Docket File
50-272/311

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

September 19, 1997

LICENSEE: Public Service Electric and Gas Company

FACILITY: Salem Nuclear Generating Station, Units 1 and 2

SUBJECT: SUMMARY OF SEPTEMBER 9, 1997, MEETING TO DISCUSS ANALYSIS OF THE SPENT FUEL POOL LINER (TAC NO. M94465)

On September 9, 1997, members of Public Service Electric & Gas Company (PSE&G, the licensee) met with the U.S. Nuclear Regulatory Commission (NRC) in Rockville, Maryland, to discuss the licensee's analysis of the spent fuel pool (SFP) liner for Salem, Units 1 and 2. Enclosed is a list of the meeting attendees.

Since the Salem SFP systems are not seismically qualified, the licensee's analysis assumed the loss of SFP cooling and a resulting water temperature of 220 °F. The NRC had completed its review of the licensee's analysis of the effects of the high temperature on the SFP steel liner and stated during the meeting that the licensee's analysis was not acceptable for the following reasons:

(1) The calculated shear deflection at the plug weld was about twice the ASME Code allowable value at the failure load based on test data cited by the licensee.

(2) The analysis is not of sufficient detail to capture prying actions at a plug weld. The analysis indicates that there is a large out-of-plane deflection which may induce a large prying force at a plug weld.

(3) The analysis assumed that the failure mode is a pure shear at the plug weld. However, even with this assumption on a plug weld, adjacent plug welds could fail by the induced prying force due to a larger out-of-plane deflection.

(4) The failure mode of the plug welds would be progressive and the buckling mode of the steel plate is interactive with plug weld failures. If there is any failure at a plug weld, the steel plate area that would be subjected to a larger compressive force and may be susceptible to buckling due to the larger deflection of the plate.

The licensee stated that these concerns with the analysis do not represent an immediate safety hazard since the heat load currently in the Salem SFPs is not sufficient to raise the temperature to these levels even if there is no SFP cooling. The licensee committed to limit the heat load in the SFPs until the

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issue is resolved. The licensee will explore three options: revise the analysis to resolve the NRC concerns, conduct testing, or seismically qualify the SFP cooling system. The licensee will inform the NRC in about one month as to which option it has chosen.

/S/
Leonard Olshan, Project Manager
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Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket Nos. 50-272/311

Enclosure: Meeting Attendees

cc w/encl: See next page

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Enclosure: Meeting Attendees

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SALEM NUCLEAR GENERATING STATION, UNITS 1 AND 2
MEETING TO DISCUSS SPENT FUEL POOL LINER ANALYSIS
SEPTEMBER 9, 1997

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Y. Kim	NRC/NRR
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D. Jackson	NRC/NRR
C. Gratton	NRC/NRR
G. Hubbard	NRC/NRR
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