April 10, 2002

MEMORANDUM TO: Thomas Koshy, Acting Chief, Section 2
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

FROM: L. Mark Padovan, Project Manager ***/RA/***
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

SUBJECT: WATTS BAR CONFERENCE CALL SUMMARY — REACTOR VESSEL HEAD INSPECTION HISTORY

The NRR staff (Kenneth Karwoski, Ronald Hernan) held a conference call with Tennessee Valley Authority (TVA) on March 28, 2002, to discuss Nuclear Energy Institute's (NEI's) classification of the reactor vessel head inspection history at Watts Bar. TVA participants included Paul Pace, Rebecca Mays, Frank Koontz, Charlie Allen, Dave Briggs, David Goetcheus, Terry Woods, and Terry Knuettel. NEI classified Watts Bar in the "other" category since the documentation regarding the condition of the head was not clear as discussed below.

Since initial operation in 1995, there have been three instances of minor leakage from above the reactor head at Watts Bar. Two leaks were observed following Cycle 1 operation in 1997. One leak observed during this outage was from a pinhole leak in a canopy seal weld on control rod drive mechanism nozzle G-15, which is about 7 inches from the periphery of the head. Borated reactor coolant had dripped down the nozzle during operation. The boron residue was removed and the leak repaired; however, the records are not clear on whether the insulation was removed and the head cleaned although the work package indicates the insulation was "replaced." Discussions with an individual involved indicate that the head was "bare" and there was no evidence of corrosion; however, this was not documented in 1997. The licensee believes the amount of boric acid spilled was minimal since the leak was near the support ring near the periphery of the head and there was no evidence of leakage outside the support ring (which is uninsulated). The other leak observed in 1997 outage was very small and did not result in boric acid reaching the insulation. The leak which is also located on a canopy seal weld, was repaired.

The third instance of leakage was found after Cycle 2 operation. This leak was also attributed to a canopy seal weld but the amount of leakage was much smaller as evidenced by no significant boric acid deposits on the nozzle or on the insulation. This leak was repaired. Watts Bar is considered a low susceptibility plant to nozzle cracking.

Following the call, the licensee reported that additional evidence from the 1997 outage shows that insulation around the penetration was removed and documented on an evaluation form. The evaluation form indicated no evidence of degradation. Based on this evidence, TVA no longer considers Watts Bar to be in the "other" category.

Docket No. 50-390

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