (issue 6)
Submission of documents (issue 7)
Security (issue 17)
Use of LSS at hearing (issue 26)

2. NRC comparative text revisions to the proposed consensus statements prepared and distributed by the Conservation Foundation on February 11, 1988.

cc: Tim Mealey, Conservation Foundation

FINAL CONSENSUS ISSUE 6 (FORMAT)

Standardized electronic format for text, document image, and bibliographic header must be established.

Using the NRC draft format standards as a framework for discussion, the technical subcommittee should recommend a standard format to the full committee.

DRAFT

ASCII FORMAT FOR SUBMISSION OF DOCUMENTS (MACHINE READABLE FORMAT)

The following is a recommended format for submitting ASCII (machine readable) text files to the LSS. When the LSS is designed this format will change to accommodate the requirements of the particular software package which will be used for text retrieval. Until such time, information created after July 1988 and designated to go into the LSS should be saved with the hard copy as follows:

1. Word processing packages such as Displaywrite, Wordperfect, Multimate, Wordstar and others have an ASCII save feature. Documents should be saved as ASCII files on industry standard 5 1/4 double sided, double density floppy disks. The new 3 1/2 inch diskettes are also acceptable.

The technical specifications for the ASCII format is as follows:

The text shall be formatted in lines no longer than 80 characters, terminated by a carriage return, line feed (HEX OD OA). The DOS end of file character (HEX 1A) will also be allowed as a file terminator. Except for these three "control codes" all text characters shall be drawn from the 95 printing characters with ASCII representation from HEX 20 through HEX 7E as per specification ANSI X3.4-1977. The eighth bit of each byte, nor required for the representation of ASCII characters, shall be set to 0. The use of underlining and bold effects should not be used since corresponding ASCII codes do not exist. In the event that they are used, further "clean-up" of the ASCII files will need to be performed prior to input into the LSS.

The ASCII file shall be assigned the file name: NAME.ASC and should be capable of display using the DOS command TYPE NAME.ASC.

If magnetic tape is used to submit large files, the following standard should be used:

Magnetic tape should be 9 track, reel to reel 1600 BPI with a fixed 80 character length (padded to the right with spaces if necessary), meeting the requirements of ANSI X 3.39-1973.

2. Each diskette should be labeled with the following

- Document(s) name (could have a collection of letters)
- File(s) (ASCII) name in the format NAME.ASC
- Author, organization, telephone #
- Date prepared
- A printed directory of the diskette

3. An original hard copy of the document printed in either 10 or 12 pitch on a laser, daisywheel, or near letter quality (not dot matrix) shall be submitted with the machine readable copy.

NRC FINAL CONSENSUS ISSUE 7 (SUBMISSION OF DOCUMENTS)

Each party shall submit to the LSS Administrator an electronic accessions list of all documents and other material for which it is responsible and that are encompassed by the scope of the LSS. This list shall designate, in chronological order, those items that are to be entered in searchable full text, image only, or merely identified by header in the LSS.

For those documents required to be included in the LSS in searchable full text, the party shall submit a machine readable file (ASCII), an image, an a header for each document. If a document is not to be in the LSS in searchable full text, submission of an image of the document and a header will be sufficient. For material that can only be identified in the LSS (e.g. soil samples), a header shall be provided.

Submission of lists, ASCII files, images, and document headers shall be in accordance with the guidelines established by the committee.

NRC FINAL CONSENSUS ISSUE 17 (SECURITY)

The LSS must employ safeguards to ensure the security and confidentiality of the material stored in the LSS.

The major security issues that must be addressed are identified in the February 3, 1988 memorandum from Diehl to Bender (attached).

These security issues should be supplemented as needed by the Negotiating Committee.

The final list of security issues must be considered in the design of the LSS.



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

FEB 3 1988

MEMORANDUM FOR: Avi Bender, Project Manager
Transitional Licensing Support System Planning Staff
Office of the Deputy Director For Information
Resources Management
Office of Administration and Resources Management

FROM: David J. Diehl, Chief
Computer and Telephone Operations Branch
Division of Information Support Services
Office of Administration and Resources Management

SUBJECT: Security Requirements for the Transitional Licensing Support System(TLSS)

Attached, as required by the Transitional Licensing Support System(TLSS) Operating Plan, January 1, 1988, is a report that has been prepared which reviews and addresses the security issues associated with the development and implementation of the TLSS system. Because the system will contain proprietary, privileged, and culturally sensitive documents, it is recommended that the TLSS be identified as an NRC Sensitive Unclassified Application System and protected accordingly. It is essential that this decision be made as soon as possible because all other system security decisions will have to be based upon this determination.

If you have any questions, please contact Mr. Louis H. Grosman on x25019.

David J. Diehl

David J. Diehl, Chief
Computer and Telephone Operations Branch
Division of Information Support Services
Office of Administration and Resources
Management

Attachments:
As stated

Computer Security Considerations for Transitional Licensing Support System

Every computer system, regardless of size or complexity of application must employ safeguards to ensure the security and confidentiality of the data processed or stored within it. The process of protecting the information and physical assets of a computer system is known as computer security. It is an integration of elements from a variety of different fields:

- Personnel Security - NRC employees (including consultants) are subject to a background investigation under 145b. of the Atomic Energy Act of 1954, as amended. NRC contractors and subcontractors are responsible for determining an employee's eligibility for access to sensitive unclassified NRC systems or data (See NRC Appendix 2301, Part II).
- Physical Security - Measures required (locks, guards, badges) for the protection of the structures housing the computer, related equipment, and their contents from damage by accident, intentional action, fire or environmental hazards.
- Emanations Security - Measures taken to deny unauthorized persons information of value which might be derived from intercept and analysis of compromising emanations (signals) from ADP and telecommunications systems.
- Procedural Security - The management constraints; operational, administrative, and accountability procedures; and supplemental controls established to provide protection for sensitive information and systems.
- Hardware Security - Equipment features or devices used in the ADP system to preclude deliberate or inadvertent unauthorized acquisition, disclosure, manipulation, or modification of data.
- Software Security - Computer programs and routines used to preclude deliberate or inadvertent unauthorized access or acquisition, disclosure, manipulation, or modification of data.
- Communications Security - The protective measures, hardware and software, taken to deny unauthorized persons information desired from telecommunications of data and to ensure authentication of any such communications.
- Security Management - Staff required to develop, establish, and implement management constraints, operational procedures, and supplemental controls to provide an acceptable level of protection for the system and data.

- Media Security - The protective measures taken to deny unauthorized persons access or use of documents, reports, tape reels, floppy diskettes, optical disks or any other peripheral device related physical component used for storage of data or source document.
- Information Security - An Automated Information System and communication security system of administrative policies and procedures for identifying, controlling, and protecting information from unauthorized disclosure.
- Disaster Recovery - The development of a contingency plan to provide for emergency response, backup operations, and post-disaster recovery. It would include provisions for the recovery of data files and program libraries, and for restart or replacement of ADP equipment after a system failure or disaster.

When correctly selected, these constituent parts can be assembled into a program to safeguard data from unauthorized disclosure, modification and destruction.

The first step in a data safeguards program is to determine if the Transitional Licensing Support System (TLSS) will contain any sensitive unclassified data. The system may not, under any circumstances, contain classified data. The definition of sensitive unclassified data can be found in NRC Appendix 2101, Part I, "Definitions". If TLSS does contain sensitive data, then it must be protected according to NRC Appendix 2301, Part II, "Security of Automated Information Systems." This includes the designation of a Systems Security Officer and the preparation of a System Security Proposal. Considering that some of the documents in the system might not be accessible to some of the system users for various reasons, including the need to protect lawyer-client privilege or other confidentiality agreements, this system should be identified and protected as a NRC Sensitive Unclassified System. Because it is not clear yet where the system will be installed, who will operate and maintain it, how it will be accessed, who will have access to it, or what combination of hardware and software will be used, certain elements of the total computer security program can not be identified and spelled out. However, some specific requirements must be addressed and included in any finalized system proposal.

For the TLSS, control of access to system resources such as files, records, and other computer information and program resources as well as maintenance of integrity of the data base are of a primary concern for both management and the users. Specify and select equipment (hardware and software) with strong password control systems, and the ability to accept the use of software packages designed to restrict user access to information strictly based on need-to-know and ownership principles. Utilization of access control software products is recommended because of their ability to (1) limit user access to information and system resources based on ownership and need-to-know; (2) monitor user activity; and (3) report on security violations for follow-up. The obvious benefits of database in modern data processing environment ensure that they will continue to be developed and utilized. The database system selected and deployed must include a high degree of access control because of the massive concentration of information. The first line of defense is strong system or mainframe access control. Existing mainframe access control software products can protect access to databases at the file level, but database

design does not necessarily depend on this file structure; a single database can be spread across several files or one file can contain several databases. Therefore, simple file access control techniques are ineffective. Once access is gained to the file, unrestricted access to anything within the file is allowed, whether it be a single- or multiple-database environment.

While there is no simple solution to these technological "opportunities," there are measures which we can take to help limit the inherent exposures which exist. First is the logical identification and authentication of all users to the systems which have access to the database. Checking and granting authorities is a technical process which occurs within the architectural structure of the database. This would include the development of specific rules to regulate and control who can read and update data, as well as what data a specific individual can and can not access.

This process requires the talents of technicians familiar with a database and information security to be successful; the technicians should be consulted early in the development of the organization's data base implementation plan.

Full utilization of existing database access control software, as well as the installation and maintenance of mainframe access control, is a must. The TLSS security staff must also ensure that standards and procedures which govern the rules of access to the database are developed and implemented. It is important that the information security officer and the database administrator cooperate in planning for access control within the database environment, because they both have a stake in the success of security measures.

Security Awareness and Training as an integral part of the overall TLSS development effort cannot be overemphasized. Security awareness is the key to limitation of exposure and is the best security tool in addressing and reducing loss to organizations through the accidents, errors, and omissions of insiders. Security Awareness and Training will also help to limit exposure by maintaining user awareness of what constitutes an exposure and how to deal with it. All users of the system should be required to attend training sessions which will enhance their awareness of the need to ensure the protection of data in the system as well as system resources and capabilities.

The concentration of information in computers, like the concentration of cash in a vault, has mandated sophistication of the controls which protect that information. Access controls are at the core of, and must be included in, any information security program intended to protect the TLSS information assets from accidental or intentional disclosure, modification, destruction, or denial. Once the system is more defined, other features will need to be added to round out the whole security program.

Draft Proposed Consensus on Issue 26
(LSS Use by Participants During the Licensing Proceeding)

1. A file will be established within the LSS to contain the "official record" of the HLW repository licensing proceeding, commencing with the filing of DOE's application. (If pre-application adjudicatory boards are used to resolve discovery and other disputes that arise before the filing of DOE's application, the pleadings, documents, and orders involved in such disputes will be included in a separate file within the LSS.) This official record file will include, for example, DOE's application; motions, replies, proposed findings, briefs, and other pleadings of the parties; Licensing Board, Appeal Board, and Commission orders and decisions issued in the proceeding; transcripts of prehearing conferences, the hearing, and oral arguments; and exhibits identified for the record at the hearing.

With the exception of certain types of exhibits and other evidence (e.g., soil samples, maps, handwritten notes), all documents, transcripts, etc. included in the official record of the proceeding will be entered into the LSS in searchable full text. For those documents or materials for which searchable full text is not feasible, a short description of the material shall be prepared by the sponsoring party and submitted for entry into the LSS in searchable full text. The LSS official record file will also contain a list of all exhibits, showing where in the transcript each was marked for identification and where it was received into evidence or rejected. Transcripts and exhibits will be entered into the LSS on a daily basis (i.e., next-day availability during the hearing).

2. All filings in the adjudicatory proceeding (including pleadings generated during the pre-application phase that require dispute resolution) will be transmitted electronically to the board(s), parties, and Commission Secretary, with immediate telephonic notification to the recipients of such transmittals. Filings shall also be submitted to the LSS administrator in accordance with the requirements for submission of documents into the LSS (see Issue 7). (If the LSS is so designed, separate electronic transmission of pleadings to the board(s), parties, and Commission Secretary may not be necessary.) In addition, for purposes of authentication and verification, one hard copy of each filing shall be served promptly on the Commission Secretary by regular mail. Board and Commission issuances will be handled in the same manner (i.e., electronic transmission of orders and decisions to the parties and submission to the LSS administrator).

3. Online access to the entire LSS shall be provided to the board(s), the parties' representatives, and the witnesses (while testifying) for use during the hearing. Reliance on LSS material during the hearing is subject to the rulings of the board(s) concerning what will be identified as part of the official record file. Use of hard copy or images thereof will also be permitted during the hearing.

NRC REVISION TO CONSERVATION FOUNDATION PROPOSED CONSENSUS
STATEMENT NO. 1

Discoverable records material means any record information that is relevant or likely to lead to the discovery of information that is relevant to the licensing of a geologic repository for the disposal of high-level nuclear waste under regulations set forth in 10 CFR Chapter 1, including but not limited to (INSERT categories of records agreed upon by the committee).

NRC REVISION OF CONSERVATION FOUNDATION PROPOSED CONSENSUS
STATEMENT NO. 2

1. Discoverable records will be separated into two categories:

Prospective -- Records generated in electronic format. Records generated after July 1, 1988. These records include any and all records generated after July 1, 1988 (the date on which it is presumed that all discoverable documents generated at DOE will be generated and captured in an electronic format), as well as all records generated prior to this date which, in fact, have been generated in electronic format.

Backlog -- Records not generated in electronic format. Records generated before July 1, 1988. These records include discoverable records generated prior to July 1, 1988, provided that such records have, in fact, not been generated in electronic format.

2 through 6 - no change.

7. Notwithstanding the above, potential parties to the licensing proceeding may request that another party's discoverable records be entered into the LSS in searchable full text if they or the other party intend to rely on such records during the licensing proceeding. If a party declines to enter those records, the LSS dispute resolution mechanism will apply.

NRC REVISION TO CONSERVATION FOUNDATION PROPOSED CONSENSUS
STATEMENT NO. 3

A.

1. The attorney/client and attorney work-product privileges may be relied on by all parties to the licensing proceeding to withhold records from the unprotected searchable full text portion of the LSS.

2. The privileges will be applied in accordance with interpretations under the Federal rules of discovery and evidence in NRC case law.

3 and 4 - no change.

B.

1 and 2 - no change.

3. All records for which a deliberative process privilege is claimed shall be identified in the same manner as A.3 above, reasonable contemporaneously, with the creation of the record, and A.4 above.

4. To the extent that the committee agrees on the use of a pre-licensing board to hear and resolve discovery disputes, DOE agrees to be bound by decisions of that board on the issue of whether the AIWPA limits the availability of the deliberative process privilege to DOE.