



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

August 3, 1999

T 10E37

2/10

Mark,

Your action  
Due 11/19/99.  
TJC

MEMORANDUM TO: Thomas King, Director  
Division of Risk Analysis and Applications  
Office of Nuclear Regulatory Research

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

T E Colliffe

SUBJECT: REQUEST FOR REVIEW OF DRAFT TECHNICAL STUDY OF SPENT  
FUEL POOL ACCIDENTS FOR DECOMMISSIONING PLANTS  
(TAC# 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 licensees, to increase the efficiency and effectiveness of decommissioning regulations. The technical working group (TWG) has performed a technical study of spent fuel pool accidents and provided the findings in the report, "Draft Technical Study of Spent Fuel Pool Accidents for Decommissioning Plants."

The next phase of this effort consists of providing the stakeholders and other technical organizations with the report for an independent, technical, quality review and comment to refine the TWG's assumptions and findings. The assistance of your staff in the Probabilistic Risk Analysis Branch is requested to perform an independent review of the TWG's draft study. We have discussed the review with Mark Cunningham of your staff. A copy of the report and details regarding the requested review and time schedule involved are attached.

Attachments: As stated

CONTACT: Diane Jackson, SPLB/DSSA/NRR  
301-415-8548

M/28

OFFICE OF NUCLEAR REACTOR REGULATION  
DRAFT TECHNICAL STUDY OF SPENT FUEL POOL ACCIDENTS  
FOR DECOMMISSIONING PLANTS

BACKGROUND

The 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 of emergency procedures (EP), insurance, and safeguards. The NRC has developed a draft interim risk assessment that evaluates how spent fuel pools would react to postulated severe accidents. The NRC has made this draft interim risk assessment available to the industry and the public, and has held several public meetings to solicit public comment and provide information to the industry and the public as to how the NRC is proceeding in its process of developing a risk informed approach. In order to further increase public confidence, and ensure the draft technical study is a more effective document, the NRC conducted a public workshop on July 15-16, 1999. The purpose of the workshop was to interface with the industry and the 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

The staff seeks a broad independent, technical, quality review of the report, "Draft Technical Study of Spent Fuel Pool Accidents at Decommissioning Plants."

OBJECTIVE

The overall objective of the independent, technical, quality review is to assist NRR by providing technical assistance in a variety of areas related to spent fuel pool accidents and the associated risk at decommissioning plants. The specific objectives are to provide the multi-disciplinary managerial and technical expertise necessary to assist NRR in assessing and updating the draft technical study, providing recommendations on measures that could be taken to improve the technical working group's (TWG) efforts, and summarizing and providing responses to stakeholder comments on the draft technical report.

This project is expected to involve the development of information on risk, thermal hydraulic analysis, heavy load movement, seismic factors, and plant experience associated with the operation of spent fuel pools at decommissioning commercial nuclear power plants. The results of this effort have the potential to affect entities regulated by the NRC and industry organizations.

## 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 technical accuracy, scope, and quality of the staff's draft technical study for decommissioning reactors.
2. Provide recommendations on measures that could be taken to refine the TWG efforts.

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

*Thermal hydraulics too?*

*11/2/99 I called D. Jackson. Not in, but shell call back.  
at 10:45*

**DRAFT**

**DRAFT Technical Study of Spent Fuel Pool Accidents  
for Decommissioning Plants**

June 1999

**DRAFT**

**Technical Working Group:**

**Group Leader: Vonna Ordaz, DSSA/SPLB**

**Members:**

- Goutam Bagchi, DE**
- Christopher Boyd, RES**
- Michael Cheok, DSSA/SPSB**
- Edward Connell, DSSA/SPLB**
- Tanya Eaton, DSSA/SPLB**
- Edward Ford, DIPM/IQMB**
- Christopher Gratton, DSSA/SPLB**
- Ken Heck, DIPM/IQMB**
- Diane Jackson, DSSA/SPLB**
- Glenn Kelly, DSSA/SPSB**
- Larry Kopp, DSSA/SRXB**
- James O'Brien, DIPM/IOLB**
- Jason Schaperow, RES**
- Joseph Staudenmeier, DSSA/SRXB**
- Edward Throm, DSSA/SPSB**