

January 5, 1996

FOR: The Commissioners  
 FROM: James M. Taylor /s/  
 Executive Director for Operations  
 SUBJECT: STATUS OF NRC ASSISTANCE TO THE DEPARTMENT OF ENERGY ON REGULATORY PLANS FOR PLUTONIUM DISPOSITION ALTERNATIVES

## PURPOSE:

To inform the Commission of the status of Nuclear Regulatory Commission assistance to the Department of Energy (DOE **EXIT**) in its development of regulatory plans for plutonium disposition alternatives.

## BACKGROUND:

On April 25, 1995, DOE briefed the NRC staff on the Fissile Materials Disposition Program and its strategy for development of regulatory plans for plutonium disposition alternatives. The regulatory plans will assume, for planning purposes, NRC licensing of facilities associated with the alternatives. Thus, DOE requested NRC assistance in their development of these plans. A Commission paper, SECY-95-174, dated July 10, 1995, informed the Commission of DOE's request. In response, the Commission issued a Staff Requirements Memorandum on August 7, 1995, which directed the staff to establish a reimbursable agreement with DOE, to provide the assistance requested.

The reimbursable agreement was concluded with DOE on September 19, 1995. A copy of the agreement was provided to the Commission via a memorandum dated October 10, 1995. The agreement discusses support to be provided by NRC during the two stages of DOE development of the regulatory plans. That support was specified to consist primarily of NRC participation in meetings with DOE and review of the regulatory plans. The purpose of the meetings was to provide feedback on the potential regulations that would apply to the facilities needed for each alternative, as well as licensing issues and schedules associated with each alternative. DOE plans to use this feedback in the development of the regulatory plans for each alternative. The agreement also includes a provision for the use of task orders, with NRC approval, for unexpected tasks.

## SUMMARY OF STAGE ONE SUPPORT:

The series of public meetings with DOE was held between mid-September and mid-November 1995 on the following topics, and in the following order: borehole alternatives; storage alternatives; immobilization alternatives; repository impacts; mixed oxide (MOX) fuel issues; pit disassembly and materials conversion; and safeguards and security and transportation and packaging issues. As stipulated in the agreement, DOE developed a record for each meeting in coordination with DOE and NRC participants. The conference records for the first four meetings have been finalized and are provided as [Attachments 1-4](#), for your information. The remaining conference records will be forwarded when they are completed.

Public participation in the meetings was minor, except for the meeting regarding MOX fuel issues, which was well-attended by industry representatives. The finalized conference records are available to the public in the Public Document Room.

The series of meetings with DOE has been successful on several fronts. DOE has expressed appreciation for the information gained during the meetings and for NRC support ([Attachment 5](#)). DOE has noted that the following conclusions are significant:

1. NRC preference is for legislative clarification of NRC regulatory authority over most facilities and processes for which DOE may seek a license. (DOE is considering the need to initiate development of legislation soon.)
2. DOE's proposed licensing schedules for each alternative are considered realistic, assuming the submittal of thorough applications, adequate resources committed to licensing, and a minimum amount of intervention.
3. The basic regulatory framework is in place (or expected to be in place) for the type of facilities required by the alternatives, with the possible exception of borehole facilities.
4. NRC's expertise, though limited in plutonium handling per se, could be effectively applied to the regulation of the types of facilities contemplated for the disposition alternatives.
5. All the alternatives discussed are viable, at least in the context of NRC capability to license the involved facilities with a timeline to permit commencement of operations within 10 years, given appropriate legislative authority and budget authorization.

The staff managed to significantly reduce the resources utilized in the series of meetings from those originally estimated in SECY-95-174. This was accomplished through the use of meetings with DOE rather than review of draft regulatory plans and through strict limitation on NRC participation to only essential staff. As a result the resources utilized to date is roughly only half of the estimated 1.2 full-time equivalents for stage one.

## NEW DIRECTION FOR STAGE TWO OF NRC SUPPORT:

DOE has reassessed its need for NRC support during stage two of its development of regulatory plans for the disposition alternatives. It was contemplated, in the reimbursable agreement, that NRC would review the regulatory plans under this stage. However, through the series of meetings in stage one, DOE has determined that an NRC review of the plans will not be necessary at this time. DOE is considering, however, requesting further meetings to discuss specific issues such as proposed legislation to clarify regulatory authority and the licensing process, as well as the contents of a license application. Once DOE decides how to proceed with this additional dialog, it will request NRC support through formal task orders. A clause in the reimbursable agreement allows for the use of task orders, with NRC approval, for such additional meetings and activities. This support will not exceed the resources currently allocated to this project. DOE recognizes NRC's need for advance planning in providing the second stage of support and it has indicated that it will make its requests with sufficient advance notice.

## CONCLUSION:

The staff will continue to keep the Commission informed of NRC's continuing support to DOE and further developments in the study of plutonium disposition in general.

James M. Taylor  
Executive Director for Operations

Contact: K. Lanczycki, NMSS  
(301) 415-8143

**Attachments:**

1. Conference Record Borehole Alternatives
2. Conference Record Storage Alternatives
3. Conference Record Immobilization Alternatives
4. Conference Record Repository Issues
5. DOE Letter of Appreciation

cc: SECY