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

August 18, 1999

MEMORANDUM TO: John W. Craig, Director
Division of Engineering Technology
Office of Nuclear Regulatory Research

FROM: Gary M. Holahan, Director
Division of System Safety and Analysis
Office of Nuclear Reactor Regulation

A handwritten signature in black ink, appearing to read "G. M. Holahan".

SUBJECT: REQUEST FOR REVIEW OF DRAFT TECHNICAL STUDY OF SPENT
FUEL POOL ACCIDENTS FOR DECOMMISSIONING PLANTS
(TAC NO. MA5099)

The Office of Nuclear Reactor Regulation (NRR) is in the process of developing a risk-informed technical basis to establish a predictable approach for requesting and granting exemptions to licenses and to increase the efficiency and effectiveness of decommissioning regulations. We formed a technical working group (TWG) to perform a study of spent fuel pool accidents. A draft version of the study was provided in the report, "Draft Technical Study of Spent Fuel Pool Accidents for Decommissioning Plants." A public workshop was held on July 15 and 16, 1999, to discuss issues related to the report. With regard to the consideration of beyond design basis events, your staff and consultants provided very effective technical support and this led to the consensus that a seismic check list can be used to screen out plants from further review of seismic vulnerability.

The next phase of our effort in this area includes providing the stakeholders and other technical organizations with a technically sound set of attributes for the seismic check list. The concept of this check list was discussed in the staff's draft technical study, but it needs further refinement and practicality review. The assistance of your staff and consultants in the Engineering Research Applications Branch is requested to perform an independent review of the seismic part of the TWG's draft study and the input from the Nuclear Energy Institute (NEI) on the seismic check list. This need for technical assistance from your staff was discussed with you recently. A copy of the report and details regarding the requested review are attached. The NEI input on the seismic check list will be forwarded upon receipt. Please provide your recommendations in response to this request by November 19, 1999.

Attachments: As stated

CONTACT: Diane Jackson, SPLB/DSSA/NRR
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OFFICE OF NUCLEAR REACTOR REGULATION
DIVISION OF SYSTEMS SAFETY AND ANALYSIS
PLANT SYSTEMS BRANCH
DRAFT TECHNICAL STUDY OF SPENT FUEL POOL ACCIDENTS
FOR DECOMMISSIONING PLANTS

BACKGROUND

The Nuclear Regulatory Commission (NRC) is currently updating and developing its regulatory guidance to address issues related to the decommissioning of permanently shutdown power reactor facilities. The NRC has determined it will risk inform its process of granting exemptions for decommissioning facilities in the areas such as emergency procedures and insurance. The Office of Nuclear Reactor Regulation (NRR) formed a technical working group (TWG) to evaluate spent fuel pool accidents at decommissioning plants using deterministic and probabilistic assessments. We made a draft version of the technical study available to the industry and the public, and held several public meetings to solicit comments and provide information to the industry and the public as to how we are proceeding in the process to develop a risk informed approach. In order to further increase public confidence, and ensure the draft technical study is a more effective document, we conducted a public workshop on July 15 and 16, 1999. The purpose of the workshop was to interface with the industry and public to identify risk perspectives, design characteristics, procedures, capabilities, or other aspects of decommissioning plants that may refine the scenarios and analyses in the draft technical study. With regard to the consideration of beyond design basis events, your staff and consultants in the Engineering Research Applications Branch provided very effective technical support at the workshop and this led to the consensus that a seismic check list can be used to screen out plants from further review of seismic vulnerability.

We seek the assistance of your staff and consultants in the Engineering Research Applications Branch to perform an independent review of the seismic part of the TWG's draft study and the input from the Nuclear Energy Institute (NEI) on the seismic check list.

OBJECTIVE

The specific objective of this request is to obtain the technical expertise necessary to assist NRR in assessing and updating the seismic part of the draft technical study, providing sound technical recommendations for the seismic check list and the seismic check list input provided by the NEI.

WORK REQUESTED AND SCHEDULE

The assistance of your staff is requested to perform the following tasks related to reviewing the draft technical study of spent fuel pool accidents for decommissioning plants:

1. Evaluate the seismic part of the TWG's draft study and the input from NEI on the seismic check list for technical soundness and scope.

2. Provide recommendations on practical measures to mitigate the effects of seismic vulnerability that could be adopted by decommissioning plants as a defense-in-depth action.

We request that this work be performed by November 19, 1999, to support our overall project schedule.