



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS  
WASHINGTON, D. C. 20555

August 13, 1984

Mr. William J. Dircks  
Executive Director for Operations  
U. S. Nuclear Regulatory Commission  
Washington, DC 20555

Dear Mr. Dircks:

SUBJECT: COMMENTS ON DRAFT DOE MISSION PLAN FOR THE CIVILIAN RADIO-  
ACTIVE WASTE MANAGEMENT PROGRAM

On August 7, 1984 the ACRS Subcommittee on Waste Management discussed with the NRC Staff and representatives of the U.S. Department of Energy (DOE) the draft DOE Mission Plan for the Civilian Radioactive Waste Management Program.

On the basis of these discussions, the Subcommittee has summarized its comments and a copy is enclosed for your information. These comments were discussed by the ACRS during its 292nd meeting, August 9-11, 1984, and the Committee agreed to forward them to you. We trust these comments will be helpful to the NRC and DOE Staffs.

Sincerely,

Jesse C. Ebersole  
Chairman

Enclosure:

"Comments on the U.S. Department of Energy's Mission Plan for the Civilian Radioactive Waste Management Program draft dated April 1984," Prepared by the ACRS Subcommittee on Waste Management, August 8, 1984

References:

1. U.S. Department of Energy Report, DOE/RW-0005 Draft, "Mission Plan for the Civilian Radioactive Waste Management Program," Volumes I and II, dated April 1984

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Discussed w/ Dan Marshall - ACRS  
for release to PDR - OK

Mr. William J. Dircks

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2. Letter dated July 31, 1984 from Nunzio J. Palladino, Chairman, NRC, to Ben C. Rusche, Director, Office of Civilian Radioactive Waste Management, U.S. Department of Energy, transmitting NRC Comments on the draft Mission Plan

cc: Chairman Palladino  
Commissioner Roberts  
Commissioner Asselstine  
Commissioner Bernthal  
Commissioner Zech  
R. Browning, WM  
B. C. Rusche, DOE  
W. Bennett, DOE

**Comments on the U.S. Department of Energy's  
Mission Plan for the  
Civilian Radioactive Waste Management Program  
Draft dated April 1984**

**Prepared by the  
Subcommittee on Waste Management  
Advisory Committee on Reactor Safeguards  
August 8, 1984**

During its meeting on August 7, 1984, the ACRS Subcommittee on Waste Management discussed with the NRC Staff and representatives of the U.S. Department of Energy (DOE) the DOE draft Mission Plan for the Civilian Radioactive Waste Management Program. On the basis of these discussions, the Subcommittee offers the following comments:

1. We agree with DOE that the Mission Plan is subject to revisions as milestones and applicable regulations change, as data accumulate, and as interactions with other agencies accelerate or delay the progress of the program.
2. Although we are pleased to note the increase in emphasis being given by DOE to the integration of the various operations within the high-level waste management program, we believe it is important that this effort include a thorough consideration of all components of this program and their interrelated effects. Important to such a consideration is the number of times spent fuel must be handled, transferred, transported, and manipulated if the proposed schedules for at-reactor storage, monitored retrievable storage, and final repository disposal are to be met. Consideration needs also to be directed to the accompanying risks and the associated occupational and public collective doses. Such considerations should be used as a guide in the formulation of the detailed program. The Mission Plan should include explicit recognition of the importance of such analyses to the waste management program.
3. The Mission Plan is already behind the schedule mandated by the Nuclear Waste Policy Act of 1982. We urge that DOE explore methods for expediting the program.
4. The NRC Staff and this Subcommittee have previously emphasized the need for a quality assurance program to support the data development and collection phases of the Mission Plan. We now have informal confirmation that such a program is being developed. We urge that its completion be expedited and that the Mission Plan include suitable text that recognizes the importance of such activities to the high-level waste management program. Otherwise, unnecessary delays will occur as inadequately supported or confirmed data are challenged within the licensing process.
5. There is a need to develop a procedure for terminating data collection when adequate information for decisions on a given point

has been gathered. There is neither adequate time nor money to satisfy every possible question that can be raised. The Mission Plan should state that management decisions of this type can and will be made.

6. The Mission Plan should identify proposed DOE activities to develop and verify models for predicting the behavior of radionuclides within a repository. The multitude of models must be reduced to those that can be validated experimentally.
7. The media being considered for the first two repositories do not include argillaceous materials (e.g., clay). Because of their potential advantages, we urge that DOE be certain that their exclusion is warranted.
8. The draft Mission Plan addresses the development of a repository up to the time it is ready to receive high-level wastes. We recommend that specific consideration also be given in the Mission Plan to the operation and ultimate sealing and decommissioning of the repository.
9. Because of the importance of frequent and full exchanges of information between DOE and NRC, we believe the Mission Plan should include a formal mechanism or procedure for such interchanges and other interactive coordination. It is also important that attention be given in the Mission Plan to the manner in which DOE plans to coordinate this program with other federal and state agencies. Such coordination should include how relations with these other groups will be established and maintained.
10. A key factor in the success of the Mission Plan will be the manner in which the public responds. We recommend that DOE incorporate a positive program of public information and education as a formal part of the Mission Plan.

Although the following comments do not apply directly to the Mission Plan, they do bear upon the high-level radioactive waste management program:

11. DOE should prepare, as rapidly as possible, a critical path management plan to meet the milestones of the Mission Plan. This plan must be based on the lead times available to assemble the information necessary for preparation of the environmental assessments, the site characterization plans, the repository design, etc. Such a plan should include consideration of the schedules on which technical information must be made available, the time required to obtain the information and to prepare related documents, the time allotted for comment and revision, and other issues such as the allocation of resources and the establishment of priorities.
12. Data and information being developed in conjunction with the Waste Isolation Pilot Plant (WIPP) site in New Mexico could potentially be beneficial to DOE in the development of a repository for commercial wastes. We urge that the DOE staff take maximum advantage of

the associated data and experience. Consideration might be given to the location of a repository near the WIPP site for commercial waste, particularly if it would expedite the licensing process.

13. Because the definition of what constitutes a new or separate site is not clear, a proposed location in the same geologic medium a modest distance from a rejected site can be considered new. Due to the potential confusion this matter may cause, we believe it should be clarified.