

June 9, 2005

MEMORANDUM TO: Luis A. Reyes
Executive Director for Operations

FROM: Annette L. Vietti-Cook, Secretary */RA/*

SUBJECT: STAFF REQUIREMENTS - 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

The Commission has approved the staff's proposed test plan and projected costs for the full-scale nuclear fuel rail transportation cask as outlined in SECY-05-0051. The staff should add a fire test scenario for a rail cask involving fully engulfing, optically dense, hydrocarbon fire for a duration of one-half hour post-collision.

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 Package Performance Study (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 U.S. 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 modifications and Commission direction once additional information becomes available. The staff's plan provides a substantial base for progress now.

The staff should inform the Commission via a Commissioner's Technical Assistant briefing on the details of a proposed fire test to be added to the demonstration test and projected costs for the fire test.

The staff should evaluate the data derived from the full scale demonstration test to inform the analytical methods and assumptions of the scale model. Depending on the results of the full-scale test and the evaluation of the data, the Commission may need to instruct the staff to conduct additional tests. Additionally, the staff should continue their efforts to negotiate a cooperative agreement with the German Federal Institute for Materials Research and Testing (BAM) facility to obtain analytical data that support the Package Performance Study. If the need arises in the future, the staff should submit a plan to the Commission for proceeding with full-scale testing to the regulatory limits of both rail casks and truck casks.

In order to alleviate some of the resource constraint, the 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.

cc: Chairman Diaz
Commissioner McGaffigan
Commissioner Merrifield
Commissioner Jaczko
Commissioner Lyons
DOC
OGC
CFO
OCA
OPA