

## INFORMATION MANAGEMENT AND NRC LICENSING:

### INTERVENOR'S PERSPECTIVE

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#### ABSTRACT

The NRC licensing of a high-level waste repository will place extraordinary information management demands on its participants. The large volumes of information and long timeframes in the program strongly support the efficacy of automated solutions. DOE is currently considering establishment of a computerized licensing support system (LSS), and NRC is considering institution of a negotiated rulemaking to amend its procedural rules for licensing to accommodate such a system. However, because the actual ability of affected parties to influence key programmatic decisions diminishes with time, the need for affected parties to gain ready access to repository data arises long before the formal licensing proceeding. The best and most efficient way to achieve a workable information management system in time to be useful is to develop the pilot system already set up by the NRC staff as an interim system, to subsequently develop that system into the full-blown LSS, and to retain its management within NRC. Appropriate means should be found to reimburse NRC for the costs of such a system from the Nuclear Waste Trust Fund.

#### THE INFORMATION ENVIRONMENT

A combination of extraordinary factors will pose unprecedented information management challenges to participants in the U.S. Nuclear Regulatory Commission (NRC) licensing proceedings for high-level radioactive waste repositories. Those factors include the long timespans involved, complexity of issues and consequent volumes of information, number of participants, and the "information wealth" of those participants.

The implementation process for the federal high-level radioactive waste repository program is quite lengthy as federal programs go. Not counting several earlier, abortive efforts, the Department of Energy's (DOE) internal investigations, which commenced in the absence of a comprehensive statutory framework, have now been ongoing for a decade. The Nuclear Waste Policy Act (NWPA) (1) is just over four years old. DOE's latest published schedule calls for submittal to NRC of a license application for a first repository eight years from now, in 1995, and NRC's decision on the application eleven years from now, in 1998. (2)

Most of the individuals involved in the program today will probably have left the program before a repository begins accepting waste in the first decade of the 21st century. In such circumstances, the related problems of information management and institutional memory take on added significance.

Another crucial factor contributing to the extraordinary information management problems in this program is the high degree of scientific complexity and uncertainty. In numerous respects, the scientific determinations that must be made in the course of siting, licensing, operating, and monitoring a repository are at the limits of our knowledge, both in the earth sciences, and engineering sciences. Predicting the behavior of engineered and natural systems for tens of thousands of years is not an activity with which we have much experience.

A consequence of this scientific complexity and uncertainty is that enormous quantities of data,

analyses, reviews, and other information are being generated in an effort to reduce the complexities and uncertainties to proportions that permit reasoned decisions to be made. The NRC Waste Management staff has estimated that millions of pages of documents will be generated in this program. Keeping track of that much information will be no small task.

Another unique aspect of the repository licensing information environment is the large number of knowledgeable, well-funded parties involved. It is instructive to compare a typical NRC nuclear power plant licensing proceeding with the situation that is expected to prevail in a repository licensing proceeding.

In reactor licensing proceedings, the applicant (an electric utility company) and the NRC staff have typically interacted informally for several years before the licensing proceeding officially commences. During this pre-regulatory period, the utility works on its license application, and the agency staff reviews it, back and forth, until the two attain essential agreement that the application is complete and acceptable for docketing.

This staff determination of "completeness" of the application is not supposed to prejudice the Commission's licensing decision in any way. The Commission staff is formally just one party to the proceeding, which must prove its case to the Atomic Safety and Licensing Board like any party. It does, however, signify the Commission staff's general agreement with the applicant that the proposed facility is a good idea. We are aware of no instance in which the Commission staff opposed the licensing of a facility once it had certified the completeness of the application.

It is only when the license application is formally docketed that notice appears in the Federal Register and in general circulation newspapers in the vicinity of the proposed plant. It is only after such notice that petitions by any other party to intervene in the licensing proceeding are in order. Potential intervenors generally have little or no knowledge of or

access to detailed information about the application until it is formally docketed and the Federal Register notice appears. They play no role in the formative process of the NRC staff coming to a state of general satisfaction about the sufficiency of the application.

This is the crucial point for purposes of the present discussion. The practical significance of the timing of these events is that by the time potential intervenors first have the opportunity to get involved to any appreciable degree, the NRC staff has already become, in practical terms, an ally of the applicant in support of the application. The informal pre-regulatory give and take, through which the NRC actually accomplishes much of its regulatory impact on the proposal, takes place in private meetings and exchanges of documents between the applicant and the NRC staff. There is no public participation in this process. Public participation in the NRC licensing process, which has long been under attack by the nuclear industry and DOE as unnecessarily obstructionist, does not really begin until after most of the crucial early decisions have been made about the need for, economic feasibility, location, and design of the facility.

Potential intervenors, if they are opponents of the facility or wish to see safety or environmental protection measures enhanced, face insurmountable odds under these circumstances. They must get up to speed very quickly and develop "contentions" which, if they are admitted and survive summary disposition motions by the applicant and NRC staff, will become the issues to be litigated in the formal licensing hearing. Although the burden of proof is nominally on the applicant to show the adequacy of the application, the fact that the Commission staff is invariably supportive of the application once formal licensing commences effectively shifts the burden to opponent intervenors to show why the facility should not proceed as planned.

Because intervenors have been excluded from the formative pre-regulatory period, and generally lack the resources to independently generate data and analyses about the proposed facility, they have a severe information deficit relative to the applicant and NRC staff. As a result of these information-poor circumstances of intervenors, the traditional legal discovery process--depositions, written interrogatories, and requests for production of documents (3)--is crucial to the development of their cases. This is particularly the case where, as is usually true, the intervenors' limited resources require them to rely primarily on cross-examination of applicant and staff witnesses rather than presentation of an affirmative case of their own.

In sharp contrast to the typical nuclear power plant licensing proceeding, the "information wealth" of some of the potential intervenors to the repository licensing proceeding will be very different. Because the NWPA prescribes an active role, with funding from the Nuclear Waste Trust Fund, for host states and affected Indian tribes throughout the repository siting and development process (4), the pre-regulatory interactions of NRC staff and the applicant--in this case DOE--are supposed to occur in consultation with the states and tribes, rather than in closed meetings.

Moreover, at the time the license application is filed with NRC, the host state and any affected Indian tribes will have been engaged in professionally-staffed, NWPA-funded programs with years of experience actively reviewing the siting and characterization activities of DOE and NRC. Assuming that they will take their consultation and cooperation role seriously,

they will be in much better shape information-wise than the typical reactor licensing intervenor.

However, there are many significant exceptions to this radically different information status of potential host state and tribal intervenors in a repository licensing. Citizens' groups, industry groups, local governments, neighboring states, neighboring Indian tribes not deemed "affected" under the NWPA, corporations, and individuals will not have the benefit of NWPA funding or NWPA-mandated consultation and cooperation. These potential intervenors--who have made up the overwhelming majority of intervenors in reactor licensing cases--may find themselves in the same information- and resource-poor state that characterizes reactor licensing intervenors. The plight of these non-preferred parties in the repository licensing proceeding is discussed further below.

Besides years of active involvement in the program, another factor which might improve the information wealth of potential repository licensing intervenors is the development and availability of automated information systems. Computerized information systems are not the answer to everybody's dreams. They do, however, have a lot to offer by way of improving the ability to locate relevant data quickly. Automated full-text searchable systems such as Lexis, Westlaw, and Nexis have become staples of legal and general research in recent years. While they do not entirely supplant traditional research, most lawyers who have used these automated services are not anxious to be without them.

To the extent that the information wealth of the states and tribes will actually be enhanced by their participation in the formative stages of the process, and by improved access to information through the use of automated systems, the importance of legal discovery during licensing may be correspondingly reduced. (Note that this is very different from the statement, which has unfortunately been made to the NRC Commissioners by the NRC Executive Director for Operations, that discovery can be eliminated.)

#### THE PROPOSED LICENSING SUPPORT SYSTEM

The Policy and Program Planning Branch of the NRC Division of Waste Management recognized early the crucial role that information management would play in the repository licensing process. They surveyed the Commission's existing document control and other information management systems and concluded that the information management demands of the repository licensing program would severely overtax those systems.

NRC Staff began informal discussions with DOE headquarters and project offices, and states and Indian tribes during 1983-84, putting forward the idea of a full-text automated data storage and retrieval system for the repository licensing program. NRC Staff began designing and implementing pilot projects for information management and issues tracking within NRC at the same time. The stated purpose of these pilot systems is to "demonstrate document storage and retrieval capabilities and to develop processes that could lead to an interim system for use within the NRC (and possibly by others) until the DOE's full information management system ... is implemented." (5) It is not the present intent of NRC, however, to itself implement a full system. That role under present plans is left to DOE.

The DOE Office of Civilian Radioactive Waste Management, with widely disparate information management resources and systems at its respective project offices and contractors, was somewhat slower to tackle the

information management issue, but during 1986 has agreed on the need for a comprehensive automated system, which it calls a Licensing Support System (LSS). With the assistance of the DOE Office of Scientific and Technical Information at Oak Ridge National Laboratory, and consulting contractors, OCRWM has conducted a survey of its existing information management resources at headquarters, the project offices, and contractors. OCRWM expects to issue a Request for Proposals for design and implementation of a comprehensive system early in 1987.

DOE and NRC have formed an Interagency Coordinating Committee (ICC) on the Licensing Support System to advise DOE in its initial design and implementation of the system, and have actively encouraged participation by states and affected Indian tribes, and to a lesser extent, by citizens' groups.

Under the pressure of the NWPA schedule calling for an NRC decision on the repository licensing within 3 years of receipt of the application, with a possible 12 month extension for good cause (6), the NRC sees modern telecommunications technologies as means of "streamlining" the licensing process. The primary mechanisms for doing so are by using electronic mail to virtually eliminate the time required for service of documents by mail, and by establishing a centralized, full-text, computerized database (LSS), funded and managed by DOE, to drastically reduce the time required for discovery. (7)

The proposition that electronic mail can effectively eliminate the very time-consuming process of waiting for mailed filings to arrive is unarguable. With various contractors dispersed across the country, the Nuclear Waste Program of the Yakima Indian Nation has been a regular heavy user of MCI Mail for more than two years. The constant need for fast turnaround on review, consolidation, editing, and revision of draft submissions by various components of the YIN Nuclear Waste Program has made the ability to instantly transmit editable documents and messages a vital capability for the program. The YIN believes that electronic mail should already be a standard means of communication among all the interested parties in this program.

The second proposition--that early availability of a comprehensive, secure, and reliable electronic database with all relevant licensing documents would obviate much of the need for discovery--is also unarguable. However, in this case, achieving the stated conditions is much more difficult. To the extent that the LSS does not contain all the relevant data, or is not in place well in advance of the licensing proceeding, or is not secure and reliable, discovery may still be necessary.

#### NRC NEGOTIATED RULEMAKING

After fairly extensive discussions with the DOE and potential host states and affected Indian tribes, the NRC published, in December 1986, a Federal Register notice (8) that it is undertaking a rulemaking to revise its Rules of Practice for Domestic Licensing Proceedings, codified at 10 CFR Part 2, to accommodate the improved information environment that will hopefully characterize repository licensing proceedings. The Commission has also decided that this issue may lend itself to the still fairly novel technique called "negotiated rulemaking."

Under this proposal, the Commission is considering forming an advisory committee under the Federal Advisory Committee Act (9), consisting of representatives of all the major stakeholders, "to attempt to

negotiate a consensus on proposed revisions related to the submission and management of records and documents for the HLW licensing proceeding." (10) If a consensus on a proposed rule is reached by the negotiating committee, the Commission has committed to issue the consensus position as a proposed rule, "unless the Commission finds that the proposed rule is inconsistent with its statutory authority or not appropriately justified." (11) The proposed rule would then be subject to the usual administrative notice and comment rulemaking procedures. "Adoption of any final rule will be based on consideration of any comments received on the proposed rule and other materials constituting the rulemaking record." (12)

The Commission's decision to attempt to fashion these rule revisions by negotiated rulemaking is highly commendable. Affected states and Indian tribes have been seeking opportunities ever since the NWPA was passed to participate early in the decision-making processes of the federal agencies responsible for implementing this program. With respect to the primary implementing agency, DOE, these efforts to gain input to the process prior to the development of hardened positions within the agency have been singularly unsuccessful. By contrast, the Commission's ambitious undertaking to involve affected parties in the rule development process is most gratifying. From the perspective of an affected party, this type of process should be considered for development of substantive rules as well as procedural ones.

The Commission's Federal Register notice notes, "The likelihood of developing a consensus in this area is high because of the mutual benefits that could be realized by all parties." (13) But the potential for success in this endeavor is far from certain. It is certainly correct that the ready availability of all relevant information will benefit all parties. It is also correct that the use of electronic mail would eliminate much wasted time. What is less clear is the proposition that the promised LSS will perform as advertised, be as comprehensive as it needs to be, and be available sufficiently early to justify the rule changes NRC is contemplating.

The likelihood of developing a consensus depends more than anything else on the degree to which the objectives of the parties are conflicting. The NRC has already made clear that its primary objective in the Part 2 amendment rulemaking will be to limit the time required for discovery, and for service of documents. DOE, too, is interested primarily in achieving the greatest expedition in the repository licensing proceedings.

The objectives of potential intervenors in the Part 2 rulemaking will be to safeguard the potential utility (meaningfulness) of their participation in the licensing proceeding by making sure that timely access to necessary information is not unjustifiably curtailed. During negotiations, potential intervenors will in effect be asked to agree to a fairly difficult proposition. Namely, they will be asked to accede now (in the late 1980's) to curtailment of their rights to discovery in a future (late 1990's) licensing proceeding, on the basis of a promise that their information needs will be so well served by a DOE-managed LSS that there will be little or nothing left to discover.

Some of the details of NRC's conceptual vision for the LSS add to the concerns of potential intervenor parties. The NRC's lawyers have made it clear that they hope to compel the submission to the LSS of all documents--whether public or privileged--by all parties--whether or not they are affected states or

Indian tribes with NWA funding for participation in the program. They contemplate the establishment of sanctions for withholding data. (14) According to this conception, privileged documents--those not normally subject to discovery such as confidential attorney-client communications or pre-decisional documents of agencies--must be included in a protected part of the LSS in order to facilitate timely resolution of disputes as to their discoverability. Thus, when a Licensing Board rules that a particular disputed document must be produced, it can instantly be made available to the parties by simply moving it to the unprotected portion of the system. It is probably safe to assume that this aspect of the proposal gives pause to DOE as well as to potential intervenors.

The proposed requirement for universal participation in the LSS seems reasonable for affected states and Indian tribes that are receiving NWA participation funds. But it is less clearly fair with respect to citizens' organizations, local governments, neighboring states, or individuals who may choose to intervene in the repository licensing. Many such potential parties are not even identifiable now, yet their rights in the future proceeding will be seriously affected by the resolution of issues in the forthcoming rulemaking. Others, such as individuals or small citizens' groups, may find that compulsory joinder in the computer age is too costly a ticket to the protection of their interests in the licensing proceeding.

In addition, there is a myriad of potential problems in defining the proper representatives on the negotiating committee for the rulemaking, and the procedures for the negotiations.

The Commission staff is well aware that these and other issues are controversial and potentially quite contentious, but they are optimistic that a satisfactory resolution can be reached in the context of the negotiated rulemaking. The Federal Register notice includes a fairly comprehensive preliminary listing of the issues that might be considered by the negotiating committee. It is worthwhile to reproduce that listing here:

- \* What categories of information will be relevant to the HLW licensing decision, and therefore should be placed in the LSS?
- \* What timeframe should be used for the identification of relevant documents?
- \* How should drafts, handwritten notes, and handwritten annotations be handled?
- \* What rules should apply to privileged information i.e. what documents are privileged and at what point in time should they be placed in the LSS?
- \* At what time will parties, or potential parties, to the licensing proceeding be required to enter documents into the LSS? How can the early entry of data be encouraged?
- \* What organization will be responsible for administering the LSS?
- \* What procedures should be established to ensure that all relevant documents are entered into the LSS?
- \* What procedures will apply to any documents that are incorrectly excluded from the LSS?

- \* What measures, including sanctions, will be used to ensure that all relevant documents are entered into the LSS?
- \* How will the authentication of documents be handled?
- \* What security measures are necessary to protect the information in the LSS?
- \* What format should be used for the entry of documents into the LSS?
- \* Should all documents be entered in full text?
- \* Where will system access terminals be located and what types of assistance will be available on using the system?
- \* How will electronic submission of documents be handled? (15)

#### KEY ISSUES

The Commission's listing of potential issues is fairly comprehensive, and does not purport to be exclusive. The remainder of this paper will discuss in greater detail two of these issues: 1) When is the LSS needed? and 2) Who should implement and manage it?

#### Can the LSS be operable in time to be useful?

The answer to this question depends on the participants. To affected Indian tribes and states, better access to information is arguably more important right now, and throughout the characterization period, than it will be during the formal licensing proceedings. This proposition merits some discussion.

If it is to have any meaning at all, the consultation and cooperation which the NWA requires between the federal government and affected states and Indian tribes (16) must manifest itself as the ability, and the opportunity, to substantively affect the crucial decisions being made. A common characteristic of such controversial decisions is that the possibility of affecting or influencing them tends to diminish with time. This results because as institutional inertia and political inevitability build, and billions of dollars are spent in pursuit of a course of action, it becomes more and more difficult to turn back. This is particularly true where doing nothing is not a viable option.

It is worth looking at the situation that will probably prevail at the time the NRC receives an application for construction authorization for a repository. The lucky winning site will have "survived" many years of intense scrutiny. The host state or Indian tribe will almost certainly have vetoed the designation, and Congress and the President will have overridden that veto. The Commission staff will have certified that the application is complete and suitable for docketing, and will support the construction authorization. (No rational applicant would file an application if this were not the case.) The DOE Environmental Impact Statement for the repository may "have been determined adequate as a matter of law in the Federal Courts...." (17) Under current plans, something on the order of 4 to 6 billion dollars will have been spent getting to that point in the program.

Moreover, if DOE's outrageous suggestion for direct linkage between the acceptance of waste at a

Monitored Retrievable Storage facility and authorization to construct a repository is enacted, that manifestly extraneous consideration will be an additional loaded gun pointed squarely at the heads of the Commissioners. Finally, it cannot escape notice that in the entire 35-year-plus history of reactor licensing--where the political, financial, and institutional pressures to grant a license are only a small fraction of what they will be in the repository licensing--neither the NRC nor its predecessor AEC has ever, ultimately, failed to grant a license for any proposed facility that has been pursued to the conclusion of licensing.

Under these circumstances, a strategy that relies on the formal NRC licensing proceeding as a primary mechanism for influencing the ultimate outcome of the repository program must be considered, at best, questionable. This conclusion--that the Commission is unlikely to deny a license for a repository--should not be taken as a suggestion that the Commission will abdicate its responsibility in this program, or even that the licensing proceeding will not be important. Quite to the contrary, the Commission's role is absolutely pivotal to the success or failure of the program. This analysis does suggest that the formal licensing proceeding will be very late in the game, and that the Commission will effectively exercise its substantive regulatory role primarily before the application is docketed. This is, indeed, precisely the way that Commission licensing of nuclear power plants has invariably worked.

The implication of this discussion for the timing of the LSS is that ready access to information is needed by affected parties now, and throughout characterization, if they are to have meaningful participation--that is, influence--in this program. There is unanimous agreement among the affected states and Indian tribes that adequate access to information about the details of DOE's program is not being provided, and that they do not now have meaningful influence on the program. (18) Thus, an approach to the LSS which looks primarily to information needs during the formal licensing period, and that makes a functioning LSS available only a year or two prior to the commencement of that proceeding, will not adequately serve the needs of the parties.

#### Is an interim LSS system needed?

The above discussion compels the conclusion that it is essential to establish a vastly improved system of access to repository program data--preferably automated and to the greatest possible extent full-text--within the next couple of years. Consequently, the immediate information needs of the affected parties--as opposed to their projected needs during formal licensing--should be the first order of business for both the Interagency Coordinating Committee on the LSS and the NRC rulemaking negotiating committee.

#### Who should manage an interim system?

The pilot system already established by the NRC Division of Waste Management demonstrates an impressive capability along the lines described above, including storage of scanned graphic images as well as searchable full-text. The operating system is currently limited in scope to the Nevada site but is being expanded to include the other two sites. It is sufficiently developed that it is being used regularly by the Commission staff in its own work.

The most timely and cost-effective way to improve the present unsatisfactory situation with respect to

information access is probably to make the NRC pilot system the interim system for all parties and all sites. The Commission staff is already well along in the process of entering its own data and that of its contractors in that system. Moreover, at least the textual portion of much of DOE's current data could probably be fairly quickly entered, assuming that most of it is already in electronic format. Most of the comments and other materials generated by the YIN Nuclear Waste Program during the past two years could be submitted electronically, and that is probably also true for many other affected parties.

Because the Commission staff has already demonstrated both the technical and institutional capability to implement its pilot system, management of the interim system should be retained by NRC. This would serve the paramount interest of timeliness by avoiding the need for a transition to new managers. As discussed immediately below, management by NRC would also be more appropriate on policy grounds. Consistent with the intent of the NWPA, the costs of expanding the pilot NRC system for this purpose should be borne by the Nuclear Waste Trust Fund.

#### Who should manage the full-blown LSS system?

DOE officials have stated that they do not wish to pay for more than one such system. That is a reasonable position. However, there is reason to believe that the present plans for DOE to implement and manage the LSS will not bring about the intended results. The most timely, economical, and politically acceptable means to accomplish the desired comprehensive information system may be continued evolution from the pilot system that NRC has already started, rather than development of a separate, new system by DOE. From a technical perspective, this would avoid a costly and difficult transition to new operators, and possibly also to some extent to new equipment. Even if a full-blown LSS will require complete replacement of the hardware configuration used for NRC's pilot program and/or an interim system, the conversion would almost certainly be easier and less costly within NRC than if transferred to DOE.

From a policy perspective, there are very good grounds why it would be more appropriate for the LSS to be managed by the licensing agency than by the applicant agency. As has been noted in meetings on this issue among the two agencies and representatives of states and tribes, the DOE's approach to this program as the applicant is mission-oriented: to get authorization to construct a repository. The Commission's approach, as the branch of government entrusted with the responsibility to protect public health and safety and the environment from the potential hazards of this activity, is issue-oriented: Can we say with reasonable assurance that our uncertainty about this or that issue is within manageable limits? The mission orientation of the Department may naturally cause it to be less than enthusiastic about thorough and early airing of certain issues that might tend to frustrate accomplishment of their mission. The purpose of the LSS, on the other hand, must be to facilitate the airing of precisely those issues.

The Commission has a better legal and technical grasp on what its licensing information needs will actually be, and already demonstrates both the will and the institutional capability to bring the needed system into being. The author's observation of interactions between the two agencies on this subject over the past two years shows that enormous effort has been expended--often unsuccessfully--by NRC staff trying to communicate the implications of its licensing informa-

tion needs to DOE staff. Some of the frustration on NRC's part, resentment of interference on DOE's part, and inherent inefficiency in that process could be avoided if the Commission itself assumed responsibility for implementation of the system. Moreover, inasmuch as the system will be defined and controlled, in large measure, by the NRC's procedural rules in 10 CFR Part 2, it makes sense to have NRC, rather than DOE, primarily responsible for its implementation. During the licensing proceeding, submission of documents to and release from the system will be governed by orders of the Commission's Atomic Safety and Licensing Board. Execution of such orders would be facilitated by NRC management.

Moreover, as it will be a licensing information system, the Commission might well find use for the LSS in areas other than the repository licensing. Such would not be true of DOE, as this is unfortunately about the only DOE facility subject to NRC licensing. Of course, to the extent that it is used by the Commission for other purposes, it should not be paid for out of the Nuclear Waste Trust Fund.

A final, troubling consideration with respect to LSS management is trust--a key ingredient to the success of a system of the scope envisioned by the NRC. Circumstances have resulted in quite strained relations at present between DOE and the affected tribes and states. (19) The degree of confidence and trust that would be necessary to convince the affected parties to submit to a system managed by the Department is, in my opinion, totally lacking at present. The Commission could of course end up in the same low regard eventually, but has thus far succeeded in avoiding that fate.

Probably the major reason that DOE implementation and operation of the LSS system is presently contemplated is the fact that DOE controls the Nuclear Waste Trust Fund, and NRC has had insufficient funds internally to underwrite development of a full-blown system. However, the NWPA provides that the generators and owners of HLW should bear the costs of disposal. (20) The costs of the licensing proceeding--including the costs of an LSS or that portion of an LSS used by the waste repository licensing--should properly be borne by the Trust Fund under the NWPA.

NRC is two to three years ahead of DOE in the area of LSS development. Because of the importance of improving access to program information as soon as possible, the timeliness issue alone dictates that the Commission should probably proceed to develop the LSS. A mechanism should be aggressively pursued to transfer funds for a repository LSS from the Nuclear Waste Trust Fund to the NRC.

#### CONCLUSION

The adequacy of information and of access to it promise to be key issues in the NRC licensing of a high-level waste repository. However, the need for affected parties to gain access to repository data arises long before the formal licensing proceeding. It is this author's opinion that the most efficient and

effective way to achieve a workable information management system in time to be useful is to develop the pilot system already set up by the NRC staff as an interim system, to subsequently develop that system into the full-blown LSS, and to retain its management within NRC. Appropriate means should be found to reimburse NRC for the costs of such a system from the Nuclear Waste Trust Fund.

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