

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

OCT 22 1975

R. C. DeYoung, Assistant Director for Light Water Reactors, Group 1, RL  
GRAND GULF 1 AND 2 - EVALUATION OF POOL DYNAMIC LOADS (TAR-1579)

Plant Name: Grand Gulf 1 and 2  
Docket Nos.: 50-416/417  
Licensing Stage: Post CP  
Project Manager: E. Butcher  
Requested Completion Date: October 15, 1975  
Technical Review By: Containment Systems Branch  
Description of Task: Evaluate 8/15/75 Submittal by MP&L  
Review Status: Complete

As part of our continuing evaluation of pool dynamic loads for Grand Gulf (TAR-1579), the Containment Systems Branch has reviewed the applicant's submittal of August 15, 1975. This document provides clarification of the Grand Gulf design to accommodate pool dynamic loads as requested in the NRC's letter to MP&L (W. Butler to N. Stampley) dated June 23, 1975. Based on our review, we would find the pool dynamic loads specified for Grand Gulf to be acceptable provided the applicant adopts the following positions:

1. Structural protuberances from the drywell; specifically, the drywell equipment hatch, the drywell personnel lock, and the containment personnel lock should be extended into the suppression pool and designed for coincident loads due to air bubble (equal to peak drywell pressure) and pool drag (based on a pool swell surface velocity of 40 ft/sec).
2. Confirm that the asymmetric bubble load on the containment, discussed on Page 72 of the August 15, 1975, MP&L letter, is a design basis load.
3. Confirm that the loads due to actuation of safety relief valves with a ramshead discharge, and which are used as a design basis for the Grand Gulf design, have been calculated using the analytical model described in NEDE-20942P.
4. Safety relief valve loads on structures submerged in the suppression pool should be based on a ramshead discharge.

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5. The oscillatory safety relief valve bubble load should be applied to the design of all submerged structures in the suppression pool.
6. Confirm that the load due to actuation of two adjacent safety relief valves is considered to be a design basis event for the Grand Gulf plant consistent with the specifications of NEDE-11314-08.

The above positions are consistent with the standard acceptance criteria developed for MARK III pool dynamic loads and currently being applied to all plants with MARK III containments.

*Robert L. Tedesco*

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GRAND GULF 1 AND 2 - EVALUATION OF POOL DYNAMIC LOADS (~~CONTINUATION OF~~  
TAR -1579)

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Project Manager: E. Butcher  
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6. Confirm that the load due to actuation of two adjacent safety relief valves is considered to be a design basis event for the Grand Gulf plant consistent with the specifications of NEDE-11314-08.

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