Heavy Loads

Industry stakeholders raised a concern that the heavy load risk assessment in the draft report did not give sufficient credit for NUREG-0612 actions and used the conservative upper bound values.

To address these concerns, we employed the use of more recent Navy data to requantify the fault tree, included the mean value estimate for compatibility with Regulatory Guide 1.174, and addressed industries voluntary commitment to Phase II of NUREG-0612. The final results were subjected to an independent technical review and are included in Chapter 4 of this report.

Seismic

To take credit for the seismic design margins existent in spent fuel pools, we sought an appropriate method to identify potential structural vulnerabilities without having to perform a detailed fragility review. At a public workshop on July 15-16, 1999, industry proposed development of a simple spent fuel pool seismic checklist as a way of assessing seismic vulnerabilities without performing quantifying analyses.

Need latest LTR

In a letter dated August 18, 1999, NEI proposed a "seismic checklist" for screening which we consider to be an excellent approach to plant-specific seismic assessments; however, some deficiencies have been identified in the checklist proposed by NEI. A discussion of the "seismic checklist" and our concerns are discussed in Chapter 4 of this report.

Also discussed at Mar 8 Commission meeting

Criticality

A public stakeholder concluded that the June 1999 draft report did not address the potential for a criticality accident to occur in a SFP for a decommissioned plant.

Therefore, we examined the mechanisms by which a criticality accident could occur to assess the potential for criticality, evaluate its consequences, and assess the likelihood of an criticality event. Those results were subjected to an independent technical review where additional mechanisms were proposed and examined. The results of the analysis are included in Chapter 5 of this report.

Thermal Hydraulic Assessment

Industry stakeholders raised a concern that the thermal hydraulic assessment presented in the June 1999 draft report used overly conservative adiabatic heatup calculations and a maximum clad temperature that was too conservative compared to the zirconium ignition temperature.

We refined the thermal hydraulic analysis presented in the draft report and subjected those results to an independent technical review. The results of the analysis are included in Chapter 3 of this report.

Concrete Aging of the SFP Move to top of next page.

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A public stakeholder raised a concern that the June 1999 draft report did not address the potential for concrete aging in SFP's at decommissioned plants.

At the July 16, 1999 workshop, we committed to discussing the issue of concrete strength over time and the potential aging/degradation issue for SFP's. A discussion of this topic is found in Appendix 2 of this report.

Seismic Effects on SFP Integrity

A public stakeholder raised a concern that the June 1999 draft report did not examine vulnerabilities related to the transfer tube and other SFP design vulnerabilities resulting from a seismic event for decommissioned plants. A discussion of this topic is found in Appendix 2 of this report.

Partial Draindown and Exothermic Reaction of SFP

An industry stakeholder reported that we did not address or consider the implications of a partial draindown as being as serious or worse then a complete draindown. They also raised a concern that the draft report did not address the potential for a hydrogen explosion resulting from an exothermic reaction between steam and zirconium. A discussion of this topic is found in Chapter 3 of this report.

Safeguards

A public stakeholder stated that the draft report did not address the potential or threat for vehicle-borne bombs. We revised the draft report to include a discussion on this matter. A discussion of this topic is found in Chapter 6 of this report.

Impact of Decommissioning on Operating Units

A public stakeholder raised a concern that we did not consider the impacts on operating units of removing the water from a SFP at a decommissioning site, such as Millstone and SONGS. We revised the draft report to include a discussion on this matter. The results of our review are found in **[Chapter]** of this report.

Industry Information

An industry stakeholder suggested that we should include industry data on zirconium fires from Teledyne Wah Chang, a zirconium manufacturer. At the request of industry representatives, on Thursday, May 13, 1999, we contacted two employees of Teledyne Wah Chang by telephone to gain more information on zirconium fires. As a result of this call, references were sent to us that discussed zirconium cladding.

The results of both the call and the references enabled the working group to determine that the zirconium information presented by Teledyne Wah Chang was consistent with the working group findings.