



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

OFFICE OF THE
CHAIRMAN

September 25, 1978

*hearing
Administration
Waste Management
Environment*

The Honorable John Glenn, Chairman
Subcommittee on Energy, Nuclear
Proliferation and Federal Services
Committee on Governmental Affairs
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

Enclosed are responses to the questions contained in your letter
of August 18, 1978. Please let me know if we can provide
additional information.

Sincerely,

Joseph M. Hendrie
Joseph M. Hendrie
Chairman

Enclosure:
Responses to Questions

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1. Question: At page 18 of your statement (long version) you state it would be beneficial to separate federal nuclear waste management functions from related research and development functions in different agencies. What are the reasons for this view? Is it shared unanimously by all NRC Commissioners". How might the separation you propose be accomplished without the creation of a new agency?

Answer: The separation of research and development from operation of waste facilities was cited on p. 18 as being "noteworthy," not "beneficial." One can argue whether any benefits from the separation would outweigh the disadvantages. My view is that separation at this time would not be desirable, since it would cause a major disruption in a program that already has ample burdens, and would artificially separate the technical expertise of the research and development people from the facility operators.

However, as I indicated in my testimony, I do not support the legislation proposed by Senator Mathias in its present form. The reason for this view is that the potential long-range benefit from the creation of a new agency as proposed by Senator Mathias would, in the short run, be cancelled out by the delays and confusion that would result from the establishment of such a new agency.

This view is not shared by all the Commissioners. Commissioner Gilinsky is generally in favor of Senator Mathias' proposal to establish an independent entity whose sole responsibility is to manage nuclear wastes. He believes that the existence of such an institution would contribute to the long-term safe management of such wastes. He does not believe that a decision to form such an entity and to transfer waste management responsibilities to it in the future need hold up current decisions under current authority.

With respect to your question of how separation might be accomplished without the creation of a new agency, it should be possible to separate these functions into offices still within the DOE. However, because waste management technology is still in the developmental phase, it would be most difficult at this time to separate the operational functions from the research and development functions. Let me note, however, that this question involves a matter of DOE organization and responsibility which has not been addressed by the Commission.

2. Question: It has been suggested that NRC's overall regulations pertaining to nuclear waste disposal will be very general and that important decisions will be made on an ad hoc basis through regulatory guides after the fact. What steps has NRC taken to insure that all major decisions concerning the safety of nuclear waste repositories will be made through a public process as part of NRC's regulation-setting activities?

Answer: The NRC intends to reach all major decisions concerning the safety of nuclear waste repositories through a process which will involve public participation.

With respect to the development of new regulations applicable to nuclear waste repositories we intend to solicit the views and ideas of the various interested States prior to preparing drafts of regulations. For example, we held three regional State Workshops in September 1977 on general repository siting and licensing issues as we were developing the scope of our regulations. After the development of draft regulations we anticipate seeking further inputs from interested States and members of the public. Thereafter, we would publish proposed regulations for general public comment. In connection with this later step, we may schedule public rulemaking hearings with respect to the more significant of these proposed regulations. Only after this extended process and after taking into account public comments would a regulation become effective.

During the course of the development of the regulatory program for nuclear waste disposal facilities we will be developing guides to provide guidance to applicants for nuclear waste disposal facility licenses as to how to satisfy the requirements of the applicable regulations. Although such guides are advisory in effect and do not have the force and effect of regulations they are useful in providing information to applicants for licenses on the operation of the licensing process. We anticipate providing opportunities for public participation in the development of these guides.

With regard to licensing specific proposed facilities, although the Commission has not yet decided upon the licensing procedures to be used, a formal public hearing process is usually a standard part of the license review for major facilities and I expect that licensing hearings will be part of the repository licensing procedures. In addition, the staff is developing procedures to facilitate state participation in the staff licensing review. These procedures would encourage state input into the staff's thinking before any tentative conclusions are reached and would be in addition to opportunities for formal intervention.

3. Question: How will the requirements of NEPA for the preparation of an environmental impact statement be satisfied in cases in which NRC will license DOE nuclear waste repositories (demonstration and full scale)? Specifically, which agency will prepare the statement? How will conflicts be resolved if DOE's and NRC's cost-benefit analyses with respect to a given facility differ.

Answer: How the requirements of NEPA for the preparation of an environmental impact statement will be satisfied in cases where NRC will license DOE is a matter currently under discussion within the Commission. It appears likely that the NRC would need to prepare its own environmental impact statement as part of its licensing review. Differences in DOE and NRC cost-benefit analyses would then be adjudicated in the licensing hearings.

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4. Question: At page 146 of the hearing transcript you point out that NRC's waste management regulations "may limit the options available to the Department of Energy." In view of this, how far does NRC believe DOE should proceed in developing specific waste disposal options prior to the promulgation of NRC's regulations?

Answer: We do not foresee any specific regulatory decisions of a technical nature which will be made within the next few years which will limit DOE's technical options in designing a waste disposal system. Further, much of the technical information on which we will test the appropriateness of regulations will come from work of the DOE in investigating, designing and building waste facilities.

When establishing a regulatory process early in the developmental stage of a new technology there is always the risk that innovation will be discouraged. In order to minimize this risk NRC proposes to set performance standards for disposal of radioactive wastes and to allow the applicant maximum flexibility in designing to meet the performance objectives. We propose to provide guidance where guidance is needed and to impose fixed requirements only when necessary. We plan to keep the regulations general, for the most part, to provide flexibility in technologic approaches to conformance with the fixed performance objectives. As the technology development becomes more mature we propose to supplement our regulations with regulatory guides which will be more specific, and will describe methods acceptable to the NRC staff for implementing the regulations.

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5. Question: At page 148 of the hearing transcript, you stated that there "has been, and may in the future be, considerable duplication of effort between NRC and EPA." Please provide a detailed explanation of this statement and your suggestions as to how such duplication of effort could be avoided.

Answer: The duplication of effort between NRC and EPA arises because of the respective authorities of the two agencies and the provisions of the National Environmental Policy Act. EPA has authority in the area of waste management to (1) promulgate generally applicable ambient environmental radiation standards and with the President's approval, broad guidance to Federal agencies on radiation standards; (2) grant permits for ocean disposal of radioactive wastes; (3) regulate emission of radioactive effluents into the air; and (4) regulate hazardous wastes including radioactive wastes not covered by the Atomic Energy Act (i.e., uranium mill tailings). The NRC licenses and regulates nuclear facilities and defined classes of radioactive materials to protect the public health and safety and common defense and security and to preserve environmental quality. EPA standards and guidance referred to in (1) would be binding on NRC.

In spite of a memorandum of understanding of September 11, 1973 (38 Fed. Reg. 24936), there has been or may be considerable duplication of effort between NRC and EPA resulting from NRC's responsibilities to consider alternatives under NEPA (e.g., considering ocean disposal as an alternative to shallow land burial of low-level waste), consider all environmental impacts from licensed activities (e.g., the environmental impacts of mill tailings), consider all aspects of nuclear facilities including emissions into the air, and promulgate timely standards for waste facilities without the benefit of EPA environmental standards.

Duplication could be reduced by eliminating some of the overlapping authority. We believe that NRC should have authority over mill tailings and ocean disposal of radioactive wastes. We also believe that NRC and Agreement States should reassume what had generally been exclusive authority over emission of radioactive materials into the air. When "exclusive" authority for ocean disposal was given to EPA under the Marine Protection, Research and Sanctuaries Act, there was a compelling rationale for standards set independently of AEC because the AEC also had a promotional role. The creation of the NRC has obviated the rationale for disjointed Federal regulatory authority over waste disposal.

6. Question: Please explain the relationship between the standards and guidance concerning nuclear wastes to be established by EPA and the corresponding regulations to be issued by NRC, including the extent to which NRC's regulations are dependent upon EPA's determinations. Does NRC believe it can publish its regulations before EPA's determinations have been made and, if so, how great is the risk that such regulations would have to be substantially revised following EPA's action?

Answer: The answer to question 5 explains the relationship of EPA and NRC authority. While EPA has discussed some overall criteria for waste management, they have not as yet promulgated generally applicable environmental standards or Federal guidance for waste management. The NRC staff is developing a draft regulation for high-level waste management which will contain interim objectives for the radiological performance of a repository. These objectives will be revised, as necessary, following publication of EPA's standards for waste management. The NRC staff is currently studying the limitations which these interim objectives will impose on a waste management system, and, when these studies are complete, will incorporate the results into our draft regulation. Since we do not know what form EPA's standards will take, we are unable to predict which characteristics of a waste management system might be affected.

There is obviously some risk of having to revise substantially our draft regulations when EPA finally establishes the general standards for waste management. However, the NRC and EPA staffs have periodic managements to keep each group informed of the other's work and we hope to avoid any major missteps by this liaison.

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