



OFFICE OF THE  
SECRETARY

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

February 3, 1993

*MS 1*  
*Stebbins*  
*Cy. Taylor*  
*Sayin*  
*Thompson*  
*Blair*  
*Kunkel*

MEMORANDUM FOR: The Chairman  
Commissioner Rogers  
Commissioner Curtiss  
Commissioner Remick  
Commissioner de Planque  
FROM: *for* Samuel J. Chalk, Secretary  
SUBJECT: STAFF REQUIREMENTS MEMORANDUM

Attached is the staff requirements memorandum on SECY-92-391. In accordance with the Commission's decision, the SRM will be issued to the staff by COB Friday, February 5, 1993, unless I hear otherwise.

The attached SRM and the subject SECY paper are considered to be "final Commission decisions" and as such will be released to the public 10 days after the date of the final SRM.

All Commissioners have agreed to release their vote sheets. Their votes will accompany the paper and SRM.

Attachment:  
As stated

CC: EDO  
OGC



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SECRETARY

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

MEMORANDUM FOR: James M. Taylor  
Executive Director for Operations

FROM: Samuel J. Chilk, Secretary

SUBJECT: SECY-92-391 - DENIAL OF PRM-60-4 - PETITION  
FOR RULEMAKING FROM THE STATES OF WASHINGTON  
AND OREGON REGARDING CLASSIFICATION OF  
RADIOACTIVE WASTE AT HANFORD

The Commission (with all Commissioners agreeing) has approved the staff's recommendation that the subject petition be denied. The Commission has approved publication in the Federal Register of the proposed notice of denial of the petition for rulemaking with the changes indicated in the attachment. The Commission has also approved the proposed letter to DOE with the changes indicated in the attachment.

The Commission (with the Chairman and Commissioner Rogers, Remick and de Planque agreeing) believe that it is DOE's responsibility to communicate to NRC any new indication that some wastes are subject to NRC licensing and therefore do not believe that DOE needs to keep the NRC informed of its ongoing assessments. The changes indicated in the attachment reflect this position, which is based on DOE assurances.

Commissioner Curtiss would have preferred that DOE explicitly document to the NRC that the criteria proposed by the staff in the subject paper have been met.

Attachment:  
As stated

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SECY NOTE: THIS SRM, SECY-92-391, AND THE VOTE SHEETS OF ALL  
COMMISSIONERS WILL BE MADE PUBLICLY AVAILABLE 10  
WORKING DAYS FROM THE DATE OF THIS SRM

cc: The Chairman  
Commissioner Rogers  
Commissioner Curtiss  
Commissioner Remick  
Commissioner de Planque  
OGC  
OIG  
Office Directors, Regions, ACRS, ACNW (via E-Mail)  
OP, SDBU/CR, ASLBP (via FAX)

managing those wastes rests with the Department of Energy. The basis for the Commission's <sup>conclusion</sup> ~~position~~ is that the reprocessing wastes disposed of in the grout facility would be "incidental" wastes because <sup>of DOE's assurances that</sup> they: (1) have been processed (or will be further processed) to remove key radionuclides to the maximum extent that is technically and economically practical; (2) will be incorporated in a solid physical form at a concentration that does not exceed the applicable concentration limits for Class C low-level waste as set out in 10 CFR Part 61; and (3) are to be managed, pursuant to the Atomic Energy Act, so that safety requirements comparable to the performance objectives set out in 10 CFR Part 61 are satisfied.

The petitioners also requested that the Commission exercise oversight to assure that the grout meets temperature requirements for low-level waste forms. They acknowledge that DOE's vault design is protective of human health and the environment if heat produced by residual radioactivity, together with heat generated from reactions during the grout process, is kept within defined limits. They present no technical data to suggest that achievement of these temperature controls presents any unusual engineering challenge. In any event, inasmuch as the Commission does not consider the grout produced in accordance with DOE's plans to be high-level waste, it does not have the authority to carry out this oversight function.

acted in this manner in its inquiries to DOE. It has obtained and evaluated information that is relevant and material to a determination whether or not the proposed activities of the DOE are subject to NRC licensing jurisdiction. All the information obtained and evaluated has been made available contemporaneously to the public.

Moreover, as a practical matter, ~~the NRC has requested the DOE to~~  
~~periodically submit summaries of the analytical results of all samples of the~~  
~~grout feeds for disposal as incidental wastes.~~ NRC recognized the  
uncertainties associated with the projected radionuclide inventories in the  
tank wastes and endorsed DOE plans for sampling and analyzing the grout feeds  
before disposal. The objective of these efforts is to control the final  
composition of the grout wastes. If DOE finds that <sup>it can no longer assure that</sup> ~~inventories of key~~  
~~these wastes will be managed in accordance with the criteria previously~~  
~~discussed, DOE should notify NRC.~~ <sup>radionuclides entering the grout facility are significantly higher than DOE</sup>  
~~estimated in 1989, DOE should notify NRC so that the Commission could~~  
~~reconsider its classification of the waste.~~ NRC has also requested DOE to  
~~provide the summaries of the analytical data to other affected parties.~~

If a standard of "largest technically achievable amount .... will be isolated" were to be applied, then the facts submitted by DOE might not be sufficient to conclude that NRC lacked jurisdiction. However, the proper standard includes considerations of economical practicality as well. As indicated in an earlier part of this decision, the Commission has obtained information that is sufficient for this purpose.

### 3. Future Adjudications

The petitioners contemplate that if a rule were to be adopted in

May 18, 1988). Further consideration of these issues is beyond the scope of this proposed rulemaking action.

### C. NRC Licensing Authority

Some comments focused on the licensing authority of NRC over the Hanford tank wastes. DOE stated that the rulemaking suggested in the petition would involve NRC in regulation of DOE's predisposal waste treatment and processing activities, which would be inconsistent with NRC authority to license specific DOE facilities under the Energy Reorganization Act of 1974. Another commenter stated that the proposed rulemaking was inconsistent with the statutory responsibilities of DOE and NRC. These arguments have already been discussed, and require no further response. It may be emphasized, however, that even if the Commission were found to have jurisdiction over the disposal facilities, it would not regulate either the tanks themselves or the facilities being used to process the wastes in these tanks; and there is reason for concern that implementation of the petitioner's proposal might draw the Commission improperly into regulation of those facilities.

A commenter concluded that DOE was currently in violation of 10 CFR Part 30 requirements for a license because various near-surface waste disposal facilities at Hanford are being used for "long-term storage" of high-level radioactive waste. The issue is not pertinent to the subject matter of the petition. However, in any case, the comment does not take into consideration the judicial interpretation of the term in Natural Resources Defense Council, Inc. v. U.S. Nuclear Regulatory Commission, 606 F.2d 1261 (D.C. Cir., 1979). The D.C. Circuit Court of Appeals ruled in this case in support of NRC's position that the tanks have not been authorized for use as long-term<sup>22</sup> storage or disposal and are, therefore, not subject to NRC licensing.





UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20585

Ms. Jill Lytle

Deputy Assistant Secretary for Waste Operations

~~Mr. John Tseng, Director~~  
~~Hanford Program Office~~  
Office of Waste Management  
Environmental Restoration  
and Waste Management  
U.S. Department of Energy  
Washington, D.C. 20585

encourage DOE to very  
carefully examine all  
available mechanisms for  
achieving greater  
radionuclide separation.

Dear ~~Mr. Tseng~~ Ms. Lytle

Members of the Nuclear Regulatory Commission staff appreciated the opportunity to meet with the Department of Energy (DOE) staff, DOE contractors, and other parties on July 16, 1992, to review new waste characterization data and current DOE plans for management of radioactive tank waste at Hanford. The purpose of this letter is to provide DOE with the staff's assessment of that information as it relates to DOE's program to classify, process and dispose of Hanford tank wastes. We are also taking this opportunity to respond to the related November 4, 1992 letter from Leo P. Duffy to Chairman Ivan Selin.

The NRC staff is concerned that especially given that  
During the meeting, DOE presented revised tank waste inventory estimates based on current characterization data. The information indicated that the double-shell tank activity that would be grouted in near-surface vaults is within earlier range estimates. However, Cs-137 quantities are now near the upper end of the range, rather than at the lower end as previously believed. DOE indicated that uncertainties associated with the activity estimates remain because of the limited sampling and analysis to date. Consequently, we

that has been conducted  
In presenting its current plans for waste management, DOE outlined its intention to complete, by March 1993, a broad reevaluation of various treatment options for both single and double-shell tanks. These options include a new facility to be used to separate radionuclides for repository disposal of high-level radioactive waste (HLW).

agreement was predicated on  
As you recall, NRC indicated to DOE, in 1989, its agreement that the criteria DOE used for classification of grout feed as low-level waste were appropriate, and, consequently, that the grout facility for disposal of double-shell tank waste would not be subject to our licensing authority (R. Bernero letter to A. Rizzo, September 25, 1989). This reflected our understanding that DOE would segregate the largest practical amount of the total site activity attributable to "first-cycle solvent extraction, or equivalent" for disposal as HLW, leaving behind only a small fraction of moderately radioactive material.

The Commission has recently completed its review of a rulemaking petition from the States of Washington and Oregon on the subject of the double-shell tank wastes and has indicated in the enclosed petition denial that it would regard the residual fraction as "incidental" waste provided that the waste (1) has been processed (or will be further processed) to remove key radionuclides to the maximum extent that is technically and economically practical; (2) will be

based on the Commission's understanding  
that DOE will assure that the  
waste:

incorporated in a solid physical form at a concentration that does not exceed the applicable concentration limits for Class C low-level waste as set out in 10 CFR Part 61; and (3) will be managed, pursuant to the Atomic Energy Act, so that safety requirements comparable to the performance objectives set out in 10 CFR Part 61 are satisfied.

It is therefore essential, in the light of this position, that DOE's present reevaluation of waste tank remediation options, and subsequent periodic evaluations as may be conducted, include the application of these principles. We recognize that there may be significant economic, programmatic, and safety factors affecting the remediation program, but the consideration of such factors as they may relate to the possible jurisdiction of NRC should be made clear.

~~We request that you keep us informed of the progress of your ongoing reassessment and of relevant technical information including, but not limited to, your tank waste treatment plans and the analytical results for tank wastes that are proposed to be sent to the grout facility.~~ <sup>during your periodic evaluations,</sup> If it becomes apparent to you that any wastes may be subject to NRC licensing, it will be necessary ~~to~~ <sup>needed</sup> determine what form of pre-licensing interactions, analogous to repository site characterization, would be ~~necessary to determine~~ <sup>define</sup> the appropriate disposition of these wastes.

I trust that this letter, and the enclosed petition denial, provide the information requested in Leo P. Duffy's November 4, 1992, letter to Chairman Ivan Selin, regarding NRC's intended response to the rulemaking petition by the States of Washington and Oregon. If you have any further questions, please feel free to contact me, at 301-504-3352, or B.J. Youngblood, Director of the Division of High-Level Waste Management, at 301-504-3404.

Sincerely,

Robert M. Bernero, Director  
Office of Nuclear Material Safety  
and Safeguards

Attachment:

As stated

J. Tseng, DOE-EM-36  
cc: J. Anttonen, DOE-RL  
J. Bartlett, DOE-RW-1  
L. Duffy, DOE-EM-1  
D. Duncan, EPA  
R. Stanley, Washington State  
J. Franco, Oregon State  
R. Jim, YIN

for you to communicate that concern to NRC.  
It will then be necessary to