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

August 29, 1994

Docket Nos. 50-390
and 50-391

MEMORANDUM FOR: Docket File

FROM: Peter S. Tam, Senior Project Manager
Project Directorate II-4
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

SUBJECT: WATTS BAR NUCLEAR PLANT - MATERIAL TO BE USED IN UPCOMING CONFERENCE CALLS (M79992, M89217 AND M89218)

The attached two pages of comments were faxed to TVA today to prepare its site personnel for upcoming conference calls. The comments do not constitute a formal request for additional information, nor formal staff position.

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Distribution:
PDR and local PDR

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Telecon Request

Agenda for discussion with TVA regarding Watts Bar II.D.1 response dated 7-19-94

Item 1: In response no. 5, it is stated that the maximum forces applied to certain pipe segments are bounded by cold overpressure mitigation system (COMS) events (Cases 5 and 6). However, response no. 8 stated that Cases 5 and 6 were not limiting cases in the structural analysis. Please clarify this apparent inconsistency.

Item 2: In response no. 6, it is stated that the maximum piping forces are produced in less than approximately 1 second after valve opening which would be before liquid water is discharged from the PORVs and/or PSVs. For some transients, however, the valve inlet conditions transition to water. For these transients, the initial PORV/SRV inlet conditions could be liquid if the valves close and then open after liquid discharge begins. Do the analyzed steam discharge loads also bound those due to the PORV/SRV liquid discharge events?

Item 3: In response no. 7, it was stated that the maximum calculated plant PORV flow rate used in the piping analysis was 233,333 lb/hr. This is the PORV rated flow with the 0.9 derating factor removed. Based on a comparison of the actual flow rates for the EPRI test valve to the rated flow of the EPRI test valve, is removing the 0.9 factor conservative for estimating maximum plant piping loads? That is, was the measured flow for the EPRI test valve less than or equal to the rated flow divided by 0.9? Alternately, TVA's response to question 2 in its December 26, 1992 submittal mentioned testing by Target Rock on a Watts Bar plant specific PORV. Was the measured flow in these tests less than or equal to the rated flow divided by 0.9? If not, provide information to justify the conservatism of the piping thermal-hydraulic and structural analysis.

Item 4: In response no. 7, the peak system pressure in the six thermal-hydraulic analyses was provided. The peak pressures given in response no. 7 for cases 2 and 4 were not consistent with response no. 6. In response no. 7, the peak system pressure for Case 4 is 2374.7 psia while in response no. 6 the system pressure for Case 4 is 2445.6 psia when the PSVs close, for example. In addition, the peak system pressures in response no. 7 are not consistent with those given in the table on page E1-21, response 13b, of the December 26, 1992 submittal. Please clarify the apparent inconsistencies.

TAC M79992

G. Hammer

Telecon Issues: FSAR Amendment 86

FSAR Sections 9.2.1 and 9.2.2, Amendment 86 says that manual actions are relied upon to isolate the nonsafety-related portions of the emergency raw cooling water (ERCW) system and the component cooling (CC) system. If these nonsafety-related portions are not classified at least seismic Category I or I(L), TVA must demonstrate adequate time for operator action in the event of rupture of the nonseismic piping. This concern is more critical (less time available) for the CC system because it is a closed loop system with a finite amount of water. FSAR Table 3.2-2a specifically identifies portions of the CC system inside the CDWE building as not being seismically qualified. However, the tables in FSAR Section 3.2.2, appear to address components only and are not clear on piping classification. The FSAR is also not clear on whether isolation of the nonsafety-related portions of these systems is required by analysis (part of design basis) or by procedure (not part of design basis) following an accident. I.e., if these portions were not isolated following an accident could the systems still perform their safety-related functions? This could be a significant issue (has been a significant issue in the past for Diablo, Zion and other PWRs) and needs to be clarified and addressed in the SER prior to licensing.

Pressure sensors as missile sources. TVA's Aug. 18, 1994 response still does not explain why the other RCS pressure instruments (or wells) cannot become missiles. We need justification for not including these as a potential missile source.

TAC M89217 & M89218
W. Lefave