# POLICY ISSUE
## (Information)

June 8, 1987 SECY-87-137

For: The Commissioners

From: Victor Stello, Jr.
Executive Director for Operations

Subject: FIRST QUARTERLY PROGRESS REPORT ON THE PRE-LICENSING PHASE OF DOE'S CIVILIAN HIGH-LEVEL RADIOACTIVE WASTE MANAGEMENT PROGRAM

Purpose: To provide the Commission with the first quarterly progress report on the pre-licensing phase of DOE's Civilian High-Level Radioactive Waste Management Program.

Summary: The NRC staff has completed the first quarterly progress report on the pre-licensing phase of DOE's Civilian High-Level Radioactive Waste Management Program. This progress report was requested by the Commission and referenced in the Chairman's April 7, 1987 letter to DOE transmitting the NRC staff's comments on the Draft Mission Plan Amendment, issued in January 1987. The focus of this report is on the current status of seven action items which cover the key aspects of the NRC/DOE pre-licensing consultation program. Focusing on these items should provide the Commission with the overall NRC staff perspective on the progress of the repository program. Also, this report will provide information to the Commission on NRC/DOE interactions prior to meeting with the Director of DOE's Office of Civilian Radioactive Waste Management on June 11, 1987.

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Background: In the Draft Mission Plan Amendment of January 1987, the DOE committed to six activities to make maximum use of the near-term schedule extension and to increase confidence that the Commission's review of the license application could be completed within the three year period required by the Nuclear Waste Policy Act (NWPA) of 1982.

The six activities listed in the DOE Draft Mission Plan Amendment are:

1. Interactions with the Nuclear Regulatory Commission on technical issues, using available options (e.g., rulemaking) to resolve issues.

2. The development and operation of a licensing support system that will provide storage and retrieval for specified licensing information.

3. The implementation of, and interactions with the Nuclear Regulatory Commission on, a quality-assurance program that will fully satisfy the Commission's requirements for the acquisition of data used in the licensing process.

4. The implementation of the issue-resolution strategy, which is based on the performance-allocation process requested by the Nuclear Regulatory Commission.

5. Provisions for greater involvement by the States and affected Indian Tribes in the technical program.

6. The implementation of a program of licensing topical reports, which will allow the NRC staff to consider various issues before the submittal of the license application and should greatly reduce the volume of material to be included in the application.

Five of the six activities directly correlate with the six action items identified in NRC comments on the draft Project Decision Schedule (PDS) dated October 24, 1985, as needing to be completed by DOE in a timely fashion during the pre-licensing phase of DOE's high-level waste repository program, if there is

to be any real possibility that NRC can review the license application within the three year period required by the NWPA.

The six action items from NRC staff comments on the draft PDS are:

1. Implementation by DOE of Scheduled and Systematic Consultations

2. Development of an Information Retrieval System

3. Early Implementation of a Quality Assurance Program

4. Early Establishment of Repository Design Parameters

5. Early Resolution of Major State and Indian Tribe Concerns

6. Adoption of Conservatism

The one action item that DOE does not address is adoption of conservatism and a new item which DOE listed as an activity in the Draft Mission Plan Amendment is the implementation of a program of licensing topical reports to work towards resolution of issues before the submittal of the license application. This is an activity which NRC staff did not specifically identify as an action item to be tracked in the draft PDS comments but considers important to the success of the pre-licensing program and will include in the quarterly progress reports to the Commission as identified below.

7. Early Resolution of Issues through a Program of Licensing Topical Reports and Other Mechanisms.

In summary, for purposes of keeping the Commission informed of the status and progress made on the six DOE identified activities and the six NRC action items identified in our PDS comments, the staff will track the six NRC identified action items and the topical report activity identified by DOE as listed above. The NRC staff would appreciate any suggestions the Commission might have to make the Quarterly Progress Reports more effective.

In addition to a discussion of the status of these seven items, enclosed is information on the current status of NRC's activities required by the NWPA (Enclosure 1).

Discussion: The current status of seven NRC action items is given below. (The original wording of the action item from the NRC staff comments on the draft PDS is given following the title and then followed by the status.)

1. Implementation by DOE of Scheduled and Systematic Consultations: DOE would meet with NRC staff to lay out current planned activities and milestones for site characterization (including preparations for characterization) to provide a detailed and systematic basis for determining the appropriate points for consultation. Timely consultation will become increasingly important given the long lead times for the development of plans and procedures, and for the timely procurement of essential services and equipment.

The primary method of pre-licensing consultation between NRC and DOE, established under the NWPA, is NRC's review and comment on DOE's Site Characterization Plans (SCPs) and semiannual progress reports. To facilitate this formal process, a Procedural Agreement between NRC and DOE was established in 1983 (Enclosure 2) which outlined procedures for consultation and exchange of information during investigation and characterization of sites for a geologic repository. These pre-licensing consultations are intended to assure that NRC receives adequate information on the DOE program in a timely manner to facilitate early identification and resolution of potential licensing issues. To be most effective these consultations should be scheduled sufficiently early so that NRC comments can be resolved by DOE with enough lead time so as not to delay DOE activities or the NRC licensing process. They should also contribute to the DOE's development of adequate SCP's and a License Application (LA) as well as increase the confidence that NRC can review the DOE's LA within the three year period required by the the NWPA. Under the Procedural

Agreement the pre-licensing consultation interactions consist of technical meetings, data and document reviews, and prompt information exchange by an NRC On-site Licensing Representative (OR) at each DOE project office. (At present there are ORs stationed at the DOE Hanford and Nevada project sites. An OR will be selected for the Texas project site once DOE moves its salt staff to Texas). In addition, these interactions have been supplemented by periodically sending NRC headquarters staff to the DOE project offices to work with the NRC ORs.

While DOE revised their general milestones and schedules in the Draft Mission Plan Amendment of January 1987, they have not yet provided to NRC project-specific milestones and schedules. The SCPs which DOE is currently preparing will lay out detailed milestones and schedules for each project. Project-specific milestones and schedules are needed to enable NRC and DOE to schedule appropriate consultations as the project work proceeds.

The current status of NRC/DOE consultations is as follows:

For the period from August 1985 (when it began to appear that DOE was having difficulty scheduling agreed to technical meetings) through March 1987, the following interactions occurred. There were no formal technical meetings between the NRC staff and the DOE's Nevada Nuclear Waste Storage Investigations (NNWSI) Project. For the DOE's Hanford Basalt Waste Isolation Project (BWIP), two technical meetings were held in December 1985, and for the DOE's Texas Salt Repository Project (SRPO), two technical meetings were held in November 1985 and January 1986. In addition, there were also nine NRC/DOE technical meetings on generic topics (as opposed to site-specific). There were only two data reviews: one at BWIP and one at SRPO. However, during the same period the NRC ORs and NRC headquarters staff assigned to the ORs offices were much more successful in working with and obtaining information from DOE. Such staff interactions have been frequent and successful for NNWSI and SRPO while at BWIP they have been less frequent and access to information limited. Hence while the NRC staff has been able to keep generally current with the NNWSI and

SRPO activities and to a lesser extent with the BWIP activities, there is a need for more site specific technical interactions and better access for the OR at the BWIP site. Despite the difficulties identified, the pre-licensing consultation has been generally adequate to permit NRC to perform its review of DOE programmatic documents issued to date in a timely manner. However, the main effect of the lack of interactions is that the SCPs prepared by DOE will not reflect the NRC comments and feedback that would have been generated in these interactions. This will probably result in the identification of more concerns and issues in the NRC's review of the SCPs, that will have to be resolved by DOE prior to the start of major site characterization activities and excavation of the exploratory shaft.

The need to increase the frequency and effectiveness of NRC/DOE site-specific technical interactions has been a focus of DOE and NRC management attention for all three DOE projects. Since DOE has been almost continuously occupied with writing the Environmental Assessments (EAs) and SCPs over the past three years--documents which then consume NRC's time and resources during the comprehensive review required--it has been difficult to find mutually acceptable times to hold as many technical interactions as would have been desirable. However, both NRC and DOE management have committed to improving the extent and effectiveness of technical interactions, particularly formal technical meetings.

DOE and NRC agreed in December 1986 to have seven technical meetings during the first half of 1987. Four of these meetings (i.e. Hanford Hydrologic Testing, Texas Exploratory Shaft Design, Nevada Exploratory Shaft, and Issues Hierarchy and Performance Allocation) were held. The NRC staff considers that these meetings succeeded in making progress toward resolving technical issues previously identified by NRC staff. The dates tentatively scheduled for the remaining meetings have slipped. NRC and DOE management are scheduled to meet in early June 1987 to agree on a revised schedule for future NRC/DOE meetings for 1987.

Due to uncertainties in DOE's schedules, particularly regarding when exploratory shafts will be sunk, NRC staff considers that future technical interactions with DOE, States and Tribes should be focused on near-term information needs. We will be proposing to DOE, in the upcoming management meetings that near-term technical meetings should address specific concerns related to surface-based testing strategies. In our comments on the Draft Mission Plan Amendment we indicated that some surface-based testing may be needed prior to construction of the shafts because (a) shaft construction may render some testing impossible or useless; and (b) such testing may reveal information about site suitability important to know before major resources are committed for shaft construction. Significant progress toward resolution can be made for some areas of technical concern at each site through surface-based testing before sinking exploratory shafts (see Enclosure 3).

Conducting meetings to discuss surface-based testing strategies will also allow the staff the opportunity to determine how DOE is incorporating many of the concerns identified in our final EA comments into the SCPs. This will, in turn, provide valuable insight on DOE's current approach to implementing conservatism in their program, by seeing how uncertainties and alternative interpretations are being identified and factored into test plans.

2. Development of an Information Retrieval System: DOE would develop an information retrieval system with the capability to assure that all relevant documents will be readily available when needed. The production of documents to support an application is typically a time consuming step in the licensing process, and it can be shortened with the proper type of text storage and retrievability, and sufficient degree of accessibility for the information management system. Potential host states, affected tribes and other interested parties should have the same degree of access to this system, since they also will be raising issues that DOE and NRC will need to be prepared to address in licensing.

The purpose in developing and implementing the Licensing Support System (LSS) is to facilitate compliance with Section 114(d) of the NWPA, which requires a Commission decision on Construction Authorization for a geologic repository for high-level waste within three years of DOE submission of a license application. Without a technologically modern document management system as is planned for the LSS, a three year license hearing is not likely to be achieved. DOE and NRC recognize that one of the most significant contributors to the length of past licensing reviews has been the time associated with finding, sending, receiving, and handling of information and data for discovery and for filing of motions.

NRC has demonstrated a Transitional LSS capable of searchable full-text and document image storage and retrieval for large data bases, and DOE has agreed to promptly develop the LSS as a major step in streamlining the licensing process. An Agreement In Principle was signed between the NRC and DOE (February 20, 1987) to set forth understandings and measures for cooperation in developing the LSS (Enclosure 4). The DOE has issued a Request For Proposals (RFP) for development of an LSS and is currently reviewing those proposals. However, the system is not scheduled to be fully operational until 1990.

The NRC staff is pursuing a negotiated rulemaking to change 10 CFR 2 to provide for the use of the LSS in the hearing process. Involved States, Indian tribes and other interested groups will be represented in this rulemaking. It is intended that the rulemaking will also describe the requirements for the system necessary to serve all parties in the licensing proceedings.

The NRC and DOE staffs will meet this summer to develop an implementation plan for the Agreement In Principle. In particular, an agreement should be reached on the approach for collection and access to license related documents in the interim, until the LSS is fully operational.

3. Early Implementation of a Quality Assurance Program: DOE would implement a quality assurance program as soon as possible, but not later than the beginning of site characterization. NRC is prepared to review DOE's QA programs once DOE considers that they are in place and implemented. The implementation of DOE's QA programs at all appropriate levels should be reviewed by NRC staff prior to starting site characterization.

DOE has committed to having a "fully qualified" quality assurance (QA) program in place when the SCPs are issued. Such a commitment is necessary since most of the data to be collected during the site characterization program for a site is expected to be utilized in the licensing process and must, therefore, be of demonstrable quality. Only those QA programs covering activities that are important to public health and safety and to waste isolation that will be performed shortly after the SCPs are issued, need to be "fully qualified" at that time.

As site characterization proceeds and DOE issues its semi-annual progress reports describing additional studies, it will also need to describe QA measures that will be applied to the work for review and approval by NRC.

DOE continues to make steady but slow progress in developing their QA programs. The schedule slips for the SCP have provided needed additional time to develop QA programs for DOE organizations and their contractors. Additional time is still needed to meet their current objective of having fully qualified program in place for specific program areas prior to the start of activities in these areas. The general approach that has been taken by the NRC staff is to observe DOE audits of its programs and, when DOE determines a part of the program is qualified, for the NRC staff to conduct an audit of selected critical portions of the program. This is to ensure DOE's QA program is checked by DOE to their satisfaction first, and then by the NRC. The NRC staff's first audit of the implementation of this program is scheduled for June 1987 when the staff will be conducting an audit of the mineralogy/petrology program for the Nevada project at the Los Alamos National Laboratory. DOE has assessed this program area, and believes that the QA program

is qualified. The NRC audit will confirm that assertion or identify weaknesses in the technical program area and/or DOE's QA oversight of that specific technical program. The audit team will include technical staff and contractors with expertise in the areas to be audited and will use audit techniques being developed based on lessons learned from reactor QA problems. They will focus both on the quality of technical work and on the effectiveness of the QA program to detect any quality problems and to ensure that appropriate corrective measures are taken. Similar audits are being scheduled for the other two sites. These audits will provide a basis for the staff findings on the adequacy of the DOE QA program as presented in the SCPs.

The NRC staff will be providing written reports to DOE on the effectiveness of the QA programs and the quality of the technical work at each site visited. This will be a key update item for the next Quarterly Progress Report to the Commission.

4. Early Establishment of Repository Design Parameters: In order to establish specifically what information site characterization activities will have to produce to meet PDS schedules, DOE should select tentative values for the contributions that each of the natural and engineered barriers can reasonably be expected to provide to the overall waste isolation performance of each site. Design requirements for the waste package and underground facility, for example, determine much of the information that site characterization will have to produce. Neither NRC nor DOE can determine with the requisite timeliness and detail what tests will be needed for a particular design, nor how much testing will be enough, if the basis for that design--the expected performance of each component of the waste isolation system--is not clear at the start.

DOE has developed an issue-resolution strategy that incorporates NRC's suggested concept of performance allocation (previously referred to as establishment of repository design parameters). Performance allocation is the systematic process of assigning performance goals for subsystems and components of the

repository system. The goals are not criteria that must be met for licensing; rather, they are meant to guide the initial testing program and may be changed as new information is gathered. Therefore, these goals are used to establish specifically what information site characterization will have to produce for licensing.

The DOE issues hierarchy was developed to provide a framework for presenting issues related to the regulatory requirements for siting and licensing a mined geologic disposal system and for describing the work that needs to be completed during site characterization to resolve those issues. The issues in the hierarchy include the questions relating to the performance of the repository that must be resolved to demonstrate compliance with the applicable Federal regulations.

To resolve the issues in the issues hierarchy, the DOE has adopted a general "issue-resolution strategy" that guides the development of SCPs and which will contain the rationale and plans for resolving each issue. The issue resolution strategy provides a general procedure that can be used to address specific issues.

At the DOE/NRC Issues Hierarchy/Performance Allocation meeting held in March 1987, DOE presented their current approach to identification of issues and the data needed to resolve them with performance allocation as the mechanism. Although NRC staff has found the DOE approach to be reasonable, we need to see how DOE implements the approach in the SCPs. The NRC staff will selectively review drafts of test plans when they become available; however, the final SCPs will be the most definitive indication of DOE's overall progress.

5. Early Resolution of State and Indian Tribe Contentions: We believe that the greatest uncertainty in the estimate of the time required for the CA review is related to the hearing process. The states have substantial resources available to them, and appear to be willing to strongly contest any unresolved issues which they believe

> significantly impacts them. We believe the magnitude of the uncertainty in the hearing period will continue to be large until the more significant states contentions are resolved.

Section 117(a) of the NWPA requires the DOE, Commission, and other agencies involved in any aspect of a repository to provide information to States and affected Indian tribes. The NRC and DOE have both recognized the need for consultation with States and Indian tribes for early identification and subsequent resolution of their technical concerns. As DOE acknowledged in the Draft Mission Plan Amendment, no formal consultation and cooperation agreements have been concluded with any of the States and Tribes. DOE recognizes that, given the nature of the program and the reality that the perspectives of the States and affected Indian tribes often differ from its own, formal agreements may be difficult to reach. The DOE in the Draft Mission Amendment Plan recognizes the need for greater involvement by the States and affected Indian tribes in the technical program.

The most recent indicator of participation by the States and Indian tribes was in the three recent DOE/NRC site-specific technical meetings held during April and May of 1987. In these meetings the States and Indian tribes presented their concerns verbally and in the written meeting summaries, and in some cases joined in agreements. For example, in the NNWSI/NRC Exploratory Shaft meeting, the State of Nevada not only participated in discussions but eventually signed the meeting summary and agreed with the DOE and the NRC staff on the changes in the shaft configuration proposed by the DOE.

This recent participation might be an indication that NRC/DOE interactions which involve the States and affected Indian tribes are working better than in the past. Continued improvement is needed so that an effective forum of open dialogue is established for the early identification and resolution of State/tribal technical concerns.

6. Adoption of Conservatism: DOE should be more conservative in the treatment of uncertainty in geotechnical investigations. We believe this is the best way to provide reasonable assurance that the Mission Plan's site characterization schedules will be met. The uncertainties inherent in investigations can be compensated for by incorporating more conservatism into initial designs. A conservative design can be made less restrictive if the information from site characterization clearly warrants a relaxation in design criteria. Any such change would be far less costly than a discovery late in the program that the design for critical system component was not conservative enough.

Over the past few years the NRC staff has suggested to DOE that adopting a conservative approach in their program is one way to treat uncertainties in repository performance. The NRC staff recently pointed out in its comments on the Draft Mission Plan Amendment that it was unclear in the Amendment how DOE would address conservatism in the treatment of uncertainty. Another recent indicator of DOE's approach regarding this question was in the final EAs and the resulting staff comments on them in December of 1986 (SECY-86-357). The staff concluded that while DOE had made improvements with respect to adopting a conservative approach over the draft EAs, in each of the final EAs the staff's review identified remaining concerns related to lack of conservatism, such as not identifying the range of uncertainties, and incorporating a reasonable range of uncertainties into evaluations and conclusions. Based on these concerns, the staff considered that some conclusions in all five EAs were still overly favorable or optimistic for the areas of comment. Recognition of uncertainties and alternative interpretations is necessary for a conservative approach to the development of the test plans that will lead to adequate characterization of the sites and treatment of uncertainties. In the letter transmitting the NRC staff's final EA comments, DOE was asked to consider our comments in developing the SCPs. In addition, we proposed that DOE and NRC staffs discuss in technical meetings how representative comments will be

considered in DOE's development of test plans. Such discussions in future technical meetings will provide the most timely feedback to DOE. This mechanism will be discussed in an upcoming management meeting with DOE.

Finally, progress was also made in the NRC/DOE meeting on Level of Detail in the SCP in May 1986. In this meeting, DOE and NRC agreed in a general sense on how uncertainties and alternative interpretations will be considered by the SCPs and supporting study plans. The NRC staff will selectively review drafts of test plans when they become available; however, the final SCPs will be the most definitive indication of DOE's overall progress in adopting a conservative approach.

7. Early Resolution of Issues Through a Program of Licensing Topical Reports and Other Mechanisms

In January 1986, the Division of Waste Management developed a Five Year Plan which identified four major goals for NRC's High-Level Waste Management Program. One of these goals is to assure, to the extent practicable, resolution of licensing issues prior to the licensing hearing. Consistent with this goal, in its comments on the EAs and in the technical meetings that have been held, the NRC staff has continued to give DOE feedback on new issues or the progress DOE is making toward resolving issues. The NRC staff considers that the SCPs are the primary mechanism for resolution of issues; however, the staff has also proposed using generic and site technical positions as an additional mechanism for involving all parties in early

resolution of selected issues.

DOE has recently made commitments in the Draft Mission Plan Amendment to focus on resolving licensing issues prior to licensing, in much the same manner as the NRC staff. Specifically, DOE committed to (1) interactions with the NRC on technical issues and to use available options to resolve issues; (2) implementation of an issue-resolution strategy in the SCP; and (3) implementation of a program of licensing topical reports focusing on various issues. While the NRC staff considers these DOE commitments a very positive step, effective implementation and coordination with similar NRC staff activities is essential for making progress in this area. The NRC staff will meet with DOE to develop a strategy for resolution of issues, and to consider how technical positions, topical reports, and SCP semi-annual progress reports fit into this strategy.

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Enclosures:
1. NRC's Activities required by the NWPA
2. NRC-DOE Procedural Agreement
3. Major issues and Resolution Approach
4. Agreement In Principle on the Development of a Licensing Support System

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ENCLOSURE 1

Enclosure 1

NRC'S ROLE UNDER THE NUCLEAR WASTE POLICY ACT OF 1982

I. NRC Role in Repository Development Program

| Provision | NWPA Date | Current Schedule | NRC Role |
|---|---|---|---|
| 1. Section 112(a)-Siting Guidelines promulgated by DOE in which NRC concurs. | 7/6/83 | Completed 12/84 | NRC must concur in DOE Guidelines. Action Taken: After review and comment on draft DOE Guidelines in early 1983, NRC received final Siting Guidelines on 11/23/83. NRC held oral presentations on 1/11/84, and public comments were received through 2/1/84. On 2/29, the Commission gave tentative endorsement to the Guidelines and stated that they would concur on the Guidelines provided seven conditions were met. Following six meetings between DOE and NRC staff to resolve these conditions, final Siting Guidelines were received by NRC on 5/15/84. The Commission voted to concur on the Guidelines on 6/22/84. Current Status- DOE published the final Guidelines on 12/6/84. On 12/24/84, the staff forwarded a paper to the Commission (SECY-84-482) recommending that the Commission does not have to concur in the supplementary information to the final Guidelines. The Commission approved this recommendation. Nine petitions challenging the DOE Siting Guidelines have been consolidated into one suit in the 9th Circuit. DOE's motion to transfer the suit to the DC Circuit Court of Appeals was denied by the Ninth Circuit on 10/29/86. A government motion to consolidate the Siting Guidelines case with Environmental Assessment-related cases was denied. |
| 2. Section 121(b)-NRC must promulgate technical requirements and criteria. | 1/1/84 | Promulgated 6/21/83 | NRC must issue regulations which specify the technical requirements and criteria for the repository. Current Status- The regulations, which were under development by the staff for several years, were published in the Federal Register on 6/21/83 (48 FR 28194). The regulations are found in 10 CFR Part 60, "Disposal of High-Level Radioactive Wastes in Geologic Repositories Technical Criteria." An Advance Notice of Proposed Rulemaking (ANPR) for the definition of high-level waste (HLW) was published in the Federal Register on 2/27/87 (52 FR No.39, pp.5992-6001). Comment period extended to 6/29/87. |

[1]Per draft Mission Plan amendment, 1/87

| Provision | NWPA Date | Current Schedule | NRC Role |
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| 3. Section 121(a)-EPA final high-level waste standards promulgated. | 1/7/84 | Promulgated 9/19/85 | Section 121(b) regulations and criteria must be revised by the Commission, if necessary, to comply with standards being prepared by EPA. Action Taken: NRC's comments on the proposed standards were transmitted to EPA on 5/10/83. Current Status: EPA final high-level waste standards were signed on 8/15/85, published in the Federal Register on 9/19/85 (50 FR 38066), and became effective 11/18/85. NRC staff reviewed its high-level waste criteria (10 CFR Part 60) for conformance with EPA standards, and provided a proposed rule (SECY-86-92) to the EDO and the Commission on 3/21/86, which the Commission approved on 5/15/86 without modification. The proposed revisions were published in the Federal Register on 6/19/86 (51 FR 22288) and comments were due by 8/18/86. The final rule is expected to go to the Executive Director for Operations (EDO) in early May 1987 and to the Commission by mid-May. |
| 4. Section 114(e)(1)-DOE Project Decision Schedule (PDS) | None Specified | Final received on 4/10/86 | NRC must coordinate with DOE on the development of the PDS. Action Taken: DOE submitted a preliminary draft PDS for NRC comment on 1/15/85. NRC comments were transmitted to DOE on 3/4/85 (JGDavis to BRusche). DOE issued the draft PDS on 7/18/85. NRC comments were approved by the Commission (with modifications) on 9/19/85, and the final comments were transmitted to DOE on 10/24/85. The final PDS was issued on 4/3/86 (51 FR 11466) and copies were available on 4/10/86. Current Status- With the issuance of the final PDS, the reporting requirements of NWPA Section 114(e)(2) are in effect. Any agency that cannot meet a PDS deadline must notify DOE and Congress why it cannot comply. Staff has reviewed the PDS for DOE response to previous NRC comments, and also for any NRC milestones that are subject to Section 114(e)(2). NRC and DOE staff have been working together to resolve specific PDS concerns. On 4/3/87, B. Rusche sent letter to H. Thompson informing him that DOE has initiated a revision to the PDS. |
| 5. Sections 216(a) and 301(b)- Draft Mission Plan published by DOE. | 4/7/84 | Published 5/84 | NRC must coordinate with DOE on the development of the Mission Plan, and specify, with precision, any objections to the Plan. Action Taken: NRC received a preliminary draft on 12/23/83 and sent comments directly to DOE on 2/8/84. The draft Mission Plan required by the Act was released by DOE on 5/8/84 and forwarded to NRC for review and comment by 7/9/84. DOE briefed the Commission on the draft Mission Plan on 6/27/84. Staff comments were signed by the Chairman and forwarded to DOE on 7/31/84. |

[1]Per draft Mission Plan amendment, 1/87

| Provision | NWPA Date | Current Schedule | NRC Role |
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| 6. Section 301(b)-Submission of DOE Mission Plan to Congress. | 6/7/84 | Completed on 7/9/85 | Following Congressional approval of the Mission Plan, NRC will, wherever necessary, conform its waste management program planning guidance to the Plan. Action Taken: DOE submitted the Final Mission Plan to Congress on 7/9/85. NRC testified before the Senate Committee on Energy and Natural Resources concerning the Mission Plan on 9/12/85; before the House Subcommittee on Energy and the Environment on 9/13/85; before the Senate Subcommittee on Nuclear Regulation on 10/30/85; and before the House Subcommittee on Energy Research and Production on 11/6/85. DOE issued a draft amendment to the Mission Plan for public comment on 1/28/87 with a 60 day comment period. Staff prepared a response from Chairman Zech to B. Rusche, DOE with attached comments. Letter was issued on 4/7/87. DOE plans to submit Mission Plan Amendment to Congress in the Summer of 1987. |
| 7. Section 117(a)-Provision of information to States/Tribes. | In a timely manner | Ongoing | NRC must provide timely and complete information regarding its determinations or plans made regarding siting, development, or design for licensing, construction, operation, regulation, or decommissioning. NRC has been holding meetings with State and Tribal officials to exchange information. The Commission met with State and Tribal officials on 9/6/85, to receive their views on the DOE timing of preliminary determination of site suitability [Section 114(f)]; and also, at the request of States/Tribes, on 1/24/86 to discuss States/Tribes views on changes to 10 CFR Part 60 (SECY-85-333). NRC Staff also met with the States/Tribes in Las Vegas (with DOE in attendance) on 4/30/86 to discuss the Licensing Support System (LSS) and streamlining the licensing process. NRC staff also attended the Quarterly Meeting of the States/Tribes in Portland, OR on 8/12-13/86, at which Commissioner Asselstine spoke on the Implementation of the DOE High-Level Radioactive Waste Repository Program. NRC staff also attended the Fall Conference of the Council of Energy Resource Tribes (CERT) 11/17-18/86 in Denver. NRC staff participated in a meeting of the National Congress of American Indians on 3/10/87. NRC is planning the Second Annual Meeting of State and Tribal Representatives on the High-Level Waste Program for 6/9-10/87. Significant HLW documents are routinely distributed to state/tribal reps, eg. NRC comments on Final EA's and draft technical positions. In addition, upcoming meeting notices are sent to reps on a weekly basis. |

[1]Per draft Mission Plan amendment, 1/87

| Provision | NWPA Date | Current Schedule | NRC Role |
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| 8. Section 112(b)-DOE recommends to the President 3 sites for characterization for first repository. Each of the 5 sites initially nominated for characterization must be accompanied by an Environmental Assessment (EA). | 1/1/85 | Site recommendation 5/28/86 | DOE will develop draft EA's on sites under consideration for nomination after Commission concurrence on the Siting Guidelines. NRC staff intends to review and comment on EA's. Action Taken: DOE issued draft EAs for 9 potential repository sites on 12/20/84, and the NRC review was completed on 3/20/85. According to the draft PDS, DOE had planned to publish final EAs and nominate and recommend sites in 11/85. However, on 10/30/85, DOE announced that the final EAs and site recommendation would be delayed until late 2/86 to accomodate for the National Academy of Sciences (NAS) review of the ranking methodology. Current Status: The EAs were issued on 5/28/86, and Washington, Nevada, and Texas were recommended to the President, who approved them for characterization. The affected States and the Indian Tribes have challenged the EAs in the Ninth Circuit. NRC comments on the Final EAs (SECY-86-357) were approved by the Commission on 12/19/86 and were transmitted to DOE on 12/22/86. |

[1]Per draft Mission Plan amendment, 1/87

| Provision | NWPA Date | Current Schedule | NRC Role |
|---|---|---|---|
| 9. Section 8-President must evaluate the possibility of developing a defense-waste only repository. | 1/7/85 | 4/30/85 | DOE submitted a final report to the President in 2/85, recommending a combined commercial and defense repository. On 4/30/85, the President found no basis that a defense-only repository is needed and agrees with DOE's recommendation of a combined repository. DOE issued for public comment a Draft Environmental Impact Statement (DEIS) on feasibility of shallow land disposal facility for defense waste at Hanford in 3/86. NRC comments were approved by the Commission and transmitted to DOE on 9/24/86, and were made available to affected state and Tribal representatives soon thereafter. Final EIS is expected in late 1987. |
| 10. Section 113(b)-Submission to NRC by DOE of site characterization plan (SCP), waste form or package description, and conceptual repository design for each site. | Before sinking shafts | Basalt/Tuff Fall 1987<br>Salt Spring 1988 | NRC must review and comment on the submitted materials. Current Status- DOE schedules for SCP submittal are: BWIP and NNWSI in late Summer/early Fall 1987 and Salt in Spring 1988. NRC plans to submit comments (Site Characterization Analysis) 6 months after the SCPs are issued. Because of Congressional budgetary restrictions on DOE, shaft construction cannot begin until FY88. A revision to Reg. Guide 4.17, "Standard Format and Content of Site Characterization Plans for High-Level Waste Geologic Repositories", was published in March '87. DOE has provided NRC staff and state and tribal representatives with a few draft chapters of the SCP. |
| 11. Section 114(a)(1)(E)-DOE submits to the President and the public the Commission's preliminary comments concerning at-depth sufficiency for DOE construction | Prior to 13. below | Prior to 13. below | NRC must provide preliminary comments on whether the at-depth site characterization analysis and waste form proposal is sufficient for inclusion in the DOE construction authorization application. |
| 12. Section 114(a)(1)(D)-DOE's final Environmental Impact Statement (EIS) on the first proposed repository must include comment from NRC on the draft EIS | Prior to 13. below | Final EIS 7/91 (10/94)[1] | NRC must review and comment on the draft EIS, which is scheduled to be issued 1/91 (10/93)[1]. NRC is allowed 3 months for review and comment, but had requested 5 months (in draft PDS comments) to allow for Commission involvement and for consultation with host states and affected Indian tribes. DOE has retained only the 3 months for draft EIS review and comment, due 4/91 (1/94)[1]. Final EIS scheduled to be issued in 7/91 (10/94)[1] |
| 13. Section 114(a)(2)-President recommends one site to Congress for construction. | 3/31/87 (may be extended one year if necessary) | 10/91 (1/95)[1] | N/A |

[1]Per draft Mission Plan amendment, 1/87

| Provision | NWPA Date | Current Schedule | NRC Role |
|---|---|---|---|
| 14. Sections 116(b) and 118(a)-Submission of notice of disapproval by State or Indian tribe (up to 60 days after Presidential recommendation) | 5/30/87 (or 5/30/88 if #13 is extended) | 12/91 (3/95)[1] | N/A; see 15 below |
| 15. Section 115(g)-Congress may obtain any comments of the Commission with respect to a State/Tribal site disapproval. | Prior to 16. below | Prior to 16. below | NRC must be cognizant of State/Tribal concerns to be able to provide knowledgeable comments to Congress. |
| 16. Section 115(c)-State/Tribal disapproval will take effect unless both Houses of Congress pass resolution of approval with in 90 calendar days of continuous session | About 8/87 (or 8/88 if #13 is extended) | 12/91-2/92 (3/95-6/95)[1] | N/A; see 15 above |
| 17. Section 114(a)(3)-Within 1 year after disapproval, the President must recommend an alternative site for the first or a subsequent repository. | 8/88 (or 8/89) | 1992/1993 (1995/96)[1] | Role similar to initial site recommendation. See events 11-15, above. |
| 18. Section 114(b)-Secretary submits license application (LA) to NRC. | 8/87 | 12/91 (1/95)[1] | An NRC licensing proceeding will be initiated on the license |
| 19. Section 114(c)-NRC must submit status report to Congress. | One year after submittal of the license application and annually thereafter. | 12/92 (1/96)[1] | NRC must submit an annual status report on the progress of the licensing proceeding to Congress. |

[1]Per draft Mission Plan amendment, 1/87

| Provision | NWPA Date | Current Schedule | NRC Role |
|---|---|---|---|
| 20. Section 114(d)-Commission must issue decision on construction authorization (CA) for first repository. | 1/1/89 or 3 years after application submitted, or 4 years after submittal (if extended) | 3/94 (1/98)[1] | The 3 year time period for an NRC licensing decision dictates an aggressive program of involvement with DOE and States/Tribes prior to receipt of a license application so as to identify and resolve contentious issues to the maximum extent practicable. Commission will either grant or deny authorization for DOE to begin construction of the first geologic repository. To meet this schedule, a relatively complete, good quality DOE application will be required. In the final PDS, DOE has reduced the statutory assumption on the duration of this action from 36 to 27 months. NRC believes that 36 months for a licensing decision is a very optimistic estimate and has identified various measures by which both NRC and DOE can facilitate the 36 month license review schedule by resolving issues early. Draft Mission Plan Amendment (1/28/87) reinstates the 36 month license review schedule. |
| 21. Section 114(f)- Any EIS prepared in connection with a repository proposed to be constructed by the Secretary under this subtitle will, to the extent practicable, be adopted by the Commission in connection with the issuance by the Commission of a construction authorization and license for such repository. | At time of construction authorization. | (1/98)[1] | NRC staff (Office of the General Counsel) to amend Part 51 to establish what is meant by "to the extent practicable". Proposed Rule is expected in Fall 1987. |
| 22. Section 112(b)(1)(c)-Secretary must recommend 3 sites for characterization to President for second repository. | 7/1/89 | Mid-1990s (TBD)[1] | Same as event 8 above. Current Status- DOE issued the Area Recommendation Report (ARR) on 1/16/86, which identified 12 possible second repository sites, subsequently conducted public hearings concerning the second repository. On 5/28/86, DOE announced an indefinite postponement of the Crystalline Project until the need for a second repository can be better assessed. This indefinite postponement is being legally challenged in court by the affected States and Tribes. The Draft Mission Plan Amendment (1/87) discusses the basis for delaying site specific work on the second repository. |
| 23. Section 114(a)(2)(A)-President must recommend to Congress 1 site, from sites already characterized, for second repository. | 3/31/90 (may be extended one year). | TBD | Same as events 10, 11, and 12 above. |

[1]Per draft Mission Plan amendment, 1/87

| Provision | NWPA Date | Current Schedule | NRC Role |
|---|---|---|---|
| 24. Section 114(b)-Submission of license application to NRC for second repository. | About 11/90 | TBD | NRC will initiate licensing proceeding for second repository. |
| 25. Section 114(d)-Commission must issue decision on issuing construction authorization for second repository. | 1/1/92 or (same as 20 above) | TBD | 3 year time period for NRC decision dictates an active program of involvement with DOE, States, and Tribes prior to receipt of application to identify and resolve contentious issues to the maximum extent practicable. To meet this schedule, a relatively complete, good quality DOE application will be required. |

[1]Per draft Mission Plan amendment, 1/87

## II. NRC's Role in the Test and Evaluation Facility Program

| Provision | NWPA Date | Current Schedule | NRC Role |
|---|---|---|---|
| 26. Section 213(a)- DOE is authorized but not required to issue T&E facility siting guidelines. | 7/7/83 | DOE has not announced | Current Status- No guidelines have been issued. NRC will provide the required consultation if and when the guidelines are issued. A decision on issuing the guidelines is expected in late-1987. It is anticipated that, at that time, DOE will defer the decision once again. (See 28 below) |
| 27. Section 216(a)-TEF cooperation and coordination. | None specified | | NRC shall assist the Secretary by cooperating and coordinating on any reports under Title II. Current Status- No action taken. DOE planning to make a determination on a collocated TEF in FY87. |
| 28. Section 217(f)(1)-NRC, DOE must conclude written agreement on procedures for T&E facility interaction. | 1/6/84 | Not scheduled | NRC must work with DOE in developing a written agreement for procedures for review, consultation, and coordination in the planning, construction and operation of the T&E facility. Such an understanding shall also establish the types of reports and other information as the Commission may reasonably require to evaluate health and safety impacts of the T&E facility. Current Status- No agreement has been reached. DOE reported to Congress on 4/6/84 their decision that if a TEF is necessary, it should be collocated, but that the decision on the need for a TEF is being delayed until the program's data needs are better established, now planned for late 1987. |
| 29. Section 217(f)(3)(A)-NRC shall carry out a continuing analysis of the T&E activities to evaluate the adequacy of the consideration of public health and safety issues. | None specified | | As provided |
| 30. Section 217(f)(3)(B)-NRC required to report to the Secretary, the President, and the Congress as it deems appropriate. | None specified | | As provided |
| 31. Section 217(h)-NRC must concur on decontamination and decommissioning of DOE's T&E facility. | Five years after initial operation | | NRC will evaluate DOE's decontamination and decommissioning activities, and concur, if deemed appropriate for a T&E facility not located at the site of repository. |

[1]Per draft Mission Plan amendment, 1/87

## III. NRC's Role for Interim Spent Fuel Storage

| Provision | NWPA Date | Current Schedule | NRC Role |
|---|---|---|---|
| 32. Section 132-The Secretary, the Commission, and other authorized federal officials shall each take such actions as such officials consider necessary to encourage and expedite the effective use of available storage, and necessary additional storage, at the site of each civilian nuclear power reactor. | No specific dates | | The Commission will consider which actions are necessary to implement the intent of this provision. |
| 33. Section 134-Hybrid procedures are prescribed for hearings on certain applications for licenses for facility expansions of spent fuel storage and transshipments of spent fuel. | No specific dates, but applicable capacity filed after 1/07/83 | Final rule published 10/15/85 | A proposed rule establishing procedures for expansion of onsite spent fuel storage capacity or transshipment of fuel was published on 12/5/83. Comment period was extended to 2/20/84. A final rule was submitted to the Commission on 7/8/85. Current Status: The Commission approved the final rule on 9/5/85, and the final edited rule was published in the Federal Register on 10/15/85 (50 FR 41662). |
| 34. Section 135(g)-Issuance of NRC proposed rule establishing procedures and criteria for making a determination that onsite storage cannot reasonably be provided at a reactor. | 4/7/83 | Final criteria published 2/11/85 | As provided. A proposed rule was published 4/29/83. Comments received during the public comment period which ended 6/28/83 have been reviewed. Final criteria were submitted to the Commission on 11/7/84. The criteria were approved by the Commission on 1/10/85. Current Status: The final rule, 10 CFR Part 53, was published on 2/11/85 establishing procedures and criteria for making NRC's determination that a utility is eligible to contract with DOE for Federal Interim storage capacity. |

[1]Per draft Mission Plan amendment, 1/87

| Provision | NWPA Date | Current Schedule | NRC Role |
|---|---|---|---|
| 35. Section 135(a)-If the NRC determines that onsite storage cannot reasonably be provided at a reactor by the licensee, DOE may, under certain conditions, provide not more than 1900 metric tons of capacity for storage of spent nuclear fuel from civilian power reactors. | Not specific | | NRC will make public health and safety determinations as to the use of any existing DOE facility for spent fuel storage and will license storage in new structures, including modular or mobile spent nuclear fuel storage equipment such as dry casks, as required under this provision of the Act. |
| 36. Section 137(a)-Transportation of spent nuclear fuel to a DOE storage facility shall be subject to licensing and regulation by NRC and by the Department of Transportation. | Not specific | | DOE has decided to use NRC-certified packaging for commercial waste shipments under the NWPA. Three NRC staff members attended a DOE-sponsored workshop 11/19-21/85, to discuss planning for transportation under the provisions of the NWPA. DOE issued the draft Transportation Institutional Plan in 9/85, with comments due to DOE by 12/31/85. NRC transmitted formal comments (Cunningham to Philpot) on 1/7/86. DOE also issued the draft Transportation Business Plan in 8/85; NRC had no formal comments. The final Transportation Business Plan was issued by DOE on 2/10/86. Current Status: The Final Transportation Institutional Plan was published in the Federal Register on 8/12/86 (51 FR 28863). |
| 37. Section 137(b)-DOE, in providing for the transportation of spent nuclear fuel under this Act, shall utilize by contract private industry to the fullest extent possible in each aspect of such transportation. | Not specific | | NRC will be required to review the private contractor's application for shipment, and make licensing decisions for health and safety and safeguards. Regulations may, at a future date, be modified or revised to conform with DOE's repository program. |

[1]Per draft Mission Plan amendment, 1/87

| Provision | NWPA Date | Current Schedule | NRC Role |
|---|---|---|---|
| 38. Section 218(a) and 133-NRC shall by rule establish procedures for the licensing of any technology approved by the NRC for use at the site of any civilian nuclear power reactor. NRC may by rule approve one or more dry spent fuel storage technologies for use at the sites of civilian power reactors without, to the maximum extent practicable, the need for additional site specific approvals. | Not specific | | NRC staff, using data and information from DOE dry storage demonstration and cooperative programs, plans to develop a proposed rule to approve dry technology storage at civilian nuclear power reactors without, to the maximum extent practicable, the need for additional site specific approvals by the NRC. |
| 39. Section 216(a)-Interim Spent Fuel Storage Cooperation and Coordination. | None specified | | NRC shall assist the Secretary by cooperating and coordinating on any reports under Title II. |

[1]Per draft Mission Plan amendment, 1/87

IV. NRC's Role in Monitored Retrievable Storage Program

| Provision | NWPA Date | Current Schedule | NRC Role |
|---|---|---|---|
| 40. Section 141(b)(3)-DOE shall consult with the Commission and EPA in formulating the MRS proposal and shall submit their comments on the MRS proposal to Congress along with the proposal | 6/1/85 | TBD | NRC consulted with DOE on development of the MRS proposal, and provided comments (SECY-86-9) to DOE on 2/5/86 for submittal with the proposal to Congress soon thereafter. However, legal challenges by the State of Tennessee delayed the submittal of the MRS proposal to Congress. DOE filed an appeal to expedite a decision on the District Court injunction in the 6th Circuit Court of Appeals in Cincinnati, and oral arguments were held on 7/24/86. The 6th Circuit decided in favor of DOE on 11/25/86, but an appeal by Tennessee to the Supreme Court further delayed the issuance of the proposal to Congress. The Supreme Court denied the appeal on 3/30/87. DOE submitted the proposal to Congress on 3/31/87. |
| 41. Section 141(c)(1)-Submission by Secretary of an environmental assessment with respect to the MRS proposal to Congress. | 6/1/85 | TBD | On 2/5/86, NRC staff commented on DOE's MRS proposal which included the EA. |
| 42. Section 141(d)-DOE shall file for license with NRC for MRS. | Subject to Congressional authorization of MRS | Subject to Congressional authorization of MRS | NRC has developed revisions to 10 CFR Part 72 to provide the licensing framework for the MRS, if it should be authorized by Congress. If the MRS is authorized, NRC will review DOE's application and make the necessary licensing determinations. Current Status- The proposed rule on 10 CFR Part 72 was submitted to the Commission (SECY-85-374) on 11/25/85, and a supplement (SECY-85-374A) concerning state/tribal involvement was submitted on 3/14/86. Both papers have been approved by the Commission, the Staff Requirements memo was received on 4/21/86, and the proposed revisions were published in the Federal Register on 5/27/86 (51 FR 19106). The comment period closed on 8/25/86, with 196 comments received. The final rule is expected in September 1987. |

[1]Per draft Mission Plan amendment, 1/87

V. NRC Role in the Low-Level Waste Management Area

(No deadlines were provided in the Act for the LLW management provisions under Section 151).

| Provisions | NRC Role |
|---|---|
| 43. Section 151(a)(1)-Commission authorized to establish regulations or other such standards and instructions as it deems necessary or desirable to ensure that each LLW disposal licensee will have adequate financial arrangements for decontamination, decommissioning, site closure and reclamation of sites, structures, and equipment used in conjunction with its LLW disposal. | Preliminary work was begun on a rulemaking related to Section 151(a). Discussions were held with the Office of State Programs and the Office of the General Counsel. Work on the rulemaking was proceeding when the Executive Director for Operations terminated the rulemaking on November 5, 1986 until further research could be completed. This rulemaking will be reconsidered in the second quarter of FY 88 after reviewing the overall recommendations of the financial assurance contractor. |
| 44. Section 151(a)(2)-If Commission determines that long-term maintenance or monitoring will be necessary at a LLW disposal site, Commission must ensure before termination of the license that the licensee has made adequate financial arrangements. Monitoring will be carried out by the person having title and custody for such following license termination. | May require rulemaking by the Commission and the development of guidance for both existing and new commercial LLW disposal sites. For existing sites, analyses will be required to assess long-term performance; monitoring and long-term maintenance requirements; associated costs; and the programs to review monitoring data to identify the need for mitigative actions. |
| 45. Section 151(b)-DOE shall have the authority to assume title and custody of LLW and the land on which such waste is disposed of, upon the request of the owner of such waste and land following termination of the license issued by the Commission for such disposal, if 1) the Commission determines that the requirements for site closure, decommissioning and decontamination have been met with pursuant to Section 115(a); 2) that such title and custody will be transferred to the DOE without cost to the Federal government; 3) that Federal ownership and management is necessary, or desirable to protect the public health and safety. | Likely to require rulemaking/guidance to provide basis for required determinations. Such rulemaking/guidance would require close coordination with DOE which appears to have independent discretion to accept sites following Commission determination. |

[1]Per draft Mission Plan amendment, 1/87

| Provisions | NRC Role |
| --- | --- |
| 46. Section 151(c)-Adequate financial arrangements for long-term maintenance and monitoring, as well as decontamination and stabilization of special sites must be met in accordance with requirements established by the Commission before DOE may assume title and custody of the waste and the land on which it is disposed. | Similar to event 45 above. |

[1]Per draft Mission Plan amendment, 1/87

## VI. NRC's Role Relating to Other Provisions in the Act

| Provisions | NWPA Date | Current Schedule | NRC Role |
|---|---|---|---|
| 47. Section 223(b)-By April 7, 1983, DOE and NRC must publish a joint notice in the Federal Register stating that the U.S. is prepared to cooperate and provide technical assistance to non-nuclear weapon states in the field of spent fuel storage and disposal. | 4/7/83 Annual revisions required | Completed 3/30/83, w/annual updates. | NRC will prepare a joint Federal Register notice with DOE and will provide technical assistance to non-nuclear weapon states pursuant to the Act and the FR notice. NRC and DOE will update and reissue this notice annually for 5 years, as required. Action Taken: A FR notice was published following coordination with DOE, ACDA, and the State Department on 3/30/83. Annual updates of the notice were published in the Federal Register on 4/6/84, 4/5/85, 4/3/86, and 4/3/87 (52 FR 10792). |
| 48. Section 302(b)(1)(A)-The Commission shall not issue or renew a license to use a utilization or production facility under Section 103 or 104 of the Atomic Energy Act unless the applicant has entered into a waste disposal contract with the Secretary of Energy or the Secretary affirms in writing that the licensee is negotiating in good faith to enter into such a contract.<br><br>Section 302(b)(1)(B)-The NRC in its discretion may require as a precondition to the issuance or renewal of a reactor license that the applicant shall have entered into an agreement with DOE for the disposal of high-level waste or spent fuel that may result from such a license. | 6/30/83 | Completed 6/30/83 | The final waste disposal contract proposal was published by the DOE in the Federal Register on 4/18/83. All necessary contracts were signed and received by the DOE on or before the 6/30/83 statutory deadline. |

[1]Per draft Mission Plan amendment, 1/87

| Provision | NWPA Date | Current Schedule | NRC Role |
|---|---|---|---|
| 49. Section 303-DOE shall consult with the Chairman of the NRC in conducting a study of alternative approaches to managing construction and operations of all civilian waste management facilities and then DOE is to report Congress. | 1/6/84 | Action Completed 4/18/85 | At the invitation of the Secretary, the Chairman will consult on the "alternative approaches" study. Actions Taken-DOE chartered an Advisory Panel on Alternative Means of Financing and Managing Radioactive Waste Facilities (AMFM) to assist them in conducting the required study. As part of the consultation process, DOE extended the invitation to have an NRC observer attend the AMFM Panel meetings. The Panel held ten meetings between January and November 1984, which were attended by NRC staff observers, and toured DOE waste facilities at Hanford, NTS, and WIPP. Panel held its tenth and final meeting on 11/13-14/84, including a meeting with Secretary Hodel on 11/14/84 to discuss their recommendations and forthcoming report. A final draft of the report received by NRC on 12/5/84 concludes that several organizational forms are more suited than DOE for managing the waste program, and identifies a public corporation as its preferred alternative. The report also recommends adoption of several specific program components which are independent of the type of organization ultimately chosen to handle the program, including an Advisory Siting Council. The Final Draft Report was sent to the Chairman for consultation on 2/19/85. The staff provided comments to the Chairman on 3/8/85. The Chairman transmitted his comments to Secretary Herrington on 3/22/85, which were forwarded to the President along with DOE's recommendations on 4/18/85. DOE recommended retaining the present management structure at least through the siting and licensing phase of the program. |
| 50. Section 306-NRC is required to promulgate regulations or other suitable guidance for the licensing and qualifications of civilian nuclear power plant personnel and submit a report to congress on its activities under this action. | 1/6/84 | 4/86 | As provided. The Commission issued a policy statement on 2/7/85, concerning personnel training and qualifications (10 CFR Part 50). This policy statement was published in the Federal Register on 3/20/85. Proposed amendments to Part 55 dealing with simulator training requirements were published in the Federal Register on 11/26/84. Current Status: The final rulemaking package on Part 55 and 3 associated Regulatory Guides was approved by the ACRS on 12/5-7/85, and final Office review has been completed. The final amendment to Part 55 was submitted to CRGR for review on 2/26/86, which recommended several modifications. The edited final rule was approved by CRGR on 3/19/86, and approved by the EDO on 4/17/86. The Commission approved SECY-86-123 with modifications on 10/17/86. Staff resubmitted the final paper (SECY-86-338) to OCM in late 11/86. Commission affirmed paper on 2/12/87. Rule was published in Federal Register on 3/25/87. |

[1]Per draft Mission Plan amendment, 1/87

Enclosure 2

ENCLOSURE 3

MAJOR ISSUES AND RESOLUTION APPROACH

| ISSUE | PREDOMINANT APPROACH | |
|---|---|---|
| | Surface-based and/or Laboratory Testing | Underground Testing and/or Shaft Sinking |
| **Hanford Site** | | |
| o Characterization of Groundwater Flow System | x | |
| o Tectonic Stability | x | |
| o Radionuclide Retardation | x | |
| o Container Lifetime | x | |
| o Repository Constructability/ High In Situ Stress | | x |
| **Yucca Mountain Site** | | |
| o Presence of Potentially Active Faults in the Vicinity of Yucca Mountain | x | x |
| o Potential for Hydrothermal Activity in the Vicinity of Yucca Mountain | x | |
| o Groundwater Flow | | x |
| o Effectiveness of the Potential Radionuclide Retardation Mechanisms Available at Yucca Mountain | x | |
| o Potential for Volcanism in the Vicinity of Yucca Mountain | x | |

Deaf Smith Site

| | | |
|---|---|---|
| o Potential for localized salt dissolution along faults acting as groundwater flow paths | x | |
| o Effects of heterogeneities in the salt units on repository constructability and retrievability | x | x |
| o Potential for shaft seal failures resulting in ground water inflow | | x |
| o Potential for localized corrosion of waste package in a brine environment | | |
| --Brine migration/chemistry | | x |
| --Localized corrosion | x | |

ENCLOSURE 4

Department of Energy
Washington, DC 20585

WM DOCKET CONTROL CENTER FEB 27 1987

'87 MAR -3 P12:24

Mr. Hugh L. Thompson, Jr.
Director, Office of Nuclear
Material Safety and Safeguards
Nuclear Regulatory Commission
Washington, DC 20555

Dear Mr. Thompson, Hugh

I am enclosing a signed copy of the agreement on the LSS which John Davis signed on Friday, February 20, 1987.

I especially appreciated your note which pledges your support to the development and implementation of the LSS. As we talked last Thursday, I believe the LSS will play a key role in the implementation of the NWPA.

I look forward to working with you on this and other opportunities in your new responsibilities with the Commission.

Sincerely,

Ben C. Rusche

Ben C. Rusche, Director
Office of Civilian Radioactive
Waste Management

Enclosure: As stated

Agreement in Principle
between the
Department of Energy (DOE) and
the Nuclear Regulatory Commission (NRC)
on the Development of a Licensing Support
System (LSS)

This Agreement in Principle (AIP) sets forth the mutual policy and commitment by the two agencies for prompt development of a Licensing Support System (LSS), in support of the Commission's high-level radioactive waste (HLW) licensing proceeding. The objective of the LSS will be to facilitate compliance with Section 114d of the Nuclear Waste Policy Act which requires a Commission decision on Construction Authorization for a geologic repository for HLW within three years of DOE submission of a license application. DOE and NRC recognize that one of the most significant contributors to the length of past licensing reviews has been the time associated with finding, sending, receiving and handling of information and data. This is true for both day-to-day technical work to address licensing issues as well as for filing of motions and for the discovery process associated with adjudicatory proceedings.

Accordingly, the parties agree that

1. There is a need to promptly develop the LSS as a major step in streamlining the licensing process.

2. In concert with DOE and other interested parties, a negotiated rulemaking should be initiated by NRC to describe the requirements for the system and for all parties in the licensing proceedings to fully participate in the use of the LSS in the licensing process.

3. In concert with the NRC rulemaking, DOE will have the responsibility for designing and providing the LSS and for incorporating on-line full text and image storage and retrieval techniques.

4. In the interim, until the LSS is operational, DOE and NRC both agree that there is a need to promptly collect documents significant to HLW repository licensing in a form that can readily be entered into the LSS.

The undersigned parties (or their successors), representing their Agency's commitments, shall confer not less than quarterly to assure that the objectives of this memorandum are being effectuated.

John G. Davis, Director
Office of Nuclear Material
Safety and Safeguards (NRC)
2/20/87

Ben C. Rusche 2-26-8
Ben C. Rusche, Director
Office of Civilian Radioactive
Waste Management (DOE)