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

September 29, 1981

MEMORANDUM FOR: Chairman Palladino
Commissioner Gilinsky
Commissioner Bradford
Commissioner Ahearne
Commissioner Roberts

FROM: Forrest J. Remick

SUBJECT: TENTATIVE SCHEDULES FOR WASTE CONFIDENCE PROCEEDING

Tentative Waste Confidence Proceeding Schedule

At the request of the Chairman, OPE has prepared the attached schedule for the future of the Waste Confidence proceeding. The key elements of this schedule--including the time required--were constructed on the basis of information received from the proceeding's Presiding Officer (Marshall Miller) and have been reviewed by the Working Group in the course of preparation of the draft schedule. We have used the Presiding Officer's recommendation of June 17, which the Chairman and Commissioner Ahearne voted to approve, as the basis for preparing these schedules through an oral presentation phase. This schedule provides for mandatory consolidation of parties (currently about 65) as required in order to keep oral presentations to a manageable set (perhaps no more than a dozen).

The Presiding Officer's June 17 recommendation calls for participants to prepare written submittals which are succinct summaries on the merits of the legal, technical and institutional issues raised in the proceedings. Also, we believe that the Commission's pre-hearing order should ask participants to comment on how several recent developments may have affected the basis for conclusions drawn in their previous position statements. On the basis of our analysis below, we believe that there is good reason for the Commission to highlight in its pre-hearing order its interest in obtaining the participants' views on DOE's spent fuel storage policy and on the implications of a policy to reprocessing. In that connection we would prepare specific questions proposed for inclusion in the Commission's pre-hearing order.

The Commission has reserved for itself decisions on the ultimate questions in this proceeding. If the Commission itself makes the decision in the proceeding, the Commission will need to make its own in-depth review of the record and Working Group products at the conclusion of the oral presentation,

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in preparation for its decision on next steps. In all of our scenarios, we have assumed that the Commission will take time (our estimate is roughly 90 days) after the oral arguments to decide whether it has sufficient information on which to base its decision; if it decides it does, what the nature of that decision should be (Scenario A) or if it decides it does not, what the Commission's next steps should be (Scenarios B and C).

In Scenario B, we assume that the Commission is able to narrow the focus of the proceeding to a subset of issues on the basis of the participants' summary written statements and oral presentations. On a subset of issues, the Commission might desire specific supplemental position statements containing updated information, revisions in plans, data, etc.

In Scenario C, we assume that the Commission decides it has been faced with irreconcilable conflicting evidence and decides it must seek further expert opinion--perhaps even impaneling a group to take testimony in an adjudicatory format.

In the course of preparing these schedules we have incorporated a considerable amount of time for Commission discussion and preparation of a decision. Depending upon other Commission workload and priorities, the Commission might elect to accelerate the proceeding. We have also included in these schedules provision for circulation for public comment of a draft Commission decision, and analysis of comments received before publishing a final Commission decision on Waste Confidence.

Recent Developments

Commissioner Ahearne asked the Working Group to consider whether it would be necessary for the Waste Confidence proceeding to consider reprocessed waste (Memorandum to Director, OPE, September 3, 1981). The NRDC motion of motion of August 3, 1981 called attention to Kenneth Davis' testimony as marking a new policy course by DOE to reprocess rather than dispose of spent fuel. As a result NRDC urges the Presiding Officer to issue a summary disposition in the Proceeding for no confidence. Since Commissioner Ahearne's request to reconsider this issue, DOE and other participants has responded to NRDC's motion. DOE, supported by a number of other participants argues that the emerging policy course in favor of reprocessing "...will not impact the current program for developing a mined geologic repository." While we do not necessarily agree with DOE that a reprocessing course does not significantly affect the record, at this point we would not share the NRDC view that this and other developments affect the proceeding so fundamentally as to require summary disposition by the Presiding Officer for no confidence. Furthermore, the Presiding Officer does not have the authority to make a summary disposition of the proceeding.

As was noted in Edward Hanrahan's March 10 memorandum to Commissioner Ahearne, which addressed the extent to which the issue of reprocessing enters this proceeding, for the purpose of maintaining a reasonable basis for continued licensing of reactors, it is sufficient to consider whether spent fuel can and will be disposed of safely and whether it can be safely stored until disposal is available. DOE and other participants in their recent submissions stress that the Commission need only find that there is at least one safe method of storing or disposing of high level waste. We continue to believe that the centerline of the Waste Confidence proceeding should be on the safe storage and disposal of spent fuel as outlined in our March 10 memorandum. In particular, our view, now as then, is that even though a policy shift toward reprocessing is occurring, it would be more appropriate to consider reprocessing in a proceeding to license reprocessing and recycle facilities rather than in the Waste Confidence proceeding.

With respect to the earlier memorandum, we continue to endorse its analysis and content except in the following respects: it seems that DOE is much closer to adoption of a reprocessing policy than it was on March 10. However, no formal policy announcement has yet been made. In DOE's view, its program for identification and characterization of potential repository sites and the DOE program for dealing with institutional concerns do not depend on waste form. However, as the Working Group suggested in its March 10, 1981 memorandum to Commissioner Ahearne, supplementary information on engineering design and performance of the waste forms and associated packages would be needed if reprocessing of waste were to be considered in detail in this proceeding (this is a matter for the Commission itself to decide). It may be possible to permit DOE and other participants to address these issues in the context of oral presentations--perhaps augmented by some technical data supplied for the record following their presentation. In summary, we continue to believe that it would not be desirable to call for additional supplementation of the record by another round of position statements and cross-statements so long as the Commission's main objectives can be achieved. However, in light of DOE's increased interest in reprocessing, we recommend that the Commission specifically ask DOE and other participants to describe in more detail at the oral presentations how current plans with regard to reprocessing would affect the Commission's confidence. We think that this is the most efficient way to handle these issues.

Indeed, a central issue in the Waste Confidence proceeding is whether the Administration's developing change in policy to call for reprocessing of spent fuel has affected in a significant manner the Commission's ability to find whether "...it is reasonably probable that an offsite

fuel repository will be available...." by 2007.[1] The present record contains no information on the details of when reprocessing facilities would be available, the fraction of spent fuel to be reprocessed, or just how spent fuel would be stored pending its eventual reprocessing. By their argument in the submission of September 15, 1981, DOE contends implicitly that such information is not essential in order for the Commission to find confidence. Presumably, the Commission would develop its own judgment on the key issue of whether this information is essential as a result of consideration of the record in the proceeding and the oral presentations. If the Commission subsequently concludes that there is an essential information gap in the record on this issue, it might elect to either require supplemental information from the participants (i.e., statements and cross-statements) or if it became clear that things had changed too much to permit a legally sufficient finding of confidence, the Commission might elect to terminate the proceeding on the issue of the Commission's confidence in safe waste disposal as recommended by NRDC and require either (a) reactor licensing and spent fuel pool expansion proceedings to consider environmental impacts of on-site storage beyond expiration of operating licenses or (b) perform this environmental assessment of extended on-site storage generically.

In conclusion, the Working Group while recognizing that new developments in the waste management area inevitably occur with time for a lengthy proceeding and make the information base acquired earlier increasingly dated, believes that the judgment on further proceedings should be made by the Commission after it has considered the record and heard oral presentations by the participants on this point. In accordance with the Commission's instructions, (Commission Memorandum and Order of January 16, 1981) the Working Group has identified issues in controversy among the participants in the proceeding, but has refrained from making recommendations or expressing views regarding the conclusions which the Commission should itself reach on the issues. While the Commission may wish to consider to some extent in this proceeding the questions of when reprocessing facilities will be available, how much spent fuel will be reprocessed, and how spent fuel will be stored pending eventual reprocessing, it will certainly have to consider those questions in any case in the course of any licensing proceedings on reprocessing and recycle.

Attachment:
As stated

cc: Marshall Miller
Samuel Chilk
Leonard Bickwit
William Dircks
Harold Denton
John Davis
Robert Minogue
Howard Shapar

[1] In a concurring opinion in Minnesota v. NRC, Circuit Judge Tamm wrote that "There must be a determination whether it is reasonably probable that an offsite fuel repository will be available when the operating license of the nuclear plant in question expires." The full court said that it "...contemplates consideration on remand of the specific problem isolated by petitioners - determining whether there is reasonable assurance that an off-site storage solution will be available by the years 2007-09, the expiration of the plant's operating licenses, and if not, whether there is reasonable assurance that the fuel can be stored safely at the sites beyond those dates."

ATTACHMENT

	Time Estimated	Approximate Date of Action
1. Oral presentations		
-- Commission issues second prehearing order for procedures for remainder of hearings	30 days	(Oct. 81)
-- Voluntary consolidation of participants and notification of Commission. Subsequently, participants prepare and submit written statements wich succinct summaries on "the merits of the legal, technical and institutional issues raised in the proceedings" (44 FR 61374). Also, submit proposed questions for use by Commission.	60 days	(Dec. 81)
-- Possible order for consolidation (if necessary).	30 days	(Jan. 82)
-- Oral presentations to Commission. Commissioners may ask questions of participants (or from other sources, e.g., Commissioner's staff, Working Group, etc.). Time limit of 30 to 45 minutes per presentation.	2 days	(Jan. 82)
2. Commission completes review of record of oral presentations, the Working Group critique and summaries and the participants' direct and cross statements. Conducts Commission discussion sessions (as needed).	90 days	(Apr. 82)
3. Possible alternative decision paths following oral presentations to the Commission and completion of Commission review of record		
A. Commission decides no supplementary information needed		
1) Commission provides guidance for preparation of draft decision	0 days (Result of step 2 above)	
*2) Commission (or designated staff) prepares and issues draft decision for public comment	90 days	(Jul, 82)
*3) Deadline for receipt of public comments	60 days	(Sep, 82)
*4) Analysis of public comment and additional Commission consideration to develop final decision	90 days	(Jan, 83)

* These steps are optional. The Commission could, upon receiving the draft decision from the staff, proceed directly to the issuance of a final rule. he staff would require approximately 90 days to prepare the draft decision.

5)	Commission issues final rule		
B.	Commission decides supplementary information (on a limited number of issues) should be requested from participants		
1)	Commission request issued for additional information	0 days (Result of step 2 above)	(Apr. 82)
2)	Participants' prepare and submit responses for added information	90 days	(Jul. 82)
3)	Analysis by designated staff or supplementary information	120 days	(Nov. 82)
4)	Commission discussion and provision of guidance to designated staff for preparation of draft decision	60 days	(Jan. 83)
*5)	Commission (or designated staff) prepares and issues draft decision for public comment	90 days	(Apr. 83)
*6)	Deadline for receipt of public comments	60 days	(Jun. 83)
*7)	Analysis of public comments and additional Commission consideration to develop and issue final decision	90 days	(Oct. 83
8)	Commission issues final decision		
C.	Commission decides it needs expert assistance (e.g., a "blue-ribbon" panel) on a specific set of issues		
1)	Commission request issued for expert assistance	90 days** (Result of step 2)	(Jul. 82
2)	Experts prepare and submit responses to specific issues in controversy	120 days	(Nov. 82
3)	Analysis of experts' response	120 days	(Mar. 82

* These steps are options. The Commission upon receiving the draft decision from the staff, proceed directly to the issuance of a final rule. The staff would require approximately 90 days to prepare the draft decision.

** The 90 day period allows time for the Commission to select members of the panel, perform the necessary contracting, etc.

4)	Commission discussion and provision of guidance to staff for preparation of draft decision	60 days	(May, 83)
*5)	Commission prepares and issues draft decision for public comment	90 days	(Aug, 83)
*6)	Deadline for receipt of public comments	60 days	(Oct, 83)
*7)	Analysis of public comments and additional Commission consideration to develop and issue a final decision	45 days	(Feb, 84)
8)	Commission issues final decision		

STATE OF CALIFORNIA—THE RESOURCES AGENCY

EDMUND G. BROWN JR., Governor

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December 18, 1981

Mr. Samuel J. Chilk, Secretary
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Mr. Marshall E. Miller, Esq.
Presiding Officer
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Dear Sirs:

PR-50, 51 (44 Fed. Reg. 61372)
Waste Confidence Rulemaking

Enclosed for filing in the above referenced case are the "Consolidated Statement of the State Group" and the "Statement of the California Department of Conservation and California Energy Commission Concerning the Impact of Recent Developments on a Commission Decision in the Proceeding."

As noted on the attached Proof of Service, all participants in this proceeding have been served a copy of this filing.

Sincerely,

Dian Grueneich

DIAN GRUENEICH
Deputy General Counsel

DG:dr

cc: All Participants

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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USNRC

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In the Matter of:	)	
	)	
Proposed Rulemaking on Storage Disposal of Nuclear Waste, 10 CFR Parts 50 and 51	)	PR-50, 51 (44 FR 61372)
	)	
(Waste Confidence Rulemaking)	)	

CONSOLIDATED STATEMENT OF THE STATE GROUP

I. INTRODUCTION

This consolidated Statement is submitted on behalf of the California Department of Conservation ("CDC"), California Energy Commission ("CEC"), Illinois, Massachusetts, Minnesota ("Minn."), Attorney General of the State of New York ("NYAG"), Ocean County and Lower Alloways Creek Township (New Jersey), Ohio, Wisconsin and Delaware, pursuant to the Commissions' Second Prehearing Memorandum and Order, dated November 6, 1981. The remaining participants consolidated in Group 3, listed on p. 7 of the Memorandum and Order, have not joined in this Statement.

There is no factual basis today for confidence either that nuclear waste will be safely disposed of by the necessary time frame or that it will be safely stored until it is disposed of safely. Furthermore, because a permanent, safe solution to the waste management problem will not be available when needed, both the California Energy Commission and the Attorney General of the State of New York support a policy of ceasing to issue new construction permits for

nuclear power plants until the technical, institutional, social and political barriers are significantly diminished.

II. THE COMMISSION MUST DETERMINE WHETHER OR NOT IT IS NOW CONFIDENT, ON THE BASIS OF EXISTING FACTS, THAT THERE WILL BE SAFE DISPOSAL OF NUCLEAR WASTE.

At issue is not whether radioactive wastes produced by nuclear facilities "can" be disposed of safely but whether they "will be" safely disposed by a specified date. 44 Fed. Reg. 61372-73 (October 25, 1979) (emphasis added).[1] The mere conclusory statements by DOE that there can be safe waste disposal are an insufficient basis for the NRC to conclude that it has assurance that wastes will be disposed of safely.

DOE has not met its burden of proving that a factual basis exists. Its filings consistently ignore past events, do not show reasonable facts existing today for assurance that waste disposal will occur, and instead speculate that disposal can, may, or should occur. The decision to abolish DOE makes DOE's position even more illusory.

In order to make a finding of confidence at this time, the Commission, among other things, would have to conclude,

1. At a minimum, the legal standard for the NRC to use is whether it has "reasonable assurance" that wastes will be disposed of safely. While participants have used differing phrases to describe this burden, all states joining in this filing agree that DOE's filings do not satisfy the "reasonable assurance" standard.

from facts existing today, that all technical and political-social ("Institutional") problems will truly be resolved by a specified date. However, there is no basis for reaching that conclusion. Indeed, even if safe disposal is technically feasible, in the sense that no known scientific principle would prevent its being achieved, nonetheless, the Commission could not find confidence because (i) many repository sites are needed but no site has been found which would be suitable, and questions are known to exist about the suitability of all the various regions and media under consideration; (ii) it is possible that technical solutions to outstanding problems will not be found by the specified date; and (iii) institutional problems could prevent the establishment of any repositories by the specified date.

Instead of discussing long-term safety, DOE frames its case in terms of whether it will succeed in getting one repository licensed by the NRC by the year 2007. But that question misses the point. First of all, many repositories will be needed, not only one. Secondly, even if a license is obtained, that does not assure establishment of a repository because public opposition could prevent it. Further, the mere existence of a license does not establish that the repository will function without accident for the necessary time period. Events at Three Mile Island, Brown's Ferry and Diablo Canyon demonstrate this point.

Actual facts, rather than beliefs, are required in determining confidence, particularly in view of the past

history of waste disposal efforts ("an unbroken history of failure"). (CEC SP 30; see also Illinois SP 4-5; Minn. SP, Dr. Abrahamson's comments 13-20.) Additionally, the nature of the problem--extremely long-term danger to many future generations--calls for the highest care in reaching conclusions in this proceeding.[2]

DOE and the industry groups say erroneously that because research is planned or in process we can be confident today that safe disposal will be achieved. However, for years government officials have misled the public with assurances that the technical solutions were at hand. The truth is that we do not know today whether the ongoing research will remove all obstacles; instead, it may fail to

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2. Disposal of nuclear waste presents unique problems because never before has any society had to devise plans to assure safety so far in the future, and never before have government agencies had to devise regulations to assure such safety. Thus, it is more than natural to expect that errors will occur in the technology, and that the regulations themselves will be less than perfect. Indeed, the U.S. Geological Survey ("USGS") has noted that waste disposal "requires new and hitherto untried technology" which "typically" involves "initial failure of some components to perform as originally conceived, discovery of new problems to be resolved, and reconsideration of design concepts." USGS SP 5.* This view is in accord with that taken by the NRC in its draft technical criteria for regulating disposal, that building a repository "is a new human enterprise," and it is therefore "reasonable to expect that, whatever the care exercised and however advanced the techniques, mistakes will occur, improved technologies developed, better designs created, and operational procedures improved." 45 Fed. Reg. 31398, col. 2 (May 13, 1980). (* "SP" refers to the participants' Statements of Position and "CS" references the Cross-Statements of Position.)

do so, or even uncover new uncertainties or problems making the task still more difficult to achieve. Confidence cannot be predicated on hope or blind technological optimism. Until the research has been completed and has successfully resolved all the technical difficulties, it is premature even to talk about confidence.

III. THERE IS NO FACTUAL BASIS TODAY FOR CONFIDENCE THAT TECHNICAL BARRIERS TO THE SAFE DISPOSAL OF WASTE WILL BE SUCCESSFULLY OVERCOME.

A. The scientific feasibility of isolating radioactive wastes from the biosphere for the extensive periods required to assure human safety has not been validated.

A key factor in the states' position that there is no present, reasonable assurance that technical barriers to safe waste disposal will be surmounted is the lack of scientific verification of the geologic repository concept. (CEC SP 6.) Actual assurance that geologic repositories can isolate radioactive wastes requires:

> "[C]omparing the results of field experiments to the model predictions and modifying the models. . . . The experiments must, of course, be carried out under conditions representative of those inside a loaded repository; that is, in-situ. It is only under these circumstances that the isolation hypothesis can be validated and reasonable assurance achieved." (CEC SP 7; see also NYAG SP 60; Wisconsin SP 8; Delaware SP 6.)

None of the waste experiments to date have utilized a vigorous scientific hypothesis testing and model verification method, and certainly no in-situ test experiments have been performed which demonstrate verification of the

geologic repository concept (CEC SP 12; Appendix C; see also Wisconsin SP 3-4).

DOE admits that in-situ testing is necessary to assure adequate site characterization and verification and to verify the models used for performance assessment. (DOE CS II-143.) However, in this area as in others, DOE looks to additional "planned in-situ tests to provide sufficient data" (DOE CS II-140). DOE thus admits that concept feasibility has not been proven,[3] and that its optimism that it will be shown is dependent upon successful completion of as-yet unperformed in-situ experiments.[4]

B. The numerous gaps in present technical knowledge concerning permanent waste disposal prevent a finding of confidence at this time.

Every filing in this proceeding identified many generic uncertainties and data gaps in the technology for waste

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3. The IRG report recognized that concept feasibility for geologic repositories is unproven:

> "The feasibility of safely disposing of high level waste in mined respositories can only be assessed on the basis of specific investigations at and determinations of suitability of particular sites." (Reference 13, CEC SP 8.)

4. DOE (and the industry) have adopted a systems approach to waste disposal--use of a series of natural and engineered barriers that supposedly provide a degree of isolation not possible for the natural systems alone. DOE fails to recognize that this approach is still hypothetical and needs to be scientifically verified with respect to the redundancy, effectiveness, and independence of a series of barriers that are still being conceptualized. (CEC SP 45.)

disposal. These gaps preclude assurance at this time that technical problems with waste disposal will be overcome. (NYAG SP 77-101; CEC SP 6-12; Appendices A, B and C; CDC SP 5-8; CDC CS 36-38.) It is impossible to even list all the existing data gaps in the limited space allowed for this summary. However, some of the most important data gaps and uncertainties are:

1. Waste-rock interactions--USGS has stated that "the uncertainties associated with hot wastes that interact chemically and mechanically with the rock and fluid system appear very high" (NYAG SP 79; CDC CS 3). DOE acknowledges that the effect of the heat emanating from the wastes on the surrounding rock of a repository is "a major unknown geologic factor (presenting) the most difficult engineering uncertainties." (NYAG SP 79.) One participant has described in detail the gaps in knowledge that prevent any understanding of the interaction of waste with host rock and the resulting lack of assurance that the physical, chemical, and thermal effects induced by the presence of the waste will not cause unmanageable disruptions. (NYAG SP 78-84.) It is simply not known if any site will be able to perform its function given the heat and radiation being emitted by the waste. (NYAG SP 78-84; see also CEC SP 10.)

2. Hydrology--DOE admits that "knowledge of groundwater hydrology, is perhaps, the most important requirement for understanding the long-term behavior of a mined geologic

repository." (DOE SP II-76.) Nevertheless, little is known about water transport of radionuclides to the biosphere (CDC SP 15-17; CDC CS 13-15, 18, 20-21; CEC SP 10, 50-55). As USGS has said:

> ". . . The need for such data severely taxes both the available data base and the technology for generating it. Most of the requisite data are presently unavailable; most of the available data have such large error limits that their usefulness in predictive models is limited." Circular 779, pp. 8-9.

3. Selection of geologic medium--While salt, shale, basalt, and granite are all under study as potential repository media, none have been shown to be technically capable of assuring safe isolation. Each medium under consideration is known to present serious, time-consuming, and possibly insurmountable problems which leaves the possibility of achievement within the requisite time frame speculative. (NYAG SP 84-92; CDC SP 9-10, 24-15; CDC CS 3, 6, 33-36; see also Delaware SP 5.)

4. Future climatic changes--It remains to be established that repositories can be located to withstand future climatic changes such as re-glaciation or significant increases in precipitation or surface erosion. (NYAG SP 47; CDC SP 12-13; CDC CS 10-12.)

5. Shaft sealing and borehole plugging--There is no established way to seal a repository so as to prevent radionuclide release to the biosphere for the necessary

period of time. (CEC SP 10; NYAG SP 99; CDC SP 19-23; CDC CS 25-29.) DOE has termed the sealing problem a "key unknown" (NYAG SP 99) but there is no consensus that the technology which is currently anticipated will provide adequate seals for even a few decades. (Id. 99.)

6. Monitoring--While DOE believes that a monitoring system should be developed to operate for a few centuries (NYAG SP 100), DOE's filings ignore the lack of equipment and methodology for monitoring the repository after closure. (Id.; DOE SP II-280; CDC SP 18-19; CDC CS 23-27.)

Given its lack of present knowledge,[5] DOE basically contends that the mere existence of its waste program is grounds for assurance. DOE resorts to speculation that it will successfully overcome all of these technical barriers in the near future, despite the lack of scientific knowledge after 25 years of study. (DOE SP I-5; CEC SP 10-11, 46.) Such statements do not disguise that these are important, existing data gaps, and that there is no assurance at this time that these gaps will be successfully filled in the future. (CEC SP 46.) DOE's abolishment makes its representations regarding the future success of its waste program even emptier.

5. Other identified knowledge gaps include cannister degredation (CEC SP 50), waste form dissolution (CEC SP 52), reaction in the overpack region (CEC SP 53), rock mechanics (CEC SP 54), retrievability (CDC SP 23-24; CDC CS 30-32), seismic and tectonic activity. (NYAG SP 46; CEC SP 10), and waste packaging (Illinois SP 30.)

C. Necessary mathematical modeling of repository performance is undeveloped.

Because geologic and other scientific data are unavailable, DOE wants to use computer modeling to demonstrate the validity of the geologic waste concept and wants to have the Commission find confidence based on these models and on results of future modeling studies. There is no clear indication of whether modeling will be successful or whether it can be succesfully achieved during the necessary time frame. (CDC SP 4.) And, there is no valid basis for assigning numbers to represent the probability of an earthquake, human intrusion, re-glaciation or other repository failure many years in the future. USGS, in its Preliminary Statement of April 15, 1980 (pp. 11-12), rejected reliance on models, and insisted on hard data from site-specific investigations. The models are not based on detailed site-specific information, and therefore, are not subject to verification. (CDC SP 20.) In any event, DOE concedes that even the models already cited will not be available for a number of years. (DOE SP II-203, 219, 222.) Simply having an extensive program for improvement of models is not evidence of confidence now that the far-field predictions will be more accurate. (CDC SP 20.)

D. There is no basis for confidence that sufficient sites will be found.

DOE says that as many as eight repositories would be needed if salt or shale is used as the medium. (DOE SP

II-289.) If ultimately eight sites are needed, dozens of sites meeting all the technical criteria must be located so that in-situ testing can begin. Such testing will likely discover problems with at least some of the sites. For example, the Salt Vault site in Lyons, Kansas was abandoned after a decade of testing, when it was finally found to be unsuitable. (NYAG SP 61.) Also, extra repository sites are needed in case of a need to quickly transfer the nuclear waste from an existing repository which has proven unsatisfactory.

There is simply no basis for confidence that dozens of sites meeting all the technical criteria will be found. The vague assumptions that the expanded National Waste Terminal Storage Program, because it includes a larger area for consideration, provides the confidence necessary to believe that the timetable will be met, is unacceptable. The site selection process has not even been properly started yet, and therefore, cannot possibly demonstrate confidence now that a repository will be available by 1997-2006. (CDC CS 33-36.) Indeed, DOE and USGS acknowledge that unknown deficiencies may exist in many of the regions under consideration and that knowledge about all the regions is insufficient to project the location of multiple suitable sites. (NYAG SP 65-67; NYAG CS 42-45.)[6]

6. Moreover, even if dozens of sites are found initially, many of them may be rendered unsuitable during in situ testing, because non-destructive testing methods have

Footnote continued on next page

E. DOE has not shown, and does not even claim, that disposal will be safe for the necessary period.

Nuclear waste, as DOE admits, must be isolated for up to one million years. (NYAG SP 30.) However, DOE's filing predicts isolation for only 10,000 years, only 1 percent of the time for which isolation is needed for safety, by DOE's own admission. (NYAG SP 30.) Industry argues that nuclear waste will be truly hazardous for a mere few hundred years, ignoring that some elements have half lives of hundreds of thousands of years. In fact, a chart submitted by the utilities shows that spent fuel will be more toxic than uranium ore for about 40,000 years. (Doc. 3, p. 2-8 of UNWMG-EI SP.) Another source cited by industry says that some of the waste products remain hazardous for millions of years. (NYAG CS 10-11.) DOE has failed to provide any assurance that its program will provide protection for that period of time and, in fact, admits that it has no plans to ensure such isolation. (See also CDC SP 5-6.)

F. Environmental, site selection, and performance criteria for a repository are speculative as is a demonstration that the criteria can be met.

Several participants have pointed out that establishment of environmental, site selection, and performance

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not been demonstrated. (NYAG SP 63-64.) And, sites surviving that hurdle may be breached during excavation, because there too non-destructive technology has not been developed. (NYAG SP 96.) Therefore, sites which are otherwise safe may be rendered unsuitable before a repository can be established.

criteria for a repository and demonstration that these criteria will be satisfied, are necessary for a reasonable assurance that safe waste disposal will be available. (Minn. SP 4; CDC SP 6; Illinois SP 2.) EPA has not yet published even its proposed environmental criteria for disposal of high-level wastes. (Id.) NRC has admitted that there is insufficient earth science knowledge to set forth general site acceptability criteria, and that therefore it may be necessary to determine suitability on an ad hoc basis for each tentative site. (Minn. SP 5.) While NRC has proposed technical criteria (46 Fed. Reg. 35280-96, July 8, 1981), the criteria are not yet final. The absence of final regulations and sites to compare them with precludes confidence at this time. NRC is also responsible for issuing performance standards. While the NRC has identified preliminary technical performance criteria (Minn. SP 6), DOE's filings ignore these requirements and provide no assurance that they will be met. (Minn. SP 7-11.)

IV. INSTITUTIONAL BARRIERS PREVENT A FINDING OF CONFIDENCE THAT THERE WILL BE WASTE DISPOSAL.

A. Unresolved institutional issues are as great a hindrance to a finding of confidence as technical obstacles.

There is no basis for confidence that institutional problems can be resolved. (NYAG SP 68-75; Ohio SP 15; Wisconsin SP 2; Minn. SP 5, and Dr. Abrahamson's comments 23-30.) The IRG report concluded that the resolution of social, political, and institutional concerns is necessary

to permit the orderly implementation of a nuclear waste program and that "resolution of institutional issues may well be more difficult than finding solutions to remaining technical problems." (IRG, p. 87; NYAG SP 68-69.) DOE has acknowledged that "less confidence can be placed in assessment of [institutional] impacts on the repository program" than technical issues (DOE SP III-87) and that it is "possible that unanticipated or unresolved issues of concern at the State or local level could cause prolonged perturbations in the schedule." (DOE SP III-31.) The states' submittals (and indeed, almost all non-industry and non-federal government filings) have pointed out that DOE's blithe conclusion that institutional concerns can be resolved ignores reality and presents no factual basis for confidence that they <u>will</u> be resolved.[7]

B. Institutional problems at the federal level are a significant obstacle precluding a finding of confidence.

The federal government's own handling of the waste disposal problem precludes finding assurance that waste disposal will be available. DOE, the lead federal agency

7. Virtually all the institutional factors cited by the states in their filings as precluding confidence that there will be safe storage of waste remain. President Reagan's support for reprocessing shows that, once again, a change in administrations has caused a change in the basic objectives of the nation's waste disposal program. Bitter struggles continue over the form and goals of waste disposal legislation, particularly with regard to state government and local participation in the program.

responsible for the waste disposal program, suffers from disjointed project management. (CEC SP 19-20.) DOE has failed to maintain a consistent program and objectives, due at least in part to the fact that the program is amenable to drastic change with each successive administration and that Congress has yet to take action to provide stability to the program. (Ohio SP 5-11.) The overall federal government management structure is inadequate (Wisconsin SP 4), characterized by a disorganized proliferation of decision-makers (at least six other agencies in the Executive Branch alone compete with DOE for jurisdiction over waste disposal) (CEC SP 20); disagreement among these decision-makers (CEC SP 21-22); and inefficient coordination of the decision-makers' activities. (Ohio SP 10; CEC SP 20.)[8]

In addition, there is the continuing institutional uncertainty in presidential input, as illustrated by the succession of presidents with differing waste management policies. (Ohio SP 6.) Congress, through its budgetary and statutory authority, is obviously also essential to timely implementation of an effective waste disposal solution. Jurisdiction in Congress over waste is split among numerous committees (Wisconsin SP 5) and no bill establishing a national program has passed. (Ohio SP 8-9.) Most importantly, significant changes in congressional

8. Participants have also pointed to the repeated failure of the AEC, ERDA, and now EPA and DOE to meet their own timetables. (Ohio SP 10; Vermont SP 2.)

membership occur regularly, causing an ever-changing set of goals (and legislation). DOE filings ignore these political obstacles. (Ohio SP 9.)

C. State and local concerns over waste disposal and the federal government's consistent failure to deal with them prevent a finding of confidence.

As DOE itself acknowledges, the public is very concerned about the consequences of building repositories, and many state and local governments, through legislation[9] or otherwise, have expressed opposition to accepting repositories. Every government effort to date to select particular sites has been opposed. Since dozens of candidate sites must be selected for testing and evaluation, the acknowledged public opposition creates doubt that repositories actually will be established. (NYAG SP 69-75; CEC SP 26-28; Ohio SP 13; Minn. SP 5.)

DOE's response is that it will engage in consultation with affected state and local governments and that objections therefore will disappear. (DOE SP V-19.) This approach, however, is naive, because discussions are not likely to override strong local objections to the siting of a repository. (NYAG SP 74; Ohio SP 15-16; Minn. SP, Dr. Abrahamson's comments, p. 30.) Moreover, DOE has

9. By October 1979, some 19 states had enacted bans or moratoria on the siting of a nuclear waste repository. (CEC SP 26.) Almost 40 states have either considered or taken some action concerning nuclear waste disposal. (Ohio SP 13.)

consistently failed to adhere to its purported policy of "consultation and concurrence." DOE's promise in its filings to deal with states is suspect, given its failure to even inform Wisconsin of its disposal plans for that state during this proceeding. (Wisconsin Supplemental Statement, dated October 10, 1980.) As Wisconsin says, DOE deliberately concealed from the state a report showing that the state was the primary candidate for exploration of granite formations. (Id.)

On an equally fundamental level is DOE's pervasive inability to deal with the concept of public trust and participation. DOE (and the NRC Working Group) continues to view the public as a special interest group whose support is desirable but unnecessary. DOE has no meaningful internal mechanism for instilling public confidence and this limitation will most likely effectively frustrate site selection and development. (Vermont SP 3.) DOE fails even to acknowledge the existence of a credibility problem, let alone begin the arduous task of dealing with it. (CEC SP 30.) Instead, DOE simplistically argues that the public should just accept whatever risks DOE determines should be accepted from radioactive wastes. (DOE SP II-14; NYAG SP 73.) Such an approach clearly does not present a factual basis for concluding that institutional barriers will be overcome. (Minn. SP 5-6.)

V. THERE IS NO BASIS FOR CONFIDENCE THAT SAFE DISPOSAL WILL BE IMPLEMENTED BY A GIVEN DATE.

Even if it could be said with confidence that safe disposal will be achieved ultimately, there is no basis for confidence that it will be achieved by any given date. This is because there is no way of knowing when, if at all, the required number of repository sites meeting all the technical requirements will be found, verified through in-situ testing, and accepted by state and local governments. It also cannot be known when, if at all, ongoing research will furnish satisfactory answers with respect to the existing data gaps or known technical problems. DOE itself, in commenting on a report issued by the General Accounting Office in June 1979 on the need for spent fuel storage facilities, said that it was not then possible to develop specific time frames for the final disposal of spent fuel. (NYAG SP 36.) The American Nuclear Society says that the timing of waste disposal is a "political question" and that under certain political assumptions--such as "reductions in funding, and policy changes"--the date of implementation would be later than is projected by DOE in this proceeding. (ANS SP, p. 3 and fn.)

USGS also recognizes that no date can be estimated. In its Statement of Position, as in its Preliminary Statement of April 15, 1980, USGS points to all the research that must still be done in so many areas, and says it is "unable to estimate when [waste] disposal will be available" because

such prediction "will be imprecise and premature until many of the key issues identified in this Statement have been addressed." (USGS SP 4, 29.) "From a technical standpoint," adds USGS, estimating a date for waste disposal is impossible because "new and hitherto untried technology" will be needed, and initial failures are therefore likely. (Id. at 5.) "How much time should be allowed for such contingencies is not clear." (Id.) Estimating a date is also impossible, says USGS, because of institutional unknowns. (Id.)

VI. THERE IS NO BASIS FOR CONFIDENCE THAT NUCLEAR WASTE CAN BE SAFELY STORED FOR THE NECESSARY PERIOD.

Long-term storage, for the indefinite period until and if safe disposal becomes available, is no answer.[10] It could be decades, or even centuries or more, before safe disposal is achieved, and there is no basis for confidence that nuclear waste can be safely stored for that period of time. To the contrary, a report prepared for the Tennessee Valley Authority ("TVA") has said about techniques for storing spent fuel:

> "[S]ince operating experience for more than 20 years is not available, a very long passage of time (i.e., several decades or longer) also may make the fuel assemblies less reliable by weakening the cladding, which means that the current methods for storing these assemblies are interim measures."

10. Ohio has pointed out cost, safety, and institutional concerns raised by storage at AFR facilities. (Ohio SP III.)

(Appendix to the TVA SP 10.) Therefore, until it is known when disposal will be available it cannot be said that nuclear waste will be safely stored until that date.

While storage in this country has not so far resulted in any calamitous accident, NRC records demonstrate that there have been many mishaps already, some of which led to releases of radioactivity. These are discussed at NYAG SP 105-107 and demonstrate the frequency of mechanical failure and human error at storage facilities. On at least one occasion, storage of nuclear waste did result in a major release of radioactivity. An Oak Ridge study concluded that this occurred in the Soviet Union and required the removal of the population from an area of from 38 to 380 square miles. (Id. 107-108.) Therefore, the fact that no major accident has yet occurred in the United States is reason to be thankful, but not reason to be confident that storage will be safe for an indefinite period of time.

VIII. CONCLUSION

The Commission should rule that it does not have confidence at this time that nuclear waste will be safely disposed of by a specific date, and that it also does not have confidence that such waste will be safely stored until safely disposed of. Any other conclusion would be based on hope or speculation rather than fact, and would be unjustified, arbitrary and capricious.

Dated: December 18, 1981

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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USNRC

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IN THE MATTER OF	)	
	)	
PROPOSED RULEMAKING ON THE STORAGE AND DISPOSAL OF NUCLEAR WASTE	)	PR-50, 51 (44 FR 61372)
	)	
(Waste Confidence Rulemaking)	)	

PREHEARING STATEMENT OF THE UNITED STATES DEPARTMENT OF ENERGY

The United States Department of Energy (DOE or the Department) hereby responds to the Commission's Second Prehearing Memorandum and Order dated November 6, 1981. That Order provided that Participants in this rulemaking could file a brief written statement outlining the oral presentations they intend to make to the Commission at the hearing scheduled to be held on January 11, 1982. The Department's presentation will follow the outline below. Citations to source documents in the record are included. */

Outline of DOE's Oral Presentation

I. Introduction

A. The proceedings that have been conducted in this rulemaking since October 1979 have produced a comprehensive factual record more than sufficient

*/ Only documents submitted by DOE have been cited herein for reasons of brevity, even though documents submitted by other Participants in many cases support DOE's position.

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to serve as the basis for a finding of confidence and a final rule. See Comments of DOE on Report of NRC Staff Working Group (Mar. 5, 1981) at 7-12.

B. The record demonstrates that there exists an overall nuclear waste management program capable of handling, storing and disposing of spent nuclear fuel from commercial power reactors.

C. The DOE waste management program is being accelerated in accordance with the President's Nuclear Policy Statement of October 8, 1981 (Appendix I).

D. The record demonstrates that (1) spent nuclear fuel from licensed facilities ultimately can be disposed of safely off-site; (2) disposal facilities will be in operation between 1999 and 2006 or earlier; and (3) spent nuclear fuel from licensed facilities can be stored safely either on-site or off-site until disposed of ultimately.

E. This rulemaking has analyzed painstakingly and exhaustively the issue of the disposal and storage of high-level radioactive wastes with spent fuel taken directly from commercial power reactors as the representative waste form. Nothing has occurred since the issuance of the Presiding Officer's First Prehearing Order of February 1, 1980 to render inappropriate the Commission's consideration of this representative waste form. The purpose of this proceeding is to determine

whether there is at least one safe method of disposal or storage for high-level radioactive waste. The fact that this Administration supports reprocessing of spent fuel does not change the purpose. This is particularly true in light of the fact that the current DOE program for development of the technology, the DOE program for the identification and characterization of sites, and the DOE program for dealing with institutional concerns are not dependent on the waste form. In addition, the Department has shown that spent fuel and wastes from reprocessing may both be placed in the mined geologic repository described in the Statement of Position of DOE (Apr. 15, 1980) (DOE PS). See Response of DOE to Natural Resources Defense Council Motion for Judgment (Sept. 11, 1981) (DOE Response to NRDC Motion) at 1-8.

II. Technical Basis for Disposal.

A. DOE has presented the technical basis for disposal first, because the availability of disposal facilities sets requirements for spent fuel storage. See DOE PS at I-5.

B. Since the submission of the DOE PS and Cross-Statement of DOE (Sept. 5, 1980) (DOE CS), the Department has published a Record of Decision formally adopting a programmatic strategy emphasizing the disposal of commercially-generated radioactive wastes in mined geologic repositories. See 46 Fed. Reg. 26677 (May 14, 1981). See also Letter from DOE to Presiding

Officer (Nov. 28, 1980)(indicating that DOE's Final Environmental Impact Statement on Management of Commercially Generated Radioactive Waste, DOE/EIS-0046F (Oct. 1980) was being filed in this proceeding and served upon each Participant).

C. Disposal in mined geologic repositories can meet the goal of providing safe and effective isolation of radionuclides from the environment because:

1. The natural geologic system will prevent or mitigate disruption of containment or isolation by reasonably foreseeable natural events. See DOE PS at II-24 to II-25; II-46, II-225 to II-226.

2. Waste and ground water interactions will be kept at low rates. See DOE CS at II-94 to II-96, II-122 to II-126 (and DOE PS references therein).

3. The repository will be engineered to preserve and supplement the containment and isolation provided by natural systems. See DOE PS at II-3, II-127, II-160 to II-161, and II-187 to II-188; DOE CS at II-98 to II-100.

4. Waste packages will ensure containment during the period dominated by fission product decay. See DOE CS at II-93 to II-97 (and DOE PS references therein). See also DOE PS at II-9 to II-15; DOE CS at II-70 to II-76; and letter from DOE to Presiding Officer (Sept. 19, 1980) (concerning the

periods of time for which there should be reasonable assurance of waste containment and isolation).

5. The geohydrologic system will minimize radionuclide release, if containment loss occurs. See DOE PS at II-46; DOE CS at II-95.

6. Mined geologic disposal systems can be implemented with current or near-term technology. See DOE CS at II-76 to II-81 (and DOE PS references therein).

7. Human intrusion can be limited by appropriate siting and protective measures. See DOE CS at II-118 to II-122 (and DOE PS references therein).

D. DOE's repository site characterization and selection program will result in the identification of technically acceptable repository sites. See DOE PS at II-87 to II-128, III-15 to III-24; DOE CS at II-138 to II-140.

E. DOE's conservative, step-by-step approach and the ability to provide multiple barriers in a disposal system afford sufficient flexibility to accommodate any residual uncertainties. See DOE PS at II-22 to II-26, II-206 to II-207; DOE CS at II-98 to II-100.

F. Other Participants have not raised any new technical issues during this rulemaking. See DOE CS at III-11 to III-13. Each issue discussed either was addressed in DOE's original statement or is recognized by the program and being addressed by current research. Id. The Commission should dismiss as an issue the question of whether there now exists a sufficient scientific and technical basis for developing safe, environmentally

acceptable facilities for waste disposal. DOE has demonstrated that it has a program of research and development to address all uncertainties identified in the record. See DOE CS at III-11 to III-13.

III. DOE's Program for Establishing Mined Geologic Repositories.

A. DOE recognizes that the resolution of difficult "nontechnical" or "institutional" issues is essential to the success of its program. See DOE CS at II-1. Adequate activities are now under way to permit completion of the schedules described in DOE's previous submissions. See DOE PS, Figs. III-2 and III-3; DOE Response to NRDC Motion at 6-7.

B. Selection of candidate sites for repositories.

1. Site selection is based on a systematic process with involvement of state and local officials and the public. See DOE PS at III-8 to III-31; DOE CS at II-11 to II-22.

2. Regional characterizations are underway in three crystalline regions. Area characterizations have been completed and locations identified in dome salt, bedded salt, basalt flows, and volcanic tuff. See DOE PS at II-84 to II-128 and App. B; DOE CS at II-130 to II-140.

3. Significant progress has been made in the site exploration program since the submission of the DOE PS and DOE CS. As a result, the DOE program

now calls for initiating the construction during 1983 of exploratory shafts at three candidate repository sites.

C. The DOE approach includes consideration of regulatory factors, environmental factors, the necessity of involving the public, and the need to meet site qualification criteria. See DOE PS at II-3, III-31 to III-42; DOE CS at II-31 to II-44.

D. DOE's program and schedules are sufficiently broad-based and conservative to encompass evolving criteria and contingencies. See DOE PS at III-36 to III-68; DOE CS at II-45 to II-52.

E. Intergovernmental mechanisms now are sufficient to facilitate ongoing investigative work. See DOE PS at III-42 to III-48; DOE CS at II-6 to II-16.

F. Since the submission of the DOE PS and DOE CS, the Department has indicated that it plans to construct a test and evaluation (T&E) facility beginning in 1986. This T&E facility, which could be in operation as early as 1989, will be used to gain experience in handling and emplacement of waste. This generic information will be applicable for any one of the three sites chosen for the first full-scale, licensed repository. Construction of the T&E facility will not delay the availability of the licensed repository. A licensed repository will be available within the range of time

set forth in DOE's previous submissions in this rulemaking.

G. DOE has a management organization sufficient to implement its waste management program. See DOE PS at III-2 to III-7; DOE CS at II-22 to II-31. The ability of the Federal Government to implement the waste isolation program would not be effected by the President's September 24, 1981 proposal to dismantle DOE. As demonstrated by his Nuclear Policy Statement of October 8, 1981 (Appendix I), the President is committed to the swift deployment of means of storing and disposing of commercial high-level nuclear waste. Thus, some governmental unit will continue the program aggressively if DOE is dismantled.

IV. Technical Basis for Storage.

A. Safe and environmentally acceptable storage of spent fuel has been demonstrated. The extensive prior storage experience, monitoring programs to confirm the continuing integrity of fuel in storage, and the development and availability of additional storage options, demonstrate that interim storage can be provided for as long as may be necessary. See DOE PS, Part IV; DOE CS at II-144 to II-158. Water pool storage has been licensed by the Commission for over 20 years.

B. The technology of water pool storage of spent fuel is based on more than 30 years experience. See DOE PS at IV-9 to IV-11.

C. The regulatory framework, industry standards, and design requirements for water pool storage exists. See DOE PS at IV-2 to IV-4, IV-23 to IV-25.

D. Zircaloy-clad spent fuel has been stored underwater for 20 years and stainless steel-clad for 12 years with no evidence of degradation. Corrosion studies suggest storage could continue for 50 years or longer. See DOE PS at IV-40 to IV-72; DOE CS at II-151 to II-154.

E. Dry storage of spent fuel is a viable alternative to water pool storage. See DOE PS at IV-12 to IV-19 and IV-63.

V. Program for Providing Storage Facilities.

A. Storage of commercial spent fuel is primarily the responsibility of the electric utilities, but there was previously a proposal for a limited amount of government storage capacity as an alternative to those utilities unable to expand their storage capabilities. See DOE PS at I-11 and V-1. In the Spring of 1981, DOE informed the Commission that DOE had decided to discontinue efforts to provide Federal government-owned or -controlled away-from-reactor (AFR) storage facilities. Letter from DOE to Presiding Officer (Mar. 27, 1981). This decision followed a change in DOE's projections of the quantity of spent fuel that may require interim storage prior to the availability of a disposal facility. Id.

B. DOE is redirecting its efforts to concentrate on the development of alternative technology to further increase utility storage capabilities. Id.

C. DOE has shown that projected requirements for additional storage capacity now begin in 1986, instead of 1981. Cf. Letter from DOE to Presiding Officer (Mar. 27, 1981), Table 1; and DOE PS, Tables V-1 and V-3.

D. The changes in projected spent fuel storage requirements make more feasible various actions that utilities can take to meet storage needs prior to the availability of a disposal facility. DOE has indicated that the Commission should find that any additional storage requirements will be satisfied in any one or more of the following ways:

1. The use of private existing AFR facilities.
2. The construction of new water basins, either at reactors or away from reactors by private industry or the utilities.
3. The transshipment of spent fuel between reactors of different utilities.
4. The disassembly of spent fuel assemblies and the storage of spent fuel rods in canisters.
5. The use of dry storage at the reactor sites.

See Letter from DOE to Presiding Officer (Mar. 27, 1981) at 3-4.

VI. Integrated Operation of the Storage and Disposal Systems.

DOE's previous submissions considered the integration of the mined geologic repository and storage programs. See DOE PS at VI-1 to VI-6; DOE CS at II-170 to II-172; Letter from DOE to Presiding Officer (Mar. 27, 1981) at 3. While studies to optimize the integration of the system of federal disposal and utility storage have not been completed, a sample spent-fuel management scenario was analyzed. Variables considered included the capacity, receiving capability, and date of availability of geologic disposal facilities, storage availability and required capacity, and the transportation logistics for moving spent fuel. The combined system of disposal and storage will provide great flexibility to meet the need to balance technical conservatism, regional needs, and reactor requirements.

VII. Conclusions and Recommendations.

A. Based upon the comprehensive record of this rulemaking, the Commission (as DOE has urged previously, DOE PS at VII-1; DOE CS at III-16) must find that it has confidence that:

1. Spent nuclear fuel from licensed facilities can be disposed of in a safe and environmentally acceptable manner.

2. The Federal Government's plans for establishing geologic repositories are an

effective and reasonable means for developing a safe and environmentally acceptable disposal system.

3. Spent nuclear fuel from licensed facilities can be stored in a safe and environmentally acceptable manner on-site or off-site until disposal facilities are available.

4. Sufficient additional storage capacity for spent nuclear fuel from licensed facilities will be established.

5. The disposal and interim storage systems for spent nuclear fuel from licensed facilities will be integrated into an acceptable operating system.

B. The Report of the NRC Staff Working Group (Jan. 29, 1981) at 7 states, "... an NRC confidence finding would be largely an expression of confidence that the DOE ongoing waste research and development program will produce the anticipated results in the years ahead." This statement is correct. The Department has stated that it does not attempt to prove that safe disposal of radioactive wastes, with the required approval of appropriate regulatory authorities, can be achieved today. See DOE PS at I-5; Comments of DOE on Report of NRC Staff Working Group (Mar. 5, 1981) at 5. Rather, the Department has shown that such disposal can be achieved within specified reasonable times upon com-

pletion of its current research and development and site exploration programs. The Department continues to submit that agreement by the Commission that such disposal can be achieved within these times would lead to a finding of confidence.

C. Having made these findings, the Commission (as DOE has urged previously, DOE PS at VII-1; DOE CS at III-17 to III-19) should promulgate a rule providing that the safety and environmental implications of spent nuclear fuel remaining on site after the anticipated expiration of the facility licenses involved need not be considered in individual facility licensing proceedings.

* * *

Designation of Spokesperson

The Department will be represented at the hearing by the undersigned attorney, Omer F. Brown, II. Additionally, other representatives of the Department will make supporting statements and a limited number of technical experts will be available to answer questions.

* * *

Respectfully submitted,

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Dated: December 21, 1981

APPENDIX I

OCT 8 1981

THE WHITE HOUSE

Office of the Press Secretary

For Immediate Release

STATEMENT BY THE PRESIDENT

A more abundant, affordable, and secure energy future for all Americans is a critical element of this Administration's economic recovery program. While homeowners and business firms have shown remarkable ingenuity and resourcefulness in meeting their energy needs at lower cost through conservation, it is evident that sustained economic growth over the decades ahead will require additional energy supplies. This is particularly true of electricity, which will supply an increasing share of our energy.

If we are to meet this need for new energy supplies, we must move rapidly to eliminate unnecessary government barriers to efficient utilization of our abundant, economical resources of coal and uranium. It is equally vital that the utilities -- investor-owned, public, and co-ops -- be able to develop new generating capacity that will permit them to supply their customers at the lowest cost, be it coal, nuclear, hydro, or new technologies such as fuel cells.

One of the best potential sources of new electrical energy supplies in the coming decades is nuclear power. The U.S. has developed a strong technological base in the production of electricity from nuclear energy. Unfortunately, the Federal Government has created a regulatory environment that is forcing many utilities to rule out nuclear power as a source of new generating capacity, even when their consumers may face unnecessarily high electric rates as a result. Nuclear power has become entangled in a morass of regulations that do not enhance safety but that do cause extensive licensing delays and economic uncertainty. Government has also failed in meeting its responsibility to work with industry to develop an acceptable system for commercial waste disposal, which has further hampered nuclear power development.

To correct present government deficiencies and to enable nuclear power to make its essential contribution to our future energy needs, I am announcing today a series of policy initiatives:

(1). I am directing the Secretary of Energy to give immediate priority attention to recommending improvements in the nuclear regulatory and licensing process. I anticipate that the Chairman of the Nuclear Regulatory Commission will take steps to facilitate the licensing of plants under construction and those awaiting licenses. Consistent with public health and safety, we must remove unnecessary obstacles to deployment of the current generation of nuclear power reactors. The time involved to proceed from the planning stage to an operating license for new nuclear power plants has more than doubled since the mid-1970s and is presently some 10-14 years. This process must be streamlined, with the objective of shortening the time involved to 6-8 years, as is typical in some other countries.

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(2) I am directing that government agencies proceed with the demonstration of breeder reactor technology, including completion of the Clinch River Breeder Reactor. This is esser to ensure our preparedness for longer-term nuclear power needs

(3) I am lifting the indefinite ban which previous Administrations placed on commercial reprocessing activities in the United States. In addition, we will pursue consistent, long-term policies concerning reprocessing of spent fuel from nuclear power reactors and eliminate regulatory impediments to commercial interest in this technology, while ensuring adequate safeguards.

It is important that the private sector take the lead in developing commercial reprocessing services. Thus I am also requesting the Director of the Office of Science and Technology Policy, working with the Secretary of Energy, to undertake a study of the feasibility of obtaining economical plutonium supplies for the Department of Energy by means of a competitive procurement. By encouraging private firms to supply fuel for the breeder program at a cost that does not exceed that of government-produced plutonium, we may be able to provide a stable market for private sector reprocessing, and simultaneously reduce the funding needs of the U.S. breeder demonstration program.

(4) I am instructing 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. We must take steps now to accomplis this objective and demonstrate to the public that problems associated with management of nuclear waste can be resolved.

(5) I recognize that some of the problems besetting the nuclear option are of a deep-seated nature and may not be quickly resolved. Therefore, I am directing the Secretary of Energy and the Director of the Office of Science and Technology Policy to meet with representatives from the universities, private industry and the utilities and requesting them to report to me on the obstacles which stand in the way of increased use of nuclear energy and the steps needed to overcome them in order to assure the continued availability of nuclear power to meet America's future energy needs not later than September 30, 1982.

Eliminating the regulatory problems that have burdened nuclear power will be of little use if the utility sector cannot raise the capital necessary to fund construction of new generating facilities. We have already taken significant steps to improve the climate for capital formation with the passage of my program for economic recovery. The tax bill contains substantial incentives designed to attract new capital into industry.

Safe, commercial nuclear power can help meet America's future energy needs. The policies and actions that I am announcing today will permit a revitalization of the U.S. industry's efforts to develop nuclear power. In this way, native American genius -- not arbitrary federal policy -- will be free to provide for our energy future.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

IN THE MATTER OF PROPOSED RULEMAKING ON THE STORAGE AND DISPOSAL OF NUCLEAR WASTE (Waste Confidence Rulemaking)	)	PR-50, 51 (44 FR 61372)

CERTIFICATE OF SERVICE

I hereby certify that I have served one copy (unless otherwise noted) of the foregoing documents, entitled "Prehearing Statement of the United States Department of Energy" and "Letter from Office of Science and Technology Policy to Secretary of the Commission", by mail, upon the following this 21st day of December 1981:

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EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF SCIENCE AND TECHNOLOGY POLICY
WASHINGTON, D.C. 20500

December 18, 1981

Mr. Samuel J. Chilk
Secretary of the Commission
U.S. Nuclear Regulatory Commission
1717 H Street, N.W.
Washington, D. C. 20555

Re: Proposed Rulemaking on the Storage and Disposal of Nuclear Waste (Waste Confidence Rulemaking), NRC Docket No. PR-50, 51 (44 F.R. 61372)

Dear Mr. Chilk:

The subject of this rulemaking proceeding, storage and disposal of nuclear waste, is a high priority of this Administration. In our view, the technical problems associated with safe storage and disposal of nuclear waste have been solved. In his Nuclear Policy Statement of October 8, 1981, the President instructed the Secretary of Energy to proceed swiftly toward deployment of means of storing and disposing of commercial high-level radioactive waste. The Administration is taking steps now to accomplish this objective and to demonstrate to the public that problems associated with management of nuclear waste can be resolved.

On November 6, 1981, a Second Prehearing Memorandum and Order was issued in the above-entitled rulemaking. That Order provided that the Arms Control and Disarmament Agency, the Council on Environmental Quality, the Office of Science and Technology Policy, and the United States Geological Survey (USGS) would be consolidated for the purpose of making a presentation at the hearing scheduled to be held on January 11, 1981.

As the lead federal agency for the management of high-level nuclear waste, the Department of Energy (DOE) will make the principal presentation for the Federal government at the oral hearing. DOE's presentation is outlined in its Prehearing Statement. Other federal agencies will not make a formal presentation. Because the Commission's Order said that the Commissioners have reserved the right to ask technical as well as more general questions, representatives of the USGS will accompany DOE at the hearing for the purpose of answering questions concerning earth science issues.

Sincerely,

John M. Marcum
Assistant Director
Energy and Natural
Resources

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cc: Service List