

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401  
500C Chestnut Street Tower II

MAR 21 1979

Harold R. Denton, Director  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

Dear Mr. Denton:

In the Matter of the Application of	)	Docket Nos.	STN 50-518
Tennessee Valley Authority.	)		STN 50-519
			STN 50-520
			STN 50-521
			STN 50-553
			STN 50-554
			STN 50-566
			STN 50-567

For piping to be embedded in concrete at TVA's Hartsville, Phipps Bend, and Yellow Creek Nuclear Plants, a conflict exists between ACI Standard 318-71 and mechanical piping codes, such as, ANSI B31.1, and ASME Section III. The conflict involves minimum test pressures and holding times for leak testing of piping to be embedded in concrete. A typical leak test requirement from ANSI B31.1 and ASME Section III requires a minimum test pressure of 1.5 times the design pressure to be maintained for a minimum of 10 minutes. However, ACI 318-71 Section 6.3.2.4 requires leak testing to be performed at a test pressure of 1.5 times the design pressure, with a minimum of 150 psig to be maintained for four hours.

TVA believes the leak test requirements, for pressure and time identified in the mechanical piping codes, are sufficiently conservative for leak testing of piping to be embedded in concrete. The leak test requirements specified in ACI-318 will be adopted where no piping code or standard applies. TVA PSAR's typically state, when referring to ACI-318 for construction of structures, that "modifications to these codes, standards, and specifications are made where necessary to meet the specific requirements of the structures." Also for additional consideration, we are providing the enclosure, a copy of a February 1, 1979, letter to the Secretary of the Commission from the ACI-349 Committee. This letter proposes a revision to ACI-349-76 which agrees with TVA's position on leak testing of piping to be embedded in concrete.

7903290009  
7903280370

Boo  
SE  
1/0

MAR 21 1979

Harold R. Denton

Accordingly, TVA plans to revise each PSAR for Hartsville, Phipps Bend, and Yellow Creek to utilize the appropriate mechanical piping code for leak testing of piping to be embedded in concrete. The revised information will be incorporated into the next PSAR amendment for each respective plant.

Very truly yours,

J. E. Gilleland  
Assistant Manager of Power