

RIS REVIEW/2

JAN 02 1991

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MEMORANDUM FOR: Robert M. Bernero, Director
Office of Nuclear Material Safety
and Safeguards

FROM: Robert E. Browning, Director
Division of High-Level Waste Management

SUBJECT: LESSONS LEARNED FROM THE REGULATORY IMPACT SURVEY
CONDUCTED BY THE OFFICE OF NUCLEAR REACTOR REGULATION

As part of its effort to learn from the experience of others, the Division of High Level Waste Management (HLWM) staff has reviewed SECY-90-347, the Regulatory Impact Survey (RIS) Report, written by the Office of Nuclear Reactor Regulation (NRR). The report discusses the feedback that NRR received from surveys of its licensees and the NRR staff's plans for improving its regulatory program. As part of this exercise, the HLWM staff also reviewed the November 6, 1990, Staff Requirements Memorandum pertaining to the RIS report.

Based upon its review of the two aforementioned documents, the HLWM staff found four significant problem areas cited by the RIS respondents. These include:

1. The perceived need to acquiesce to NRC requirements to avoid confrontations.
2. The effect of NRC inspections on the licensee's resources.
3. The cumulative effect of NRC regulations.
4. The loss of trained and qualified professionals at the NRC.

These four areas and the efforts that HLWM has made to avoid these problems in its program are discussed in the remainder of this memorandum.

1. Need to Acquiesce

One problem area noted by many of the RIS respondents concerned their perceived need to acquiesce to NRC requirements in order to avoid confrontations. The HLWM staff and the U.S. Department of Energy (DOE) have been engaged in various types of interactions under the heading of "pre-licensing consultation" that should preclude the possibility of DOE being put in a position of acquiescence to avoid confrontation. To avoid DOE being subject to varying staff positions, the staff and DOE have agreed that only those items signed by the Director of the Repository Licensing and Quality Assurance Project Directorate (HLPD) or a higher authority constitute official staff positions.

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With respect to the interactions, the majority of these are in the form of meetings or technical exchanges where NRC and DOE staffs have an opportunity to express their concerns and come to an agreement on what DOE will have to do to meet the requirements. Following a meeting or technical exchange, the staff and DOE will prepare a record of the interaction that is agreed upon by the participants from both of the agencies. Before these records are issued as final, they are reviewed by Division management and transmitted to DOE by the HLPD Director. This helps avoid uncertainty over the significance of a position taken by a staff member in a meeting. It is our belief that such interactions help provide much clearer communication regarding the DOE's proposals and the staff's licensing requirements. The management oversight practiced by HLWM helps ensure that DOE is not subject to unofficial positions on the requirements.

A second advantage of the interactions between NRC and DOE is that the interactions are held far in advance of DOE's actual submittal of a license application, and provide insight to DOE as to what must be done to demonstrate compliance with the regulations. They also help ensure that DOE collects and submits the appropriate information necessary for the staff to make a decision on licensing the high-level waste repository.

The HLWM staff and DOE are working on an ongoing basis to address compliance with the regulations. The HLWM staff believes that these continued interactions allow DOE an opportunity to respond to, or rebut, the HLWM staff. Thus, the HLWM staff is addressing compliance with the applicable regulations in a manner that allows for DOE to voice its concerns before the staff positions become final. Unlike NRR, where backfitting has been necessary to remedy unforeseen problems, HLWM is in a position where it can work with the applicant to address potential problem areas. HLWM efforts are directed towards recognizing potential problems and resolving them prior to DOE's submittal of its license application.

In summary, this has not been observed to be a problem in our interface with DOE to date and the actions noted above should ensure it does not become a problem.

2. Effect of Inspections on Resources

A second problem area cited by the RIS respondents was in regard to the amount of time and effort their managers had to devote to NRC inspections. In general, a reactor licensee may be inspected by a number of organizations within the agency including NRR, the Regional Offices, and the Office of Analysis and Evaluation of Operational Data. These inspections may be scheduled in advance or held unannounced. Occasionally, problems in coordinating these inspections may overwhelm the licensees. In contrast, the only organization involved in the high-level waste program is HLWM. Therefore, there is no concern about coordinating activities of several different organizations. In addition, the HLWM staff is not conducting any inspections. Currently, the staff is observing audits or surveillances conducted by DOE. Because DOE has the lead for the audits and surveillances, the HLWM presence is not so intrusive. However, the staff is scheduled to conduct three independent audits in fiscal year 1991. These audits

will be focused only on areas where the staff believes additional independent review is needed. Along with all staff interactions with DOE (meetings, observation audits, audits, etc.), these audits are coordinated by the HLWM Project Managers to ensure appropriate timing and to minimize unnecessary impacts on DOE or HLWM.

3. Cumulative Effect of NRC Regulations

Another of the problem areas noted by the RIS respondents was that the NRC does not consider the cumulative effect of requirements on the licensees and does not adequately communicate the priority of each new requirement to the licensees. In the high-level waste program, the staff has taken several steps to better control the development of new requirements.

First, in NRR, guidance is issued in the form of technical positions at the branch level and regulatory guides at the office level. This allows formal technical positions to be documented without receiving office-level review. Although, the high-level waste management program also uses technical positions to provide guidance, our technical positions are more like the regulatory guides issued by NRR. Like the regulatory guides, our technical positions are subjected to public review and comment and are issued at the office level. The net effect of issuing our guidance at the office level is to reduce the cumulative effect that would come about if each of our branches issued guidance independently. Also, the HLWM staff's pre-licensing consultations with DOE better enables it to develop requirements that will allow for early input from DOE and affected parties. Furthermore, these consultations allow the staff to communicate the significance of these requirements to DOE, and to determine whether additional guidance is needed.

Second, there is the Systematic Regulatory Analysis (SRA). Through SRA, the staff is able to evaluate the existing rule and identify where there is uncertainty in the regulation that needs to be reduced. In addition, the SRA also helps the staff identify whether the existing regulations are necessary or if there are gaps in the rule. Thus, the SRA provides the staff with a structured means for determining whether the regulations go beyond what is necessary or if additional regulations are needed. As issues identified through the SRA are addressed, the solutions are also analyzed in the SRA. This analysis enables the staff to determine whether the reduced uncertainties are consistent with other parts of the rule and to determine their effect on the overall rule. The SRA enables the staff to ascertain that the means for reducing the uncertainty are implementable. This helps avoid the possibility of issuing conflicting regulations or burdening the license applicant with overregulation.

A third step being taken by HLWM is the process of an iterative performance assessment. Through this process, the staff is evaluating the U.S. Environmental Protection Agency's (EPA's) high-level waste standards and 10 CFR 60. This evaluation involves the coordination of significant interfaces in various parts of the regulations. Hence, the analyses allow the staff to develop a better understanding of the interfaces of the rule.

4. Loss of Trained and Qualified Professionals

The fourth problem area cited by the RIS respondents concerned the NRC's loss of trained and qualified professionals. HLWM has taken concerted efforts to ensure that it maintains a trained and qualified staff. Recently, for example, the entire HLWM staff received training in quality assurance auditing. Gradually, members of the staff will be taken out on an observation audit or surveillance. In addition to the educational benefit afforded to the staff in such field visits, these visits will also enable management to discover which members of the staff have a greater aptitude for this type of work. HLWM has also instituted several measures to help avoid the loss of trained and qualified staff because of job fatigue. For example, the Division encourages internal transfers of its staff to other parts of the Division, reassignment of work, and active participation in laboratory and field work being conducted by the Center for Nuclear Waste Regulatory Analyses. In addition to providing a change of pace, these measures give the staff members an opportunity to learn about and develop their skills in different areas and gain a broader perspective on the high-level waste program.

Finally, HLWM is working with its staff members to develop Individual Development Plans which are designed to better enhance their skills and abilities at the NRC. Management also encourages and supports the staff in obtaining the appropriate training.

Please feel free to contact me (extension 23404) or Ken Kalman of my staff (extension 20428), if you have any questions.

**Original Signed by
Robert E. Browning**

Robert E. Browning, Director
Division of High-Level Waste Management

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

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cc: G. Arlotto