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POLICY ISSUE
(Information)

August 9, 1988

SECY-88-39B

For: The Commissioners

From: Victor Stello, Jr.
Executive Director for Operations

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

Purpose: To provide the Commission with a Quarterly Progress Report (May through July 1988) on the pre-licensing phase of the DOE's Civilian High-Level Radioactive Waste Management Program.

Executive Summary: In the previous Quarterly Progress Reports (SECY-87-137, SECY-87-267, SECY-88-39 and SECY-88-39A) on the pre-licensing phase of DOE's Civilian High-Level Radioactive Waste Management Program, the Nuclear Regulatory Commission (NRC) staff discussed seven action items that cover key aspects of the NRC/DOE pre-licensing consultation program. They were: (1) DOE implementation of scheduled and systematic consultations; (2) development of an information retrieval system; (3) early implementation of a quality assurance (QA) program; (4) early establishment of repository design parameters; (5) early resolution of State and Tribal concerns; (6) adoption of conservatism; and (7) early resolution of issues through a program of Licensing Topical Reports and other mechanisms. This report will also focus on these items, thereby providing the Commission with the NRC staff perspective on the progress of the DOE's repository program in areas important to an effective high-level waste program. The NRC staff considers these areas to be critical to ensuring that NRC can meet the statutory time limit of three years to act on the DOE's application to construct the repository.

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The most significant activities during this period pertained to Items 1 (Consultations), 3 (QA), and 7 (Issue Resolution). The major activities related to those items are as follows:

- ° Contributions in all three of the above areas were made by the transmittal on May 11, 1988 to DOE of the final point papers containing NRC concerns with DOE's Consultation Draft Site Characterization Plan (CDSCP). The transmittal package incorporated improvements suggested by the Advisory Committee on Reactor Safeguards (ACRS) Waste Management Subcommittee after the staff briefed the Subcommittee on the point papers on April 28, 1988.
- ° In the area of QA, NRC and DOE staffs met on July 7 and 8, 1988 and reached agreement on a plan for DOE to qualify and NRC to accept the DOE QA program. The plan includes schedules for submittal of DOE and DOE contractor QA plans, conducting implementation audits, and NRC staff review actions to accept DOE's QA program. If all schedules were maintained, the staff would accept that portion of the program needed to start site characterization in May 1989. In addition, the NRC staff gave DOE comments on the Nevada Nuclear Waste Storage Investigations (NNWSI) Project QA plan and reached agreement on changes needed to accept the document for site characterization work. However, as a result of a July 18 and 19, 1988 meeting on the exploratory shaft facility (ESF), problems were identified with the implementation of QA in the design process. Implementation of QA could result in schedule delays.
- ° As part of the effort toward systematic consultations, DOE issued the first two study plans for site characterization activities to NRC for staff review on May 27, 1988. The staff is currently reviewing those documents.
- ° Another activity where the staff is involved in systematic consultations was a July 18 and 19, 1988 meeting between the NRC and DOE to discuss the CDSCP objections associated with the ESF. While progress is being made with regard to the technical issues associated with these objections, the staff informed DOE that considerable work is needed before the NRC staff can agree that DOE is ready to begin shaft construction.

- o After considering the available mechanisms for early identification and resolution of issues, the staff has identified several issues that need to be resolved by means of rulemaking. These rulemakings deal with regulatory uncertainties with respect to the meaning of certain parts of 10 CFR Part 60 and what must be proven to demonstrate compliance with the NRC regulations. The Office of Nuclear Material Safety and Safeguards (NMSS), the Office of General Counsel (OGC), and the Office of Research (RES) staff have jointly identified ten topics as candidates for rulemakings. The scope and schedules for these rulemakings are currently under development. At the request of the Commission, the staff is preparing a Commission paper addressing these rulemaking activities.

Discussion:

1. DOE Implementation of Scheduled and Systematic Consultations:

Consultations with DOE during the reporting period continued to focus on the five NRC staff objections to the CDSCP. As discussed in the last Quarterly Progress Report, the staff's most fundamental technical concern, the need for DOE to consider alternative conceptual models in the development of its testing programs, was the subject of a workshop the week of April 11, 1988. The staff objection in the QA area, namely that a qualified QA program has not been put in place, was discussed in a March 18, 1988 meeting between NRC and DOE staffs, as well as in the March 21-24, 1988 meeting on the CDSCP draft point papers. A management meeting was held June 8, 1988 where the NRC staff laid out a plan for resolving the NRC QA objection. This was followed by a QA workshop July 7, 1988 to reach agreement on a plan for DOE to qualify and NRC to accept the DOE QA program. The plan includes schedules for submittal of DOE and DOE contractor QA plans, conducting implementation audits, and NRC staff review actions to accept DOE's QA program. At the same meeting, the two staffs reached agreement on a master list of QA open items needing to be addressed before site characterization and on plans and schedules for resolving them. NRC staff also met with DOE on July 8, 1988 to give DOE staff comments on the NNWSI Project QA requirements document that was submitted to the NRC May 19, 1988. The remaining three objections pertaining to the ESF were discussed in a July 18-19, 1988 meeting with DOE.

At the July 18 and 19, 1988 meeting on the exploratory shaft, the DOE responses to various NRC concerns related to the ESF left the staff with the realization that DOE has considerable

work to do before it can obtain NRC agreement to begin shaft construction. For example, it did not appear that DOE has in place a design process that effectively incorporates 10 CFR Part 60 requirements into the design or that provides verification of such incorporation. The staff also does not have confidence that there is in place a design process that assures items or activities related to safety or waste isolation are quality level I.

Additionally, final design for the ESF is not due to be completed until March 1989, yet DOE hopes to currently obtain NRC comments on the ESF in March 1989 and begin construction of the ESF in June 1989. NRC must have final design details relevant to safety or waste isolation for review two to three months prior to release of the Site Characterization Plan (SCP) (currently scheduled for December 1988) if NRC is to provide DOE with shaft-related comments on the SCP three months after receipt of the SCP. Also, DOE has yet to complete the analyses supporting the viability of the currently proposed shaft location. This concern deals with demonstrating that the shaft will not affect the integrity of the site. Because of the issues and concerns on the ESF that remain outstanding, it is not clear that DOE will make its schedule for start of shaft construction. At the July 18 and 19 meeting NRC also laid out previous open items relating to the ESF and requested DOE present its plans and schedules for resolving them at a meeting in the near future. In addition to this meeting, the staff is currently arranging with DOE upper management for one or more meetings in the very near future to discuss approaches for resolution of the issues identified at the July 18 and 19, 1988 meeting and a schedule for closure.

In addition to the focus on the CDSCP objections, the NRC staff is tentatively scheduled to meet with DOE in August 1988 to hear how DOE plans to respond to all of the NRC CDSCP concerns. The staff will continue to be available to consult with DOE on how these concerns can be resolved. As part of the acceptance review of the SCP, NRC staff will determine if DOE has adequately considered and responded to our concerns.

On May 10, 1988 DOE sent NRC a letter identifying 17 study plans DOE committed to finalize for transmittal to NRC during the next 12 to 18 months. Study plans are to provide details on the implementation of the investigation level plans contained in the CDSCP. On May 27, 1988 DOE issued the first two study plans for NRC review. The staff is currently reviewing those documents using the draft NRC

staff Study Plan Review Plan, which is consistent with the NRC-DOE agreements on content of study plans made at the May 7-8, 1986 meeting on Level of Detail for Site Characterization Plans and Study Plans. If the staff concludes, as a result of the preliminary review stage (Acceptance Review), that the study plans are acceptable for further review, it will proceed with more detailed examination of the study plans to determine whether the proposed activities may proceed without staff objection and whether those activities are adequate to obtain the data for licensing that the two study plans were designed to obtain. Staff comments resulting from each review stage will be provided to DOE.

The last Quarterly Progress Report noted an NRC-DOE management meeting held on April 13, 1988 at which NRC proposed seven workshops to address major concerns from the CDSCP review. Although DOE reacted favorably at that meeting to the staff's proposal, DOE has not yet responded with a suggested schedule for those workshops. The staff continues to aggressively pursue the scheduling of these workshops in a time frame that could allow staff comments or resulting agreements to be factored into the SCP. Only one of those proposed--exploratory shaft location and design, July 18-19, 1988--has taken place since the last Quarterly Progress Report. Also, DOE has recently committed to a workshop on substantially complete containment, which is tentatively scheduled for August 24, 1988.

As noted in previous Quarterly Progress Reports, there has been an occasional problem with getting DOE to commit to interactions with the NRC. This problem arises because of the emphasis placed by DOE on its internal development of major programmatic documents such as the CDSCP and SCP. This emphasis has also resulted in DOE not providing timely comments on staff Technical Positions and proposed rules issued by the Commission. In the next quarter the staff will focus its effort on working with DOE to resolve this problem.

2. Development of an Information Retrieval System:

On August 5, 1987 (52 FR 29024), the Commission announced the formation of the High-Level Waste Licensing Support System Advisory Committee to develop recommendations for revisions of the Commission's Rules of Practice in 10 CFR Part 2. These recommendations have a direct bearing on the adjudicatory proceeding for the issuance of a license for a geologic repository for the disposal of high-level waste. Specifically, the Committee is attempting to negotiate a

consensus on the procedures for the submission and management of records and documents for the HLW licensing proceeding. These potential revisions concern the development of an information management system (the "Licensing Support System" or "LSS") that would contain all of the data supporting the DOE license application, as well as all of the potentially relevant documents generated by the NRC and other parties to the licensing proceeding. The Commission approved a number of recommendations on the negotiated rulemaking contained in SECY 88-140.

The Advisory Committee has been meeting monthly since September 1987. The Committee is continuing its review, begun at its April 1988 meeting, of a draft regulatory text on the LSS, prepared by the NRC staff. Considerable progress has been made on developing preliminary consensus on the rulemaking issues; however, at the last meeting of the Advisory Committee held July 20-21, 1988 the industry representatives present did not agree with the consensus because they believed that the system is not cost effective. All of the Committee members continued the negotiations and a consensus, except for the industry representatives, was reached. As a result of this consensus, the staff intends to submit a proposed LSS rule to the Commission in August 1988.

DOE's contractor for the LSS design, Science Applications International Corporation (SAIC), provided a report to DOE in May 1988 entitled "Conceptual Design for the LSS." This report follows the two earlier reports entitled "Preliminary Needs Analysis" and "Preliminary Data Scope Analysis" issued by SAIC in February and March 1988, respectively. A final report was issued in July 1988, on "LSS Benefit-Cost Analysis." This report evaluates alternatives within the conceptual design. These four reports, and subsequent refinements, are intended to provide the basis for determining the LSS design specifications. The staff is currently reviewing the four reports that have been issued and is preparing comments for OGC to transmit to DOE.

3. Early Implementation of a QA Program:

As a result of the staff's QA objection on the CDSCP, QA has become the most significant near-term issue in the program. In a May 11, 1988 letter commenting to DOE on the CDSCP, the staff included the recommendation that DOE not

start significant new site characterization work until the staff gains additional confidence in the QA program. In the March 21-24, 1988 workshops on the CDSCP, DOE agreed not to start new work in an area until the NRC has reviewed the QA plan for the program area and confirmed its implementation through audits. Thus, DOE's schedule for starting new site work and beginning construction of the exploratory shaft is contingent upon putting the QA program into place and obtaining NRC acceptance of the program.

The NRC and DOE staffs took a number of actions during the last reporting period to facilitate resolution of the CDSCP objection:

- o The staff prepared a plan listing DOE and NRC actions and schedules needed to resolve the CDSCP concern. The plan included schedules for submittal of DOE and DOE contractor QA plans, implementation audits, and NRC staff review actions to accept DOE's QA program. The plan utilized many best-case assumptions, yet showed that NRC acceptance of the DOE QA program could not be completed until mid-1989. DOE had previously planned to obtain NRC acceptance by January 1, 1989, but had not fully considered the scope of the actions required to develop a qualified program.

The staff presented the above plan to DOE management on June 8, 1988. A letter noting the results of that meeting and the fact that the mutual goal of having a qualified QA program in place may not be consistent with current DOE production schedules was sent to the Director of the Office of Civilian Radioactive Waste Management (OCRWM) on June 24, 1988.

DOE and NRC staffs met on July 7, 1988 and agreed to a plan that laid out NRC and DOE actions and schedules needed to allow NRC staff to accept the DOE QA program. If all schedules are maintained, the staff would accept that portion of the program needed to start site characterization in May 1988, which is consistent with DOE production schedules. The conclusions of this meeting were reviewed and endorsed by top management of NRC (Deputy Director, EDO; Office Director, NMSS) and DOE (Office Director, OCRWM).

- o On June 21, 1988, DOE submitted to the staff a list of QA open items which need to be addressed before site characterization. These are items that have been identified by NRC staff, in the period since passage

of the Nuclear Waste Policy Act (NWPA), in letters to DOE, minutes of NRC-DOE meetings, NRC audit reports, etc. The staff reviewed the list and added other open items from its independent review of repository program documents. The DOE and NRC staffs met on July 7, 1988 and agreed to a master list of open items and plans and schedules for resolving them. Of the 131 open items initially identified, ten remain and will be tracked until they are resolved.

Many open items were resolved by DOE presenting an approach for resolving them and the staff agreeing with the proposed approach. DOE's implementation of the proposed approaches will be verified by observation audits and by staff reviews of DOE documents.

The master list of open items and plans and schedules for their resolution will be useful to senior management and to staff for tracking progress in qualifying DOE's QA program. The same is true of the actions and schedule comprising the plan mentioned previously for DOE to qualify and NRC to accept the DOE QA program.

As noted earlier, the DOE and NRC staffs met on July 18 and 19, 1988 to discuss staff comments related to the exploratory shaft facility. At the meetings, two quality assurance issues relating to the shaft were discussed. The issues dealt with (1) the specific exploratory shaft items and activities which need to be controlled by the QA program (i.e., included on the Q-List); and (2) the need for a design control process that incorporates 10 CFR Part 60 requirements into the ESF design and assures items or activities related to safety or waste isolation are quality Level I. Both of these issues concern implementation of the DOE QA program plan submitted May 19, 1988 and discussed earlier. At the July 18 and 19 meeting, the staff requested additional justification for DOE's not including certain items and activities on the Q-List. The information provided was not sufficient to justify the omission of items and activities from the Q-List. For the second issue, it appears that DOE does not have an effective design process in place and certain features of the design (such as the design bases, regulatory requirements, and the review of specific items and activities to determine which are Q-listed) are not reviewed and controlled from the start of

design activities. During the meeting it was established that the DOE approach was to complete the final design and then apply the QA requirements after construction had started. Thus, the controls during the design stage would be less than those prescribed in the NRC's regulations and would not identify design problems until after construction had started. At the close of the meeting, DOE agreed to apply QA to the design process before initiating construction.

- The staff observed two DOE audits of one of its major participants in the Yucca Mountain project, the U.S. Geological Survey (USGS). These audits were conducted at the Menlo Park office of the USGS during the week of April 25, 1988 and at the Denver office from June 8 through June 24, 1988. The NRC staff found that it was necessary for DOE to make a number of improvements in its conduct of the audit of the Menlo Park office. In addition, it appeared that a number of problems remain in the USGS program at Menlo Park. In the Denver audit, the DOE audit team was more effective, but the NRC staff recommended several possible improvements there. The DOE audit of the Denver office identified a number of findings of problem areas such as traceability of samples, lack of procedures for activities affecting the quality of work, and lack of audits of subcontractors. As of July 21, 1988, DOE management was evaluating the findings and corrective actions for this audit and determining what actions would be appropriate.

If significant problems need to be corrected in the implementation of QA programs of prime contractors for DOE, this could seriously affect DOE's schedules for qualifying the QA program.

- DOE submitted to the staff for review on May 19, 1988 the NNWSI project QA requirements document. The NRC and DOE staffs met on July 8, 1988 to discuss staff comments on the document and to reach agreement on changes needed in order for the staff to accept the document for site characterization work. As a result of the meeting, all but one of the 30 open items identified by the staff in its review were resolved. The remaining item, on test control, is currently under review by the staff and scheduled for resolution within the next month.
- OCRWM appointed a full-time Director of the Office of Quality Assurance. This position was created in the April 1988 reorganization of OCRWM. This action resolves a key NRC staff comment and should help to

give the QA program the attention needed. The individual selected has substantial licensing and management experience in the nuclear power plant area.

DOE management is placing increased emphasis on qualifying its QA program and responding to staff comments on the QA plan. Its staff has made progress in a number of areas dealing with the development of the plan. However, DOE audits continue to uncover problems with the implementation of QA plans by its contractors and the July 18 and 19, 1988 ESF meeting identified significant problems with implementation of QA in the design and analysis of the ESF by both DOE and its contractors. These concerns may be difficult to correct in the time needed to support the DOE schedule. Because of this, DOE schedules may have to be slipped. Based on this information it is the opinion of the staff that considerable work remains to be done for DOE to qualify its program and for the NRC staff to accept it.

4. Early Establishment of Repository Design Parameters:

The DOE, in its CDSCP, has implemented the performance allocation process (previously referred to as establishment of repository design parameters) previously agreed on by the NRC and the DOE. However, as discussed in the last Quarterly Progress Report, the NRC staff's review of the CDSCP indicated that the DOE's implementation of performance allocation needs to include the following: (1) a full range of the present and future states of the repository site in identifying needed investigations; (2) the effects of a comprehensive set of anticipated processes and events on the waste package lifetime, the release rate from the engineered barriers and the performance of seals; (3) sufficiently conservative design objectives to support an appropriate performance allocation for the waste package; (4) a direct, logical tie between the geohydrology program of investigations and the performance allocation process; and (5) a fully integrated testing program across technical disciplines and program areas to minimize the number of needed tests that could adversely affect the isolation capability of the site.

During the April 11-14, 1988 workshop on alternative conceptual models, the NRC staff recommended that the DOE provide in the statutory SCP a systematic treatment of alternative conceptual models, integrated across all technical disciplines, that establishes the following: (1) a description of what is known or thought to be the case about the present and future states of each element

of the natural and engineered systems; (2) for each such element, a discussion of the uncertainties, including identification and influence of any assumptions made in the description; (3) for each such uncertainty, identification of and assessment of the significance of the alternative hypotheses, interpretations, or assumptions that are consistent with the existing data and the uncertainty associated with the existing data; (4) for each such hypothesis, information needs and investigations to discriminate between the alternatives; and (5) prioritization of the investigations based on avoidance of interference between tests and the need to resolve key issues early. The workshop that had been planned for the June-July 1988 time frame in which DOE was to present to the NRC staff its plans for responding to our concerns has been postponed by DOE until August 1988. However, at the June 28, 1988 Advisory Committee on Nuclear Waste (ACNW) meeting, DOE described its approach for providing a systematic treatment of alternative conceptual models. As described in DOE's presentation the approach appears to provide a satisfactory framework for resolving this concern. However, resolution of this concern can only be determined on review of the SCP.

5. Early Resolution of State and Tribal Concerns:

The State of Nevada attended and participated in the July 7 and 8, 1988 QA workshops, and the July 18-19, 1988 NRC-DOE meeting on exploratory shaft location and design. In addition to these formal interactions, there have been frequent informal communications by telephone between NRC and Nevada, with NRC notifying Nevada of NRC-DOE meetings and informing the State of major programmatic activities, such as issuance of the NRC CDSCP point papers. These informal communications provide the State a mechanism for calling NRC attention to Nevada's concerns about the DOE high-level waste program.

In the last Quarterly Progress Report it was indicated that Nevada had requested \$23 million for Fiscal Year (FY) 1989 to perform oversight of the DOE site characterization program and to conduct independent testing and site characterization investigations. However, the Energy and Water Development Appropriation Bill (H.R. 4567), which was passed by Congress on July 6, 1988, restricted Nevada's activities to just oversight of the DOE program and limited funding to \$11 million, with an additional \$5 million given to affected units of local government to conduct appropriate activities. The staff is presently preparing a separate Commission paper discussing the details of both the Nevada technical and quality assurance programs and their effect on staff resources.

6. Adoption of the Policy of Conservatism:

The NRC staff has had an ongoing concern that the DOE needs to be conservative in treating uncertainty in its investigations and analyses. Incorporation of conservatism in initial assumptions and designs can compensate for inherent uncertainties in investigations and analyses. The staff's review of the DOE's CDSCP indicated that the DOE still needs to take steps toward adopting conservatism in its program. This concern was highlighted, with specific examples from the CDSCP point papers, in the May 11, 1988 NRC letter transmitting the CDSCP point papers to DOE. In the April 11-14, 1988 workshop on alternative conceptual models, a proposed approach (described in Item 4 above) for providing a conservative treatment of uncertainties in conceptual models was discussed. The workshop at which DOE is expected to present its plans for responding to the staff's concerns was postponed by DOE to August from its original June-July 1988 time frame. However, at the June 28, 1988 ACNW meeting, DOE described its approach for providing a systematic treatment of alternative conceptual models. As described in DOE's presentation, the approach appears to incorporate a conservative treatment of uncertainties in conceptual models. In addition, workshops such as the July 18-19, 1988 workshop on exploratory shaft location and design and future workshops that the staff has proposed to the DOE on topics such as substantially complete containment and groundwater travel time will allow discussion of conservatism needed in the various technical areas. However, resolution of this concern can only be determined on review of the SCP.

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

In previous quarterly reports, the staff has indicated a number of available mechanisms to identify and resolve issues. As noted in earlier sections of this report, the staff's review of the CDSCP and CDSCP workshops with DOE have been effective mechanisms to identify and discuss our concerns with DOE, the State of Nevada, and other parties. Also, preparation of NRC staff Technical Positions is an ongoing mechanism that can contribute to early resolution of potential licensing issues. For example, during this reporting period the staff continued development of a draft Technical Position on repository sealing that is expected to be issued for public comment during the next quarter. Yet another mechanism is the use of DOE Licensing Topical Reports and Issue Resolution Reports. These reports appear to be most

useful for resolving potential licensing issues in the future because they depend on the collection and analyses of site characterization data by DOE.

Another available mechanism which the high-level waste staff is planning to use to facilitate early resolution of issues is rulemaking. Rulemaking is being planned to resolve regulatory uncertainties with respect to the meaning of certain parts of 10 CFR Part 60 and what must be proven to demonstrate compliance with the NRC regulations. As noted earlier, the staff is preparing a Commission paper on rulemaking activities to resolve regulatory uncertainties within the high-level waste management program.

In addition to the above discussion of the seven items, enclosed is information on the current status of NRC's activities required by the NWPA. In a memorandum to V. Stello from S. Chilk (See COMKC-88-1), dated April 27, 1988, SECY requested that issues or activities appropriate for Commission involvement and the mechanism and timing for such involvement be noted in future Quarterly Progress Reports. DOE published a draft amendment to its Mission Plan in June 1988. This will require Commission involvement, soon, since the referenced SECY memorandum also requested that NRC comments to DOE on the revised draft Mission Plan be reviewed by the Commission and signed by the Chairman.

The staff is currently reviewing the Mission Plan Amendment and is scheduled to have comments ready for Commission review in early August. The staff will continue to highlight issues or activities appropriate for Commission involvement in future Quarterly Progress Reports.



Victor Stello, Jr.
Executive Director for Operations

Enclosure:
Status of NRC's Activities Required
by NWPA

DISTRIBUTION:
Commissioners
OGC
OI
OIA
GPA
REGIONS

EDO
ACRS
ACNW
ASLBP
ASLAP
SECY

ENCLOSURE

NRC'S ROLE UNDER THE NUCLEAR WASTE POLICY AMENDMENTS ACT OF 1987

I. Repository Development Program

| <u>Provision</u> | <u>NWPA Date</u> | <u>Current Schedule</u> | <u>NRC Role</u> |
|--|------------------|-------------------------|--|
| 1. Section 112(a)-NRC must concur in Siting Guidelines promulgated by DOE. | 7/6/83 | Completed 12/84 | <p><u>Action Taken:</u> 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. <u>Current Status-</u> 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 10/29/85. A government motion to consolidate the Siting Guidelines case with Environmental Assessment-related cases was denied. In September '87, Court upheld DOE's authority to prohibit use of NWPA funds to assist states in litigation activities. The Nuclear Waste Policy Act Amendments Act of 1987 requires DOE to phase out site-specific activities for the first repository at all candidate sites other than the Yucca Mountain site, and directs DOE to proceed with site characterization at that site. Litigation is still pending with respect to the Yucca Mt. site. If the litigation results in the Siting Guidelines being vacated, DOE would have to repromulgate the Guidelines. If so, NRC would have to reconcur.</p> |

Previous Version 88/04/22
Current Version 88/07/14

| <u>Provision</u> | <u>MPAA Date</u> | <u>Current Schedule</u> | <u>NRC Role</u> |
|--|------------------|-------------------------|--|
| 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. <u>Current Status-</u> The regulations, which were under development by the staff for several years, were published in the <u>Federal Register</u> 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 <u>Federal Register</u> on 2/27/87 (52 FR No.39, pp.5992-6001). The revision to Part 60 for the definition of HLW has been terminated. An amendment to Part 61 requiring disposal of Greater-than-Class C wastes in the HLW repository, unless the Commission approves an alternative means of disposal, and obviating the need to alter existing classifications of radwastes as high-level or low-level, was published for comment in the <u>Federal Register</u> (53 FR 17709, May 18, 1988). The comment period expires July 18, 1988. |

| <u>Provision</u> | <u>NWPAA Date</u> | <u>Current Schedule</u> | <u>NRC Role</u> |
|--|-------------------|--|---|
| 3. Section 121(a)-EPA shall promulgate generally applicable standards for protection of the general environment from offsite releases from radioactive material in repositories. | 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. <u>Action Taken:</u> NRC's comments on the proposed standards were transmitted to EPA on 5/10/83. <u>Current Status:</u> 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. In July, 1987 a Federal Appeals Court invalidated EPA's standards. Further action by NRC has been postponed until EPA revises its standards or is able to have parts of them reinstated. |
| 4. Section 114(e)(1)-DOE Project Decision Schedule (PDS). Any agency that can not meet a PDS deadline must notify Congress and DOE why it can not comply. | None Specified | Completed. Revision expected early Fall 1988. | <u>Action Taken:</u> NRC must coordinate with DOE on the development of the PDS. DOE submitted a preliminary draft PDS for NRC comment on 1/15/85. NRC comments were transmitted to DOE on 3/4/85 (JDavis 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. <u>Current Status-</u> Staff reviewed the PDS for DOE response to previous NRC comments, and also for any NRC milestones that are subject to Sec.114(e)(2). NRC and DOE staff worked together to resolve specific PDS concerns. On 4/3/87, B. Rusche sent letter to H. Thompson informing him that DOE had initiated a revision to the PDS. As a result of the NWPAA of 1987, DOE is preparing a new draft PDS to be released in early Fall 1988. |

Provision

NWPAA Date

Schedule

NRC Role

5. Sections 216(a) and 301(b)- Draft Mission Plan published by DOE.

4/7/84

Published 5/84. NWPAA draft amendment received 6/30/88.

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. DOE released a new draft Mission Plan Amendment on June 29, 1988 to inform Congress of DOE's plans for implementing the provisions of the NWPAA for the civilian radioactive waste management program. Comments are due to DOE on August 29, 1988.

6. Section 301(b)-Submission of DOE Mission Plan to Congress.

6/7/84

Original submitted to Congress 7/9/85. 1988 Amendment to be submitted after public comments on draft. (Comments due 8/29/88).

Following Congressional approval of the Mission Plan, NRC will, wherever necessary, conform its waste management program planning guidance to Plan. DOE submitted a final version of the original 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 Ben Rusche, DOE, with attached comments. Letter was issued on 4/7/87. DOE submitted Mission Plan Amendment to Congress on June 9, 1987. On 12/22/87, the NWPAA was enacted. A draft Mission Plan amendment conforming to the NWPAA was released on 6/29/88 (see 5 above). After comment period on draft, DOE plans to submit Final 1988 Mission Plan Amendment to Congress.

| <u>Provision</u> | <u>NWPAA Date</u> | <u>Current Schedule</u> | <u>NRC Role</u> |
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| 7. Section 117(a)-Provision of information to States/Tribes. NRC must provide timely and complete information regarding siting, development, or design for licensing, construction, operation, regulation, or decommissioning. | In a timely manner. | Ongoing | The Commission met with State and Tribal officials on 6/16/87 to discuss the status of the national program, and NRC staff held its Second Annual Meeting of State and Tribal Representatives in the High-Level Waste Program on 6/30/87. NRC staff met with the Nevada Commission on Nuclear Projects on 9/17/87. NRC and the State of Nevada attended DOE's plenary meeting on the Consultation Draft Site Characterization Plan (CDSCP) for Yucca Mt. on 1/26-29/88 in Reno, NV. NRC staff, State of Nevada representatives, and DOE attended meetings: 1) to discuss DOE's QA plan on 3/18/88; 2) to discuss NRC's comments on the CDSCP on 3/21-24/88; 3) to discuss alternative conceptual models of the Yucca Mt. site on 4/11-13/88; and 4) to discuss the DOE QA program on 7/7-8/88. An NRC/DOE meeting on the exploratory shaft facility is scheduled for 7/18-19/88. Significant HLW documents are routinely distributed to State reps., e.g. the draft Generic Technical Position "Guidance for Determination of Anticipated Processes and Events and Unanticipated Processes and Events", draft and final point papers on the CDSCP for Yucca Mt., and the "Quarterly Progress Report on the Pre-Licensing Phase of DOE's Civilian High Level Radioactive Waste Management Program." In addition, upcoming meeting notices are sent to reps. on a weekly basis. |
| 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 | <u>Background:</u> DOE to develop draft EAs on sites under consideration after Commission concurrence on the Siting Guidelines. NRC staff to review and comment on EAs. <u>Action Taken:</u> 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 accommodate for the National Academy of Sciences (NAS) review of the ranking methodology. The EAs were issued on 5/28/86, and Washington, Nevada, and Texas were recommended to the President who approved them for characterization. NRC comments on the Final EAs (SECY-86-357) were transmitted to DOE on 12/22/86. The affected States and Indian Tribes challenged the EAs in the Ninth Circuit. DOE submitted a motion in the Ninth Circuit to dismiss the EA litigation because of the NWPAA. Responses to DOE's motion have been filed by petitioners. Resolution of the DOE motion is pending. |

| <u>Provision</u> | <u>NPAA Date</u> | <u>Current Schedule</u> | <u>NRC Role</u> |
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| 9. Section 8(b)-President must evaluate the possibility of developing a defense-waste only repository. | 1/7/85 | Final EIS received Dec.'87. | 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 agreed with DOE's recommendation of a combined repository. DOE issued for public comment a Draft Environmental Impact Statement (DEIS) on "Disposal of Hanford Defense High-Level, Transuranic and Tank Wastes" 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. On 9/3/87, DOE briefed NRC staff on how they plan to handle NRC comments on the draft EIS. Final EIS was received in late Dec.'87. NRC staff is preparing a Commission Information Paper to reflect the current status of issues raised in its review of the FEIS. The Information Paper is due to the Commission in late Summer '88. |
| 10. Section 113(b)-Submission to NRC by DOE of site characterization plan (SCP), waste form or package description, and conceptual repository design. | Before sinking shaft | Consultation Draft SCP received 1/8/88. Statutory SCP due late 1988. | NRC must review and comment on the statutory SCP. Current Status- A Draft Technical Review Plan and Administrative Plan for CDSCP review was issued by the NRC staff in 12/87. DOE issued a "Consultation Draft" SCP for Yucca Mt. on 1/8/88. The NRC staff and State of Nevada reps. attended a plenary meeting held by DOE on the CDSCP on 1/28-29/88 in Reno, NV. NRC issued their preliminary concerns on the Yucca Mt. CDSCP as draft "point papers" on 3/7/88. Two workshops were held during March and April with DOE and the State of Nevada to discuss the NRC draft "point papers". NRC staff briefed the Commission on the final "point papers" on May 4, 1988. The staff issued the final "point papers" with no significant changes from the draft on May 11, 1988. DOE is expected to present its plans for responding to NRC's concerns with the CDSCP in a workshop tentatively scheduled for August 1988. The State of Nevada will be invited to participate. DOE currently plans on issuing the statutory SCP in late 1988. |
| 11. Section 114(a)(1)(E)-DOE submits to the President and makes available to the public the Commission's preliminary comments concerning the sufficiency of the at-depth SCA and waste form proposal for inclusion in the application. | Prior to 13 below | Prior to 13 below (1994). | NRC must provide preliminary comments on whether the at-depth site characterization analysis (SCA) and waste form proposal is sufficient for inclusion in the DOE construction authorization application. |

| <u>Provision</u> | <u>M/PA A Date</u> | <u>Current Schedule</u> | <u>NRC Role</u> |
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| 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 due 1994 | NRC must review and comment on the draft EIS, which is anticipated in 1993. 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. In the June 1987 Mission Plan Amendment to Congress, DOE had retained only the 3 months for draft EIS review and comment. The Draft 1988 Mission Plan Amendment does not explicitly address the length of the review period for the draft EIS. It does state that "except for the start of exploratory shaft construction and in-situ testing, the major milestones in this schedule are the same as those given in the 1987 Mission Plan Amendment." The Final EIS is anticipated in 1994. |
| 13. Section 114(a)(2)-President recommends site to Congress for construction. | 3/31/87 (may be extended one year if necessary) | 1994 | N/A |
| 14. Sections 116(b) and 118(a)-Submittal of notice of disapproval by State or Indian tribe. | Up to 60 days after Presidential recommendation | (See 13 above.) | N/A |
| 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 within 90 calendar days of continuous session after the date of receipt by Congress of a notice of disapproval. | Within 90 calendar days of continuous session after notification. | 1995 | N/A |

| <u>Provision</u> | <u>MPPAA Date</u> | <u>Current Schedule</u> | <u>NRC Role</u> |
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| 17. Section 114(b)-Secretary submits license application (LA) to NRC. | No later than 90 days after date site recommendation is effective. | 1995 | An NRC licensing proceeding will be initiated on the license. |
| 18. Section 114(c)-NRC must submit status report to Congress. | One year after submittal of the license application and annually thereafter. | 1996 | NRC must submit an annual status report to Congress describing the proceedings undertaken through the date of such report regarding the construction authorization application, including a description of: 1) any major unresolved safety issues, and the explanation of the Secretary with respect to design and operation plans for resolving such issues; 2) any matters of contention regarding such application; and 3) any Commission actions regarding the granting or denial of such authorization. |
| 19. Section 114(d)-Commission must issue decision on construction authorization (CA). | Three years after application submitted, or 4 years after submittal (if extended) unless CA is for negotiated site (Section 405(b)(2)). | 1998 | The 3-year time period for an NRC licensing decision dictates an aggressive program of involvement with DOE and State of Nevada 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. |

| <u>Provision</u> | <u>MMPAA Date</u> | <u>Current Schedule</u> | <u>NRC Role</u> |
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| 20. Section 114(d)- NRC decision approving first application shall prohibit emplacement in first repository of a quantity of spent fuel in excess of 70,000 MTM until such time as a second repository is in operation. | | 1998 | (DOE to report to Congress between 1/1/07 and 1/1/10 on need for second repository. See Items 22 and 23.) |
| 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. | 1998 | NRC staff (Office of the General Counsel) has developed an amendment to Part 51 to establish what is meant by "to the extent practicable". NRC proposes to find it practicable to adopt DOE's EIS unless the action proposed to be taken by NRC as a condition for licensing differs in an environmentally significant way from action described in DOE's license application, or significant and substantial new information or new considerations render the DOE EIS inadequate. The proposed rule was published for comment in the Federal Register (53 FR 16131, May 5, 1988). The comment period expires August 3, 1988. |
| 22. Section 161(a)- Secretary may not conduct site-specific activities with respect to 2nd repository unless Congress has specifically authorized and appropriated funds for such activities. | N/A | N/A | <u>Background</u> - Sec.112(b)(1)(c) of the MPA of '82 required the Secretary to recommend 3 sites for characterization to the President for a second repository. DOE issued the Area Recommendation Report (ARR) on 1/16/86, which identified 12 possible second repository sites, and 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 could be better assessed. This postponement was legally challenged by States and Tribes in the first repository program. The Mission Plan Amendment of June '87 discussed the basis for extending the schedule for site-specific work on the second repository. In the Mission Plan Amendment, DOE stated that "If affirmative Congressional action is not taken [on the Amendment in FY'87], the DOE will review the more than 60,000 comments received on the ARR issued in January 1986 and prepare a final ARR that identifies potentially acceptable sites for subsequent field work." On 10/1/87, DOE notified governors of potential second repository states that DOE was resuming review of comments on the ARR. This action is now superseded by Section 161(a) of the MMPAA of '87. |

| <u>Provision</u> | <u>MWPAA Date</u> | <u>Current Schedule</u> | <u>NRC Role</u> |
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| 23. Section 161(b)-Secretary must report to Congress on need for second repository. | On or after 1/1/07, but not later than 1/1/10. | | None specified. DOE and/or Congress may seek NRC views, however. |
| 24. Section 180(a)-No spent fuel or HLW may be transported by or for DOE under Subtitle A (Repository) or Subtitle C (MRS) except in packages that have been certified for such purpose by NRC. | Not specific. | | Under an existing NRC/DOE procedural agreement, (48 FR 51875, November 14, 1983), DOE was planning to use packaging approved by NRC in accordance with 10 CFR Part 71, rather than DOE-certified packaging, for all DOE shipments performed under the MWPAA from NRC-licensed facilities to an NRC-licensed repository, MRS, or interim storage facility. (Prior to the MWPAA of '87, DOE was required under Sec.137(a) of the MWPAA of '82 to obtain NRC certification only for transportation to interim away-from-reactor storage facility. See Item 35.) The Procedural Agreement stipulated, however, that DOE might have to reexamine this intent if it appeared that "such packaging will not be available or if [DOE] can not accomplish its mandate under the MWPAA using NRC-certified packaging." Section 180(a) of the MWPAA of '87 appears to eliminate DOE's option to reexamine the intent described in the Procedural Agreement. In the Draft 1988 Mission Plan Amendment, DOE states that "all casks used in waste transportation will be certified by the NRC." |

II. Test and Evaluation Facility Program

| <u>Provision</u> | <u>NMPAA Date</u> | <u>Current Schedule</u> | <u>NRC Role</u> |
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| 25. Section 213(a)- DOE is authorized but not required to issue T&E facility siting guidelines. | 7/7/83 | DOE has not announced | <u>Current Status-</u> No guidelines have been issued. NRC will provide the required consultation if and when the guidelines are issued. (See 27 below) |
| 26. Section 216(a)-Cooperation and Coordination. | None specified | | NRC shall assist the Secretary by cooperating and coordinating on any reports under Title II (Research, Development, and Demonstration Regarding Disposal of High-Level Radioactive Waste and Spent Nuclear Fuel) including Test and Evaluation facilities. |
| 27. 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. <u>Current Status-</u> 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. As of 7/11/88, decision was still on hold. |
| 28. 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 |
| 29. 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 |
| 30. 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. |

III. Interim Spent Fuel Storage

| <u>Provision</u> | <u>MPAA Date</u> | <u>Current Schedule</u> | <u>NRC Role</u> |
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| 31. 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. (See also Item 37.) |
| 32. 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 procedures apply to applications 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. <u>Current Status:</u> The Commission approved the final rule on 9/5/85, and the final edited rule was published in the <u>Federal Register</u> on 10/15/85 (50 FR 41662). |
| 33. 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. The final rule, 10 CFR Part 53, "Criteria and Procedures for Determining Adequacy of Available Spent Nuclear Fuel Storage Capacity" establishing procedures and criteria for making NRC's determination that a utility is eligible to contract with DOE for Federal Interim Storage Capacity was published on 2/11/85 (50 FR 5563). |

| <u>Provision</u> | <u>NMPAA Date</u> | <u>Current Schedule</u> | <u>NRC Role</u> |
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| 34. Section 135(a and b)-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. | | Contracts may be entered into no later than 1/1/90. | 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. (The NMPAA authorizes DOE to enter into contracts for Federal Interim Storage no later than January 1, 1990. In the Draft 1988 Mission Plan Amendment, DOE states "To date, no Federal Interim Storage applications have been received, and, with the availability of commercial alternatives, none are expected.") See 33 above. |
| 35. Section 137(a)(1)-Transportation of spent nuclear fuel to a DOE interim away-from-reactor storage facility shall be subject to licensing by NRC and by the Department of Transportation as provided for commercial fuel under existing law. | | Not specific | NRC will certify packaging and approve physical security measures for DOE spent fuel transport to a DOE interim away-from-reactor storage facility. |
| 36. Section 137(a)(2)-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 | No direct role. |

| <u>Provision</u> | <u>NMPAA Date</u> | <u>Current Schedule</u> | <u>NRC Role</u> |
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| 37. 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 | Final Rule due Spring 1989. | NRC, using data and information from DOE dry storage demonstration and cooperative programs, will develop regulations 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. On June 17, 1987, NRC's Office of Research was requested to initiate a rulemaking through amendments to 10 CFR Part 72 to streamline the licensing process for use of spent fuel dry storage casks at reactor sites. Current Status- A Proposed Rule is due to the Commission in Summer 1988. The Final Rule is scheduled for Spring 1989. |
| 38. Section (5064)(b)(3)- DOE must consult with Commission and include views of Commission in report to Congress on use of dry cask storage. | Report due 10/1/88. | | NRC will consider mission-related portions of DOE report for possible comment as requested. The draft DOE report is expected for NRC comment in late July 1988. |

IV. Monitored Retrievable Storage Program

| <u>Provision</u> | <u>NWPAA Date</u> | <u>Current Schedule</u> | <u>NRC Role</u> |
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| 39. 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 | Completed. | 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, proposing to locate the MRS at a site on the Clinch River in Oak Ridge, TN with alternative sites on the Oak Ridge Reservation of DOE and the former site of a proposed nuclear power plant in Hartsville, TN. Congressional hearings took place on May 28 and June 18, 1987. Section 142(a) of the NWPAA of '87 annulled and revoked the DOE proposal, and at the same time authorized DOE to site, construct, and operate one MRS subject to conditions described in the Amendments Act (see item 43 below). |
| 40. Section 141(c)(1)-Submission by Secretary of an environmental assessment with respect to the MRS proposal to Congress. | 6/1/85 | Completed. | On 2/5/86, NRC staff commented on DOE's MRS proposal which included the EA. (See item 42 below.) |
| 41. Section 141(d)-DOE shall file for license with NRC for MRS. | No sooner than 60 days from date of site selection which may not take place prior to DOE recommendation to the President of a site for a repository. | 1995 | NRC has developed revisions to 10 CFR Part 72 to provide the licensing framework for the MRS, and will review DOE's application and make the necessary licensing determinations. <u>Current Status-</u> 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 <u>Federal Register</u> on 5/27/86 (51 FR 19106). The comment period closed on 8/25/86, with 196 comments received. The Final Rule (SECY-87-298) was revised by the Office of the General Counsel to reflect the NWPAA and was affirmed by the Commission on July 14, 1988. The Final Rule will be published in the <u>Federal Register</u> . |

| <u>Provision</u> | <u>NMPAA Date</u> | <u>Current Schedule</u> | <u>NRC Role</u> |
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| 42. Section 145(d)- Secretary shall prepare an environmental assessment (EA) with respect to selection of a site for NRS. EA to be based on available information on alternative technologies. EA to be submitted to Congress at time of site selection. | Not prior to DOE recommendation to President of a site for a repository. | 1994 | None specified. DOE and/or Congress may seek NRC views, however. |
| 43. Section 148(d)- License conditions for issuance of construction authorization for NRS. | | 1997 | Any license issued by NRC shall provide that construction not begin until NRC has issued a license for repository construction. Construction or acceptance of spent fuel or HLW shall be prohibited if repository license is revoked by NRC or repository construction ceases. |

V. Nuclear Waste Negotiator

| <u>Provision</u> | <u>NWPA Date</u> | <u>Current Schedule</u> | <u>NRC Role</u> |
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| 44. Section 405(b)(2)- NRC must issue final decision approving or dis-approving issuance of a construction authorization for a repository or NRS, subject to a negotiated and enacted agreement, not later than 3 years after date of submission of application. | | 1998 | As provided |
| 45. Section 407(c)(2)(B)- In EIS prepared with respect to a repository to be constructed at a site other than the Yucca Mt. site, NRC shall consider the Yucca Mt. site as an alternative to such site in the preparation of such statement. | | (Will depend on whether Negotiator obtains agreement for repository at a site other than Yucca Mt.) | As provided |

VI. Low-Level Waste Program

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

Provisions

46. 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.
47. 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.
48. 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.

NRC Role

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. The Executive Director for Operations terminated the rulemaking on November 5, 1986 until further research could be completed.

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.

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.

Provisions

49. 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.

NRC Role

Similar to Item 48 above.

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

| <u>Provisions</u> | <u>NWPAA Date</u> | <u>Current Schedule</u> | <u>NRC Role</u> |
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| 50. Section 5062-Transportation of Pu by aircraft through United States airspace. | | | This section of the NWPAA does not directly impact the civilian nuclear waste program. |
| 51. Section 223(b)-By April 7, 1983, DOE and NRC must publish a joint notice in the <u>Federal Register</u> 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 <u>Federal Register</u> 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. <u>Action Taken:</u> 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 <u>Federal Register</u> on 4/6/84, 4/5/85, 4/3/86, and 4/3/87. The fifth and final update required by the Act was published on 4/6/88 (53 FR 11398). As of 4/6/88, fifteen countries had responded to the offer. In July 1988, the Department of State was preparing to issue a cable to non-nuclear weapons states essentially repeating the offer of assistance in the FR notice. As a result of this cable, more countries may respond to the offer. |
| 52. 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. 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 <u>Federal Register</u> on 4/18/83. All necessary contracts were signed and received by the DOE on or before the 6/30/83 statutory deadline. |

| <u>Provision</u> | <u>MPPAA Date</u> | <u>Current Schedule</u> | <u>NRC Role</u> |
|--|-------------------|-----------------------------|--|
| 53. 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. <u>Actions Taken</u> -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. |
| 54. 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 | Completed | 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 <u>Federal Register</u> on 3/20/85. Proposed amendments to Part 55 dealing with simulator training requirements were published in the <u>Federal Register</u> on 11/26/84. <u>Current Status</u> : 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. |