

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

June 17, 1981

MEMORANDUM FOR: Chairman Hendrie
Commissioner Gilinsky
Commissioner Bradford
Commissioner Ahearne

FROM: *ME M* Marshall E. Miller, Presiding Officer
Waste Confidence Rulemaking Proceeding

SUBJECT: RECOMMENDATIONS CONCERNING FURTHER PROCEEDINGS

By its Memorandum and Order dated January 16, 1981, the Commission directed the Presiding Officer in this rulemaking proceeding to transmit the comments of participants to the Working Group's summary of the record, together with his recommendations concerning further proceedings. Accordingly, there are transmitted herewith as Attachment 1 copies of the comments made by 20 participants on March 5, 1981 with respect to the Working Group's Report, Identification of Issues, and Summary of the Record (January 29, 1981). My recommendations to the Commission concerning procedures to be followed for the remainder of this hybrid rulemaking proceeding follow:

I. Background

On May 23, 1979 the U.S. Court of Appeals for the District of Columbia Circuit remanded two licensing actions to the Commission, to consider whether an off-site storage solution for nuclear wastes will be available by the expiration dates of nuclear plant licenses. If not, the Commission was to consider whether that waste can be safely stored at the sites past those expiration dates and until an off-site solution is available (State of Minnesota v. NRC, 602 F.2d 412). A generic rulemaking proceeding was initiated October 25, 1979 by the Commission, both in response to that judicial decision and also as a continuation of previous proceedings conducted by it in this area (44 Fed. Reg. 61372).

In its Notice of Proposed Rulemaking the Commission stated that the "purpose of this proceeding is solely to assess generically the degree of assurance now available that radioactive waste can be safely disposed of, to determine when such disposal or off-site storage will be available, and to determine whether radioactive wastes can be safely stored on-site past the expiration of existing facility licenses until off-site disposal or storage is available" (44 Fed. Reg. at 61373).

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In undertaking a generic reconsideration or reassessment of its degree of confidence regarding the safe disposal or storage of radioactive waste from licensed facilities, the Commission chose "to employ hybrid rulemaking procedures" (*Id.*). Accordingly, members of the public were permitted to file notices of intent to participate as a "full participant" in this proceeding. Such notices of intent were filed by 55 persons and organizations, a list of which is appended as Attachment 2.

Statements of position were to be filed by full participants as their "principal contribution to the waste confidence proceeding" (*Id.*). Such statements of position were filed by 30 participants on June 9, 1980, after the Department of Energy as the lead agency on waste management filed its extensive statement of position on April 15, 1980. In accordance with the schedule established by the First Prehearing Conference Order, cross-statements of position discussing the statements filed by other participants were filed on August 11, 1980.

II. Working Group's Summaries

By its Memorandum and Order dated January 16, 1981, the Commission observed that with the filing of the participants' statements and cross-statements, "the opening stage of this proceeding as envisioned in" the original notice of proposed rulemaking has been completed. However, it noted that the Working Group was preparing a summary of the record so far compiled, and felt that the content of the record would be a major consideration affecting the choice of further proceedings. Accordingly, the Commission decided that "a firm decision on further proceedings should follow rather than precede the Commission's opportunity to review the Working Group's summary of the record and identification of issues." The participants were allowed to submit comments regarding the accuracy of the Working Group's summary of the record and its identification and description of the issues.

The Working Group filed its Report and four supplementary summaries on January 29, 1981. It emphasized strongly that the summaries are not intended to be a substitute for the record, but they are intended to assist the Commission by providing a useful guidance to a voluminous record. The Report identified 26 major issues in contention, which were organized into five principal categories as follows:

MAJOR ISSUES IN WASTE CONFIDENCE RULEMAKING

I. Procedural Issues

- 1.1 Scope of proceeding
- 1.2 Standard for finding confidence

II. Institutional issues

- 2.1 Federal role
- 2.2 Federal-State relations
- 2.3 Public acceptance

III. The DOE waste management program

- 3.1 Management capability, resources, schedules, costs
- 3.2 Regulatory framework for the DOE program
- 3.3 Socioeconomic impacts; equitable distribution of risks and benefits

IV. Technical issues for spent fuel storage

- 4.1 Safe storage of spent fuel for extended periods
- 4.2 Structural and component safety for extended facility operation
- 4.3 Risks of accidents and sabotage at spent fuel storage facilities

V. Technical issues for waste disposal

Repository site selection

- 5.1 Existence of technically acceptable sites
- 5.2 Information required for site characterization
- 5.3 In-situ testing of geologic media
- 5.4 Leaching and sorption
- 5.5 Radionuclide migration from repository to biosphere
- 5.6 Risks from human intrusion.

Engineering activities for repository site development and operation

- 5.7 Assessment of spent fuel as waste form
- 5.8 Interaction between nuclear waste and host medium
- 5.9 Engineered barriers
- 5.10 Borehole and shaft sealing
- 5.11 Retrievability

Standards for acceptable repository performance

- 5.12 Radiological dosage and health effects
- 5.13 Acceptability and adequacy of analytical models
- 5.14 Period of time required for isolation and containment of waste
- 5.15 Monitoring capability during repository operation and after closure

The Working Group analyzed the 26 issues in each of the five categories and subcategories, their logical interrelationships, the adequacy of the relevant record, and the principal positions of the participants. The

principal issues as thus identified were couched as questions which required answers in order for the Commission to decide the ultimate issues. These interrogative statements of the 26 issues are set forth as Questions Involved in Major Issues, post pp. 6-11.

The Working Group in its Summary further identified and described five key areas which it regarded as important to the Commission's ultimate findings on confidence in safe and timely storage and disposal of spent fuel. These key areas, which subsume the essential elements of the 26 issues, were thus described:

"DOE waste management program and its implementation. It is clear that, while significant progress has been made in developing the technology for safe storage and disposal of spent fuel, a great deal of work remains to be done. If waste is to be safely disposed of by around the end of the century, then a sufficient level of technical resources must be committed to the technology development and these resources must be effectively managed. Management will be most effective if DOE is able to cooperate with federal, state, and local governmental bodies and gain public acceptance of its program.

"Existence of technically acceptable sites needed for mined geologic disposal. Obviously, for mined geologic disposal to be successful, there must exist host rock masses suitable for repository siting. Moreover, such host rock masses must be located at a depth and in a geologic environment that permits excavation, mining, repository construction, and closure using available technology.

"Identification of technically acceptable sites will require understanding of the local and regional hydrology and the thermomechanical properties of the rock. The information on hydrology will contribute to understanding of potential leaching and migration of radionuclides. Some of this information can only be obtained from a program of in-situ testing in various media. Also, evaluation of risks of future human intrusion requires consideration of mineral resources at candidate sites. The record indicates that no site has yet been positively identified as acceptable, and no site under active consideration is free of potential difficulties. Thus, much of this work remains to be accomplished as DOE proceeds with its waste disposal program.

"Spent fuel as a waste form and the associated waste package. A key issue is the ability of spent fuel and the rest of the waste package to contain radioactivity during the period of concern. The decay heat, hydrology, and nuclear radiation could also affect the interaction of waste form and packaging with the host materials.

"Effectiveness of engineered systems in achieving satisfactory repository performance. For example, backfill materials can provide barriers to groundwater movement into the repository, dissipate heat from the spent fuel, buffer chemical reactions, and provide structural stability and radiation shielding. The effectiveness of engineered systems as a defense against migration of radionuclides into the biosphere could be a significant issue.

"Safe storage of spent fuel for extended periods of time. Prior to geologic disposal spent fuel must be stored safely and without serious environmental effects. The associated storage basin components and structures must also safely sustain extended operation.

"A special note is necessary concerning the institutional issues. Although they do not appear to affect the ultimate technical feasibility of safe waste disposal, the timely resolution of such issues may be necessary before safe waste disposal can be achieved. Since one of the objectives of this proceeding is to determine whether safe waste disposal will be available by the year 2007, or more generally by the time reactor licenses now being issued are due to expire, the Commission may need to address the relation between institutional issues and the schedule for waste disposal and take a position when these issues are likely to be resolved."

The fundamental importance of the institutional issues in this rule-making proceeding was further recognized in the following admonition:

"In addition to these technical issues, the provision and timing of spent fuel storage capacity seem to be critically dependent on institutional considerations which are not adequately dealt with in the DOE Statement. Among these are the authorization of funds by Congress, the willingness of present owners of independent spent fuel storage installations to sell them to DOE, and the willingness of the states, which are sensitive to the presence of wastes within their boundaries, and the public to accept a large Federal storage facility. However, the Working Group feels that the Commission has enough information available on the record and from other sources on these issues." (Report, p. 27, fn. 1)

The formulation and expansion of the 26 major issues as questions which should be considered and answered in order to resolve the ultimate issues, were thus set forth:

QUESTIONS INVOLVED IN MAJOR ISSUES

I. Procedural Issues

1.1 Scope of Proceeding

Issue

Should the Waste Confidence Proceeding address waste disposal issue other than storage and disposal of power reactor spent fuel?

1.2 Standard for Finding Confidence

Issue

Is the "reasonable assurance" standard appropriate for finding confidence in this proceeding or should some other standard such as "beyond a reasonable doubt," "more likely than not," "substantial evidence," "extraordinarily high degree of assurance" be applied?

II. Institutional Issues

2.1 Federal role

Issue

Should the Commission, for the purposes of this proceeding, assume a commitment by the Federal government to provide the policy and budgetary support necessary to carry out whatever measures are required to assure safe waste management and disposal?

2.2 Federal-State Relations

Issue

Will state and local concerns adversely affect the selection of sites or interfere with the development and operation of repositories?

2.3 Public Acceptance

Issue

Will DOE be able to gain public acceptance of its program for waste storage and disposal and, if not, will lack of acceptance significantly handicap the program?

III. The DOE Waste Management Program

3.1 Management Capability, Resources, Schedules, Costs

Issue

Can the DOE Waste Management Program be completed on a schedule consistent with the rate of generation of nuclear waste and the projected storage capacity? Is the DOE program economically feasible?

3.2 Regulatory Framework for DOE Program

Issue

Can the adequacy of the DOE Waste Management Program be evaluated now, or must evaluation await further development of the regulatory framework?

3.3 Socioeconomic Impacts; Equitable Distribution of Risks and Benefits

Issue

Does the DOE program provide for adequate assessment and mitigation of socioeconomic impacts and adequately address concerns raised regarding the distribution of risks and benefits?

IV. Technical Issues for Spent Fuel Storage

4.1 Safe Storage of Spent Fuel for Extended Periods of Time

Issue

Do the properties of spent fuel allow it to be safely stored for extended periods without significant safety, health, and environmental effects?

4.2 Structural and Component Safety for Extended Facilities Operation

Issue

Can the structure of spent fuel storage basins and associated basin components safely sustain extended periods of operation, perhaps for many decades?

4.3 Risks of Accidents and Sabotage at Spent Fuel Storage Facilities

Issue

How important are the risks posed by accidents and acts of sabotage at spent fuel storage facilities?

V. Repository Site Selection Technical Issues For Waste Disposal

Repository Site Selection

5.1 Existence of Technically Acceptable Sites

Issue

Do potentially acceptable sites exist and can they be identified within the time period at issue?

5.2 Information Required for Site Characterization

Issue

Can the state of knowledge of candidate geologic media and sites for a repository reasonably be expected to be sufficient when DOE expects to make the key decisions?

5.3 In Situ Testing of Geological Media

Issue

To what extent is in situ testing necessary prior to developing a radioactive waste disposal facility? Has DOE conducted an adequate amount of in situ testing to date?

5.4 Leaching and Sorption

Issue

Will the state of knowledge of leaching of radioactive waste and the sorption of radionuclides by candidate host media be adequately understood in time to support a valid assessment of the long-term performance of a mined geologic repository?

5.5 Radionuclide Migration from Repository to Biosphere

Issue

Will there be adequate information concerning the migration of radionuclides from the repository to the biosphere to support a valid assessment of repository performance?

5.6 Risks from Human Intrusion

Issue

Does the possibility of accidental or unauthorized intrusion into a waste repository present a significant obstacle to achieving safe waste disposal?

Engineering Activities for Repository Site Development and Operation

5.7 Assessment of Spent Fuel as Waste Form

Issue

Is spent fuel, as discharged from the reactor, an adequate waste form? Is the information currently available adequate to assess the performance of spent fuel as a waste form?

5.8 Interaction Between Nuclear Waste and Host Medium

Issue

Are waste-host rock interactions sufficiently understood to permit reliable predictions of long-term repository behavior?

5.9 Engineered Barriers

Issue

Are engineered barriers (e.g., waste packages and backfill materials) necessary to provide assurance of nuclear waste containment for the desired period of time, and, if so, will DOE develop them when needed?

5.10 Borehole and Shaft Sealing

Issue

Will the DOE research program on sealing technology, building on existing information, lead to the development of a capability to seal boreholes and shafts such that radionuclide migration will be limited to acceptable levels?

5.11 Retrievability

Issue

Should waste emplaced in a repository be retrievable and, if so, for how long? Can a system be devised for ensuring retrievability of wastes, if necessary, from geologic repositories, and can this system be implemented in the necessary time frame?

Standards for Acceptable Repository Performance

5.12 Radiological Dosage and Health Effects

Issue

What will be the radiological exposure to workers and the public during repository operation and in the long term? What are the appropriate standards for acceptable occupational and public radiological exposure?

5.13 Acceptability and Adequacy of Analytical Models

Issue

Can analytical models for predicting long-term repository performance properly account for the physical, chemical, and biological phenomena affecting radionuclide release, migration, and effects on biological systems, and yield reasonably accurate calculated consequences? To what extent can they be validated and verified?

5.14 Period of Time Required for Isolation and Containment of Waste

Issue

Do the time periods set forth in the proposed performance objectives of DOE for containment of waste and isolation of radionuclides from the biosphere provide adequate protection of the health and safety of future generations? Can DOE meet these objectives?

5.15 Monitoring Capability During Repository Operation and After Closure

Issue

Is monitoring a necessary condition for safe waste disposal? What extent of monitoring is technically feasible to monitor repository performance during operation and perhaps for an indeterminate time after closure without jeopardizing the repository's integrity?

III. Participants' Comments on the Working Group's Report

As stated supra, the comments of the participants on the Working Group's Report and Summaries are forwarded herewith as Attachment 1 for consideration by the Commission. The Working Group was requested by the Presiding Officer to review these comments, and pertinent portions of its analysis are as follows:

"There was general agreement among most of the participants that the set of 26 issues which the Working Group identified as major did encompass the principal contentions set forth in the record of the proceeding. Some expressed strong objections to the wording of certain issues and suggested additional issues for inclusion. Nevertheless, it appears that the analysis presented in the report has the general endorsement of the participants as a valid framework for Commission use in considering the record of the proceeding.

"Most participants underscored the statement on page 4 of the Working Group's Report: 'We emphasize strongly that the summaries are not intended to substitute for the record; rather they are intended to assist the Commission in its decision-making by providing what we believe to be useful guidance to a voluminous record.' In addition, some participants expressed concern about the extent to which independent judgment was used by the Working Group in developing its report.

"With regard to these concerns, it should be recognized that the Commission noted in its Memorandum and Order of January 16, 1981 that the Working Group's mission was to identify 'key' issues and that the Working Group would of necessity have to 'exercise a degree of judgment.' It is clear that the preparation of a summary of the record must involve some selectivity and discretion. In managing a record of this size, the Commission found it both necessary and reasonable that some evaluative functions be performed by the Working Group rather than the Commissioners themselves.

"In preparing the summaries, the Working Group did not judge how the evidence should be weighted in resolving serious controversies. However, as pointed out by several participants, by putting only the conclusory statements of parties against each other (as we did), the Working Group Summary may have created the impression that all assertions are equally supported and that the

Commission is free to choose among them. The Working Group is totally aware that this is not the case. No rational decision can be made in this matter without a full consideration of the record.

"Thus, the summaries did not identify the technical bases that provided support of the stated positions or indicate the technical bases that were advanced to contradict opposing positions. In particular, the bases for the positions taken on technical issues, i.e., the extensive technical literature cited by participants, were not evaluated inasmuch as this would have amounted to a first step in resolving the issues, a task not assigned to the Working Group. . . .

"With respect to the adequacy of the existing record, the Working Group notes that the overwhelming majority of the participants believe that the record is adequate for making a determination on confidence. While the Working Group identified several areas in the record where additional information may be desirable, new information on these subjects is not critical for making a decision.

"The Working Group notes, however, that the information considered necessary to support a decision depends on the decision-maker. Thus, the Working Group cannot guarantee that the Commission will find in the record all the material it will need. When the Commission begins to formulate a decision, it may have to seek supplementary information.

"In addition, it is reasonable to expect that DOE's ongoing development program will lead to new information relevant to the prospects for safe waste storage and disposal. DOE may reassess the need for some elements of their overall program. If new information is offered for inclusion in the record, the Commission has discretion to accept or reject the material for inclusion in the record and to solicit comments from the other participants. To keep this process manageable, the Working Group recommends that a fairly high threshold be established for accepting additional material into the record and an even higher threshold for soliciting and accepting another round of comments from the participants."

IV. Presiding Officer's Recommendations for Further Proceedings

A. Department of Energy's Letter of March 27, 1981

The Presiding Officer was notified by DOE in a letter dated March 27, 1981, of "a decision by DOE to discontinue its efforts to provide Federal government-owned or -controlled away-from-reactor (AFR) storage facilities." It was indicated that there had been a change in DOE's projections of the quantity of spent fuel that might require interim storage. Such change was believed to make more feasible various actions that utilities could take to meet spent fuel storage needs, prior to the availability of a disposal facility. DOE concluded that this new information did not change its previous position that there exists an overall waste management program capable of handling, storing and disposing of spent fuel, and that "the existing record herein is more than adequate for the Commission to determine that questions of the disposition of spent nuclear fuel need not be addressed in individual NRC licensing proceedings."

This new information and change of position by DOE is significant and important to the so-called institutional issues discussed above. It clearly raises the question of who, if anyone, will provide off-site storage prior to the operation of any geologic or other ultimate repository. There is also a question whether this change of DOE policy will significantly reduce the likelihood that spent fuel will be removed from on-site storage pools by the end of their respective licensing periods.

It should be noted that so far none of the participants has requested supplementation of the existing record by another round of comments by the participants. The Working Group has also recommended against another comment period focused on this DOE letter. In view of the Presiding Officer's recommendations infra, for establishing a mechanism for oral presentations of views by the participants, no separate solicitation of views appears to be necessary.

B. Oral Presentations to the Commission

Throughout this proceeding there has been general recognition that the Commissioners alone should make the ultimate decision regarding their degree of confidence that radioactive wastes will be safely disposed of.

The Commission's responsibility in addressing problems of the greatest importance involved in "the complex and vexing question of the disposal of nuclear wastes", was recognized in the judicial decision which triggered this proceeding as follows:

"The breadth of the questions involved and the fact that the ultimate determination can never rise above a prediction suggest that the determination may be a kind of legislative judgment for which rulemaking would suffice.... As Commission counsel rightly notes, it is for the Commission to decide the ultimate question of certainty implicit in health and safety judgments and to resolve technical disagreements..." (State of Minnesota v. NRC, 602 F.2d 412, 417, 419).

The Commission itself has also recognized the great importance of its own direct involvement in this proceeding, and the primacy of its own judgment in such decision-making. It noted that the Working Group's specified mission was to identify "key" issues and to that end it was required to exercise some degree of judgment in addition to performing "ministerial" duties. However, the Commission further stated:

"Even the preparation of a summary of the record clearly involves some selectivity and discretion. In managing a record of this size the Commission finds it both necessary and reasonable that evaluative functions at this level be performed by the Working Group rather than the Commissioners themselves. At the same time, the Commission has made clear that the Working Group's technical evaluation of the record to determine completeness is not to include a judgment of how the evidence should be weighted in resolving serious controversies. That judgment the Commission has reserved for itself." (Emphasis supplied) (Commission's Memorandum and Order dated January 16, 1981, at 5).

The Presiding Officer recommends the following procedures to govern the next phase of this waste confidence rulemaking proceeding:

- (1) The Commission should issue a second prehearing order setting out the procedures to be followed for the remainder of the hearings, as envisioned by the original Notice of Proposed Rulemaking (44 Fed. Reg. 61372 at 61374).
- (2) Oral presentations by the participants before the full Commission should be scheduled by appropriate notice. Such presentations would be roughly analogous to oral arguments before an appellate court, in that they would be based upon the existing record and would not involve the taking of evidence. They would be preceded by the filing of written statements containing succinct summaries of the participants' (or consolidated participants') arguments and views on "the merits of the legal, technical and institutional issues that have been raised in this proceeding" (44 Fed. Reg. at 61374).

- (3) The written statements of the participants should identify briefly the issues to be addressed orally, with specific page citations to documents or discrete portions of the record to be reviewed. At the oral hearing, the participants may assume that the Commissioners are familiar with their written prehearing statements, the Working Group's summaries, and the participants' comments on the summaries.
- (4) In advance of the oral hearing, the participants should be strongly encouraged to consolidate themselves into groups voluntarily with other participants holding similar views, and to select a lead representative to make their oral presentation. If adequate voluntary consolidation is not agreed to in advance, the Presiding Officer shall order appropriate consolidation of participants for oral presentations, based upon their previous filings as well as the contents of their prehearing written summaries of proposed oral arguments.
- (5) The Commissioners reserve the right to ask questions at any time during the course of oral arguments, and the participants should be prepared to obtain answers promptly from the "representatives, both technical and legal, of the groups into which the participants have been consolidated" (44 Fed. Reg. at 61374).
- (6) Inasmuch as the oral presentations before the Commission do not constitute an evidentiary hearing, there will be no necessity nor opportunity for cross-examination of participants by other participants. However, the participants may include in their written prehearing summaries "written questions to the Commission for it, in its discretion, to ask of participants" (Id.).
- (7) The date of the oral presentations should be established for a time when the full five-member Commission is in place. A time limit should be placed on oral statements, perhaps 30 or 45 minutes per statement. The Commission should expect to sit consecutively for two full working days for this hearing.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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USNRC

COMMISSIONERS:

Nunzio J. Palladino, Chairman
Victor Gilinsky
Peter A. Bradford
John F. Ahearne
Thomas M. Roberts

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In the Matter of
PROPOSED RULEMAKING ON THE STORAGE AND
DISPOSAL OF NUCLEAR WASTE
(Waste Confidence Rulemaking)

PR-50, 51

(44FR61372)

SECOND PREHEARING MEMORANDUM AND ORDER

I. Background

On May 23, 1979 the U.S. Court of Appeals for the District of Columbia Circuit remanded two nuclear plant licensing amendment actions to the Commission, to consider whether an off-site storage or disposal solution for nuclear wastes will be available by the expiration dates of the nuclear plant licenses in question. If not, the Commission was to consider whether spent fuel can be safely stored at those sites past those expiration dates and until an off-site solution is available (State of Minnesota v. NRC, 602 F.2d 412). A generic rulemaking proceeding was initiated on October 25, 1979 by the Commission, both in response to that judicial decision and also as a continuation of previous proceedings conducted by it in this area (44 Fed. Reg. 61372).

In its Notice of Proposed Rulemaking the Commission stated that the "purpose of this proceeding is solely to assess generically the degree of assurance now available that radioactive waste can

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be safely disposed of, to determine when such disposal or off-site storage will be available, and to determine whether radioactive wastes can be safely stored on-site past the expiration of existing facility licenses until off-site disposal or storage is available." 44 Fed. Reg. at 61373.

In undertaking the above generic reconsideration the Commission chose "to employ hybrid rulemaking procedures" (Id.). Members of the public were permitted to file notices of intent to participate as a "full participant" in this proceeding. Such notices of intent were filed by 56 persons and organizations. Statements of position were to be filed by full participants as their "principal contribution to the waste confidence proceeding" (Id.). Such statements of position were filed by 32 participants before June 9, 1980, after the Department of Energy (DOE) as the lead agency on waste management filed its statement of position on April 15, 1980. In accordance with the schedule established by the First Prehearing Conference Order, cross-statements of position discussing the statements filed by other participants were filed by 21 participants on August 11, 1980.

The Presiding Officer by a May 29 order offered all participants an opportunity to file before October 6, 1980 their suggestions as to further proceedings, additional areas of inquiry or further

data or studies. Twenty-three participants in fifteen submittals availed themselves of this opportunity.

By its Memorandum and Order dated January 16, 1981, the Commission observed that with the filing of the participants' statements and cross-statements the opening stage of the proceeding as envisioned in the original notice of proposed rulemaking has been completed. However, it noted that the Working Group was preparing a summary of the record so far compiled, and felt that the content of the record would be a major consideration affecting the choice of further proceedings. Accordingly, the Commission decided that a firm decision on further proceedings should follow rather than precede the Commission's opportunity to review the Working Group's summary of the record and identification of issues. The Working Group filed its report on January 29, 1981. The participants were allowed to submit comments regarding the accuracy of the Working Group's summary of the record and its identification and description of the issues. Such comments were made by 20 participants by March 5, 1981.

II. NRDC's Motion for Judgment

On August 28, 1981 the Natural Resources Defense Council (NRDC) filed a motion requesting a prompt ruling that, on the basis of the present record, there is not reasonable assurance that off-site

storage or disposal will be available by the year 2007-2009. In support of this motion NRDC asserted that the Administration has changed its policy with respect to reprocessing of spent fuel. NRDC contended that, based upon a policy shift by the Administration favoring reprocessing, NRDC was entitled to a ruling now of no reasonable assurance in the availability of off-site spent fuel storage by 2007 because the schedules and timetables analyzed in the DOE position statement were based on storage and disposal of spent fuel, not reprocessed waste.

Seven other participants have filed answers arguing that this motion for judgment should be denied. The American Nuclear Society, Niagara Mohawk et al, the Atomic Industrial Forum, the Tennessee Valley Authority, the Department of Energy, Utility Nuclear Waste Management Group - Edison Electric Institute (UNW26-EEI), and Consumers Power Company have filed responses. DOE contends that the policy shift toward reprocessing should not affect the Commission's ultimate decision in this proceeding since a purpose of the proceeding is to determine that there is at least one safe means of disposal and much of DOE's program is not dependent upon the waste form. Niagara Mohawk and others stress that the record already compiled in this proceeding adequately demonstrates that reprocessed wastes as well as spent fuel can be safely stored and disposed of. On October 5, NRDC submitted a Request to File Consolidated

Reply to Responses to NRDC Motion for Judgment and Reply to Motion to Strike. In this filing they reiterated their central point stated above and continued to urge a decision now of no confidence that safe waste disposal will be achieved by 2007-2009. On October 8, 1981, the UNWMB-EEI filed a response in opposition to the NRDC Request to File Consolidated Reply.

Because this is a rulemaking proceeding, the Commission may consider information from many sources. The Commission notes that the August 28 NRDC motion was directed to the Presiding Officer of the Waste Confidence proceeding. The October 5 NRDC reply was addressed to the Presiding Officer, but urged the Commission to find no confidence in the event that the Presiding Officer did not have the authority to grant their August 28 filing. The Presiding Officer does not have the authority to make such a judgment in this proceeding. Determinations of confidence are to be made by the Commissioners themselves.

The Commission believes that the issue raised in the August 28 NRDC motion is one of several recent developments which may bear on the Commission's ultimate decision. Accordingly, the Commission accepts and will consider the NRDC filings and the responsive

filings by other participants as a part of the record in the Waste Confidence proceeding and will seek participants' views concerning the applicability of recent developments to its decision in this proceeding.

III. Next Phase of the Proceedings

While most participants indicated in their recommendations for further proceedings that they believe the record is adequate for a decision, the Commission believes that limited further proceedings will be useful to allow the participants to state their basic positions directly to the Commissioners and to enable the Commissioners to discuss with the participants some specific issues including those described later in this order and others based on participants' positions or statements. Therefore, the following procedures are hereby adopted.

The next phase of this proceeding will provide for oral presentations to the Commissioners addressing first the issues already raised in this proceeding, or other significant information which participants believe should be brought to the Commission's attention. Second, presentations should address how the recent developments enumerated below may bear on a Commission decision in this proceeding.

To conduct oral presentations on a manageable basis, it is necessary to have a consolidation of participants holding similar views.

Consequently, for purposes of this order, participants are consolidated into the following groups. The statements already submitted by the participants suggest that the groups listed below constitute a reasonably representative consolidation. The consolidation and sequence of presentations is as follows:

1. Department of Energy
2. Arms Control and Disarmament Agency, Council on Environmental Quality, Office of Science and Technology Policy, and United States Geological Survey.
3. California Department of Conservation, California Energy Commission, Delaware, Illinois, Massachusetts, Minnesota, Missouri, New York, Ocean County and Lower Alloways Creek Township (New Jersey), Ohio, South Carolina, Vermont, and Wisconsin.
4. American Institute of Chemical Engineers, American Nuclear Society, Association of Engineering Geologists, Atomic Industrial Forum, Bechtel Corp., Consumers Power Co., General Electric, Neighbors for a Safe Environment, Scientists and Engineers for

Secure Energy, Tennessee Valley Authority, Utilities Group (Niagara Mohawk, Omaha Public Power Dist., Public Service Co. of Indiana), and Utilities Nuclear Waste Management Group--EEI.

5. Environmental Coalition on Nuclear Power, Marvin Lewis, Mississippians Against Disposal, Natural Resources Defense Council, New England Coalition on Nuclear Pollution, Safe Haven, Ltd., Sensible Maine Power, William Lochstet.

Each consolidated grouping may file a single written statement prior to the oral presentations within 45 days of the date of this order. These written statements should succinctly outline the grouping's arguments and views on the merits of major issues that have been identified in the proceeding, with particular reference to those key points to be addressed orally. Page citations to source documents in the record must be included. These statements may also include suggestions of key questions for the Commission in its discretion to ask of other participants. In any case statements should not exceed 20 pages in length. In addition, each grouping should designate to the Presiding Officer its spokesperson to make the oral presentation on behalf of the grouping. Groups may wish to have technical experts available to answer questions or offer supporting statements. DOE should plan for a presentation of no

more than one hour. Each of the other proposed groupings should plan for a presentation of their views on the issues before the Commission not to exceed thirty minutes. However, additional time will be provided as necessary to answer questions posed by the Commission in the course of the presentations. At the conclusion of the oral presentations, the Commission will allow a brief period for rebuttal.

At the oral presentations, the participants may assume that the Commissioners are familiar with their original position and cross statements, the Working Group's summaries, the participants' comments on the summaries, and the statements filed by consolidated groupings. The Commissioners reserve the right to ask questions at any time during the oral presentations. The participants should be prepared to answer technical as well as more general questions.

In addition to the procedures outlined above for oral presentations and the associated statements to be filed by consolidated groups, individual participants may file written supplementary statements containing their views on how the recent developments outlined below may bear on a Commission decision in this proceeding. Participant supplementary statements should not exceed 20 pages in length and should be filed 45 days after the date of this order.

IV. Recent Developments

Participants are requested to address in their written statements as well as their oral presentations the significance of recent developments listed below to the Commission's decision in this proceeding.

(1) Reprocessing and other waste management program changes

On October 8, 1981, the President issued a statement outlining a policy favoring commercial reprocessing.¹ In that statement he also instructed the Secretary of Energy, working closely with industry and state governments, to proceed swiftly toward deployment of means of storing and disposing of commercial high-level radioactive waste. He said that the steps must be taken now to demonstrate to the public that the problems associated with management of nuclear waste can be resolved.

In addition, as NRDC pointed out, the Deputy Secretary of Energy testified that, "The waste management program that we are proposing differs markedly with the previous Administration's program. . . We believe that the cornerstone of the waste management program should be that the reference waste form, as it was prior to the Carter Administration and as is in concert with

¹Presidential Nuclear Policy Statement, October 8, 1981.

the rest of the world, is reprocessed high-level waste [instead of spent]."¹

Also, the President has proposed to dismantle the Department of Energy and place its functions in other Federal agencies.² Since this may bear upon the waste management program organization and management issue, participants may wish to comment on the implications of this potential development.

Recent congressional testimony³ by DOE's Assistant Secretary for nuclear energy indicated that the Department's current plan for high-level waste disposal will emphasize development of a test and evaluation (T&E) facility for the testing of disposal concepts which could affect the schedule for repository development and construction reported in the DOE Position Statement. The Commission is also interested in participants' views on this matter.

(2) Away-from-reactor storage policy

On March 27, 1981, the Department of Energy (DOE) submitted information to the Presiding Officer concerning a change in

¹July 9, 1981 statement of Kenneth Davis, Deputy Secretary, U.S. Department of Energy before the Subcommittee on Energy and the Environment, Committee on Interior and Insular Affairs at 4-5.

²Presidential address to the Nation, "Program for Economic Recovery," September 24, 1981.

³October 6, 1981 statement of Shelby T. Brewer, Assistant Secretary for Nuclear Energy, U.S. Department of Energy before the Senate Committees on Energy and Natural Resources and Environment and Public Works.

the DOE program wherein they have "discontinue[d] [their] efforts to provide federal government-owned or controlled away-from-reactor (AFR) [spent fuel] storage facilities." The submittal explains that this change is a result of a "change (reduction) in DOE's projections of the quantity of spent fuel that may require interim storage" and a later time frame for need for such storage.

The submittal states that the previously planned Federal AFR storage is only one of several possible approaches to satisfying storage needs. The letter suggests that the Commission should assume any additional storage requirements will be satisfied by any one or more ways described in the letter.

The participants are asked to comment on the significance to the proceeding of issues, particularly institutional concerns, resulting from this policy change and to comment on the merits of DOE's new projection of spent fuel storage requirements and on the technical and practical feasibility of DOE's suggested alternative storage methods.

V. Schedule

The schedule below shall be followed.

(Note: Assumes order approved by the Commission on November 6.)

- (1) Participants shall file any objection to the Order with the Presiding Officer. November 20
- (2) Participants may file individual or consolidated written statements prior to oral presentations. December 21
- (3) Tentative date for oral presentations to the Commission. January 11

Following the oral presentations, the Commission will decide what additional steps, if any, are necessary and will notify the participants as appropriate.

It is so ORDERED.



Dated at Washington, D.C.
this 2nd day of November 1981.

For the Commission


Samuel J. Chilk
Secretary of the Commission