

August 15, 2000

MEMORANDUM TO: Chairman Meserve
Commissioner Dicus
Commissioner Diaz
Commissioner McGaffigan
Commissioner Merrifield

FROM: William D. Travers */RA/*
Executive Director for Operations

SUBJECT: STATUS OF STUDY ON SPENT FUEL POOL ACCIDENT RISK AT
DECOMMISSIONING NUCLEAR POWER PLANTS (WITS 9900132)

The staff has been working for the past few months to respond to comments from the Advisory Committee on Reactor Safeguards (ACRS), the Nuclear Energy Institute (NEI), and others on the staff's draft study on spent fuel pool (SFP) decommissioning risks. The study is intended to provide the technical foundation for rulemaking in the decommissioning area (including both the integrated rulemaking discussed in SECY-00-145 and the broader scope decommissioning regulatory improvement initiative discussed in SECY-99-168) and technical information to support any exemption requests in the interim until revised rules are established. The current schedule for completion of the final report is August 31, 2000. This schedule was established on the basis that although the comments were substantial and would require significant effort to address, the draft report could be modified to address the issues raised with only minor changes in the conclusions of the study.

Significant progress has been made in several areas, including the issues of SFP source term (i.e., behavior of ruthenium and other fission products in an air environment) and performance of fuel cladding at high temperatures in an air environment. However, the issue of seismic contributions to risk continues to be a major source of uncertainty. Both the ACRS and NEI have commented that the seismic risk estimates were conservative in the draft report. NEI has requested a public meeting with the staff to present its views on seismic risk. We believe that such a meeting could be helpful in addressing the seismic uncertainties and have scheduled one for August 23, 2000. RES has been considering this issue as well, and the August 23 meeting will provide a useful forum for an open discussion with RES and industry experts.

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Because the current estimated seismic contribution to SFP decommissioning risk is substantially greater than other contributions, information that could change the estimated seismic contribution could have a significant effect on the timing and the nature of regulatory relief allowed by ongoing decommissioning rulemaking efforts. Reducing the seismic challenge frequencies would also simplify other difficult issues that the staff has been reviewing, namely, the "partial draindown" or other sequences involving blocked or impeded air flow.

In order to accommodate the August 23 meeting and possibly reflect information from the meeting in the SFP decommissioning risk study, the schedule for completion of the study needs to be extended beyond the current due date of August 31, 2000. At a minimum, the schedule needs to be extended to the end of September 2000; however, significant new information or new approaches suggested at the August 23 meeting would likely extend the schedule beyond that date.

The staff recognizes the potential effect of a schedule change in the due date of the SFP decommissioning risk study on other efforts, including the plan of action for the decommissioning regulatory improvement initiative currently scheduled for completion on September 15, 2000. Based on information gained from the public meeting with NEI on August 23, 2000, the staff will provide to the Commission by September 15, 2000, its completion dates for both the risk study and the plan of action for the decommissioning regulatory improvement initiative.

cc: OGC
OCA
OPA
CFO
CIO
SECY

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cc: OGC OCA OPA CFO CIO SECY

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* See previous concurrences

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