



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

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MEMORANDUM TO: George Hubbard, Section Leader  
BOP and Containment System Section  
Plant Systems Branch  
Division of Systems Safety and Analysis

FROM: *Cynthia A. Carpenter*  
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Generic Issues, Environmental, Financial  
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Division of Regulatory Improvement Programs

SUBJECT: PUBLIC COMMENTS ON "DRAFT FINAL TECHNICAL STUDY OF  
SPENT FUEL POOL ACCIDENT RISK AT DECOMMISSIONING  
PLANTS"

These responses relate to insurance and indemnity issues raised by NEI on pages 3-4 of their comments to the "Draft Final Technical Study of Spent Fuel Pool Accident Risk at Decommissioning Plants." Because the four comments are so closely interrelated, the following information answers their concerns. In previous responses to NEI concerns about these issues, the staff has stated that while it is correct that the risk of a zirconium fire is not significant, the property and liability insurance requirements of our regulations are meant to ensure that the public is protected in the event of a low probability, high consequence event. The underlying purpose of Section 50.54(w) is to provide sufficient property damage insurance coverage to ensure funding for onsite post-accident recovery stabilization and decontamination costs in the unlikely event of a nuclear accident. Section 140.11 also serves to provide sufficient liability insurance to ensure funding for claims resulting from a nuclear incident or precautionary evacuation.

In SECY-93-127, the Commission established that the amount of insurance coverage necessary for reactor licensees should be determined by the worst "reasonably conceivable" accident possible. Reasonably conceivable accidents may exceed design basis accidents but are less severe than remotely possible hypothetical accidents that are often termed "incredible." The TWG risk study concluded that the probability of a zirconium fire at a permanently shutdown plant is low but did not conclude that its probability is low enough to be considered "incredible." Thus, adequate insurance coverage is necessary for such an event.

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The zirconium fire scenario would be possible for up to several years following shutdown. Since the consequences of such a fire are severe in terms of property damage and land contamination, the staff position is that full offsite liability coverage must be retained for five years or until analysis has indicated that a zirconium fire is no longer possible. At that point, primary coverage would be reduced from \$200 million to \$100 million and participation in the secondary retrospective pool would no longer be required. When all fuel was moved offsite or to an onsite dry cask storage system, the primary insurance coverage would be reduced to \$25 million.