QA: NA

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SECRETARY

June 9, 2005

COMMISSION VOTING RECORD

DECISION ITEM: SECY-05-0051

TITLE: DETAILS AND PROJECTED COST OF A DEMONSTRATION TEST OF A FULL-SCALE SPENT NUCLEAR FUEL RAIL TRANSPORTATION CASK UNDER THE PACKAGE PERFORMANCE STUDY

The Commission (with all Commissioners agreeing) approved the subject paper as recorded in the Staff Requirements Memorandum (SRM) of June 9, 2005.

This Record contains a summary of voting on this matter together with the individual vote sheets, views and comments of the Commission.

Annette L. Vietti-Cook
Secretary of the Commission

Attachments:
1. Voting Summary
2. Commissioner Vote Sheets

cc: Chairman Diaz
Commissioner McGaffigan
Commissioner Merrifield
Commissioner Jaczko
Commissioner Lyons
OGC
EDO

QA: NA

VOTING SUMMARY - SECY-05-0051

RECORDED VOTES

	APRVD	DISAPRVD	ABSTAIN	NOT PARTICIP	COMMENTS	DATE
CHRM. DIAZ	X				X	4/12/05
COMR. McGAFFIGAN	X				X	5/11/05
COMR. MERRIFIELD	X				X	5/4/05
COMR. JACZKO	X				X	5/10/05
COMR. LYONS	X				X	4/14/05

COMMENT RESOLUTION

In their vote sheets, all Commissioners approved the staff's recommendation and provided some additional comments. Subsequently, the comments of the Commission were incorporated into the guidance to staff as reflected in the SRM issued on June 9, 2005.

QA: NA

NOTATION VOTE

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary

FROM: CHAIRMAN DIAZ

SUBJECT: **SECY-05-0051 - DETAILS AND PROJECTED COST OF A DEMONSTRATION TEST OF A FULL-SCALE NUCLEAR FUEL RAIL TRANSPORTATION CASK UNDER THE PACKAGE PERFORMANCE STUDY**

Approved XX Disapproved _____ Abstain _____

Not Participating _____

COMMENTS:

See attached comments.

SIGNATURE

4/12/2005

DATE

Entered on "STARS" Yes ✓ No ___

QA: NA

CHAIRMAN DIAZ's COMMENTS ON SECY-05-0051, DETAILS AND PROJECTED COST OF A DEMONSTRATION TEST OF A FULL-SCALE SPENT NUCLEAR FUEL TRANSPORTATION CASK UNDER THE PACKAGE PERFORMANCE STUDY

I approve the staff's proposed test plan and projected costs for the Package Performance Study (PPS), and I commend the staff for being responsive to the Commission's existing direction as provided in the Staff Requirements Memorandum (SRM) for SECY-04-0135. That SRM resulted from significant efforts on the parts of both the staff and the Commission itself. In view of the schedule and funding uncertainties associated with the potential establishment of a high-level waste repository, I believe that the Commission's current consensus position on the PPS test plan remains a viable point of departure for further refinement of the PPS project.

In my vote on SECY-04-0135, I stated my belief that the Commission is obligated to judiciously apply its resources in carrying out its mission, and that a comprehensive analysis of newly available technical data would significantly support this obligation as it applies to the PPS. Since that vote, it has become even more evident that there are several efforts in progress by many countries to address the design, testing, and certification of spent nuclear fuel transportation casks. The staff should continue to review and analyze full- and quarter-scale cask testing to determine the extent to which they support the objectives of the PPS. The staff should provide recommended enhancements to the PPS project that may result from this review and analysis. In parallel with its technical review, the staff should remain cognizant of developments in the US high level waste program, and recommend an appropriate time to begin executing the PPS in accordance with the schedule provided in SECY-05-0051.

The staff's proposed test plan as provided in this SECY is not the final word on this issue, as the project is subject to additional enhancements and Commission direction once additional information becomes available. The staff's plan provides a substantial base for progress now.

QA: NA

NOTATION VOTE

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary

FROM: COMMISSIONER MCGAFFIGAN

SUBJECT: **SECY-05-0051 - DETAILS AND PROJECTED COST OF A DEMONSTRATION TEST OF A FULL-SCALE NUCLEAR FUEL RAIL TRANSPORTATION CASK UNDER THE PACKAGE PERFORMANCE STUDY**

Approved __X__ w/comments Disapproved _____ Abstain _____

Not Participating _____

COMMENTS:

See attached comments.

Edward McGaffigan Jr.
SIGNATURE

May 11, 2005
DATE

Entered on "STARS" Yes _X_ No ___

QA: NA

Commissioner McGaffigan's Comments on SECY-05-0051

I approve the staff's proposed activities and schedule for the Package Performance Study (PPS). I also agree with Commissioner Lyons' suggestion of adding a realistic fire test scenario to the study.

Although there is no regulatory requirement for NRC or the licensees to test full scale casks, and the current tests performed on scale models are fully protective of public health and safety, I believe that the PPS will prove to be an important factor in increasing the public confidence in the transportation of spent fuel. I have complete confidence in the NRC current regulatory standards for testing casks and that the current fleet of approved casks can safety transport spent nuclear fuel. However, others do not have this same confidence and I believe NRC should do more to try to demonstrate the incredible robustness of these casks to the public.

In this regard I would, as I have in the past, support an even broader scope for the PPS. I would support performing full scale regulatory and demonstration tests on both a rail cask and a truck cask. I realize that these tests would be expensive, and an expanded scope for two casks would be even more expensive, but I believe we have enough time that the tests and the costs can be spread over many years. We do not have to get all of this done in the next few years.

Therefore, I support the proposed demonstration test and the additional fire test, and I hope that future Commissions will support further full scale testing on a truck cask as resources allow.

EMcG

QA: NA

NOTATION VOTE

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary

FROM: COMMISSIONER MERRIFIELD

SUBJECT: **SECY-05-0051 - DETAILS AND PROJECTED COST OF A DEMONSTRATION TEST OF A FULL-SCALE NUCLEAR FUEL RAIL TRANSPORTATION CASK UNDER THE PACKAGE PERFORMANCE STUDY**

Approved ✓ Disapproved _____ Abstain _____

Not Participating _____

COMMENTS:

See attached comments.

SIGNATURE

6/4/05

DATE

Entered on "STARS" Yes X No ___

QA: NA

Comments from Commissioner Merrifield on SECY-05-0051:

I approve the proposed details of a demonstration test of a full-scale nuclear fuel rail transportation cask as outlined in SECY-05-0051. The staff did an excellent job in addressing the issues raised in the last Commission staff requirements memorandum issued on the package performance study. Now that we have two new Commissioners, a proposal has been made to add a realistic fire test to the demonstration test. I have no objection to adding a realistic fire test to the demonstration test if it could be done at a reasonable cost. Therefore, staff should submit an information paper outlining details of a proposed realistic fire test to be added to the demonstration test and projected costs for the fire test.

5/4/05

QA: NA

NOTATION VOTE

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary

FROM: COMMISSIONER JACZKO

SUBJECT: **SECY-05-0051 - DETAILS AND PROJECTED COST OF A DEMONSTRATION TEST OF A FULL-SCALE NUCLEAR FUEL RAIL TRANSPORTATION CASK UNDER THE PACKAGE PERFORMANCE STUDY**

Approved X Disapproved _____ Abstain _____

Not Participating _____

COMMENTS:

I approve subject to the attached comments.

SIGNATURE

5/18/05

DATE

Entered on "STARS" Yes X No ___

QA: NA

Commissioner Jaczko's Comments on SECY-05-0051
Details and Projected Cost of a Demonstration Test of a Full-Scale Spent Nuclear Fuel Rail Transportation Cask Under the Package Performance Study

I approve the staff's proposal to move forward with a demonstration test of a full-scale spent nuclear fuel rail transportation cask outlined in SECY-05-0051. In addition, I believe this demonstration test should include a fully engulfing optically dense fire for a duration of more than half an hour as indicated in NUREG-1768. I also encourage the staff to expeditiously submit a plan to the Commission for proceeding with full-scale testing to the regulatory limits of both rail casks and, as soon as a prototype has been developed, truck casks.

In combination, these three tests will more closely address two of the four themes identified in the public comments on NUREG-1768, including recommendations to conduct full-scale tests to the regulatory limits, conduct realistic demonstration tests based on realistic accident scenarios, test the casks to failure, and address the threat of terrorism. The staff should explore ways to incorporate the lessons learned from other vulnerability assessments into this study to address the concern about potential terrorist attacks, and depending on the results of the full-scale tests, the Commission may need to instruct the staff to conduct additional tests.

Being responsive to these public concerns and thereby building confidence in our efforts to protect public health and safety, is an important goal which alone justifies this level of effort over the next few years. Performing full-scale demonstration and regulatory tests is also sound science – it will allow us to validate the assumptions we have made in our modeling activities.

QA: NA

NOTATION VOTE

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary

FROM: COMMISSIONER LYONS

SUBJECT: **SECY-05-0051 - DETAILS AND PROJECTED COST OF A DEMONSTRATION TEST OF A FULL-SCALE NUCLEAR FUEL RAIL TRANSPORTATION CASK UNDER THE PACKAGE PERFORMANCE STUDY**

Approved __x__ Disapproved _____ Abstain _____

Not Participating _____

COMMENTS:

See attached comments.

SIGNATURE

4/14/05

DATE

Entered on "STARS" Yes ___ No ___

QA: NA

Commissioner Lyon's Comment on SECY-05-0051, Details and Project Cost of a Demonstration Test of a fuel-Scale Spent Nuclear Fuel Transportation Cask Under the Package Performance Study

I approve staff's proposed full scale demonstration test plan to show the inherent safety in spent fuel cask design. However, it is my belief that staff should add a realistic fire test scenario for a rail cask involving fully engulfing, optically dense, hydrocarbon fire for a duration of one-half hour post-collision. Staff should evaluate the data derived from the full scale demonstration test to inform the analytical methods and assumptions of the scale model. I support the staff's effort in negotiating a cooperative agreement with BAM facility to obtain analytical data that support the Package Performance Study.

In reviewing SECY-04-0029 and SECY-04-0135, it is clear to me that the resources needed to add a realistic fire test, and evaluate the derived data against the model are above the current budget assumptions. However, the benefit of providing additional assurance to the general public that our process for licensing cask designs adequately satisfies our regulatory requirements cannot be overlooked. In order to alleviate some of the resource constraint, staff should engage with higher level management in DOE to request funding to support this demonstration test. NRC should request increased funding from Congress for a specific appropriation if DOE is unable to provide the necessary funding. Finally, ACNW should be requested to review the revised test protocol.

I concur with the second paragraph of the Chairman's vote.