

February 10, 1984

Docket Nos. 50-259/260/296

Mr. Hugh G. Parris
Manager of Power
Tennessee Valley Authority
500A Chestnut Street, Tower II
Chattanooga, Tennessee 37401

Dear Mr. Parris:

SUBJECT: INSERVICE TESTING OF PUMPS AND VALVES

Re: Browns Ferry Nuclear Plant, Units 1, 2, and 3

Reference is made to your submittal of August 31, 1982 as supplemented by your letter of April 6, 1983. We have reviewed this information and conclude that we need the information identified in the enclosure to this letter in order to complete our review. We would appreciate a response within 45 days of receipt of this letter.

The reporting and/or recordkeeping requirements contained in this letter affect fewer than ten respondents; therefore, OMB clearance is not required under P. L. 96-511.

Sincerely,

Original Signed by /
Domenic B. Vassallo, Chief
Operating Reactors Branch #2
Division of Licensing

Enclosure:
As stated

cc w/enclosure:
See next page

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Mr. Hugh G. Parris
Tennessee Valley Authority
Browns-Ferry Nuclear Plant, Units 1, 2 and 3

cc:

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REQUEST FOR ADDITIONAL INFORMATION RELATED TO THE
BROWNS FERRY UNITS 1, 2, AND 3 PROGRAM FOR INSERVICE
TESTING (IST) OF PUMPS AND VALVES

1. The pump portion of the IST program was reviewed to verify that all pumps that are important to safety are included in the program and are subjected to the testing required by the ASME Code. In the staff's judgement there are additional systems wherein the associated pumps should be in the program. These systems are:
 - Plant Service Water
 - PSC Head Tank
 - Fuel Oil Transfer.

Please justify the omission of the pumps in these systems or revise the IST program to include them.

2. Likewise, in the staff's judgement the following valves should be in the IST program:
 - Combustible Gas Control System valves
 - Primary Containment Atmosphere valves
 - Fuel Oil Transfer System valves
 - Transverse In-Core Probe valves
 - Valves in the portions of the Instrument and Control Air System that perform a function important to safety
 - Valves in ventilating systems that perform a function important to safety
 - Sampling System valves
 - Torus Drain Valves
 - Drywell - Pressure Suppression Chamber (PSC) and PSC - Reactor Building vacuum breakers
 - SRV discharge line vacuum breakers (Valves 10-506, 507, 519, etc.)
 - Primary Containment H₂ and O₂ Analyzer valves
 - EECW valves for the Unit 1 and 2 Diesel Generator Engine Coolers
 - Diesel Generator Air Start valves
 - All relief valves important to safety except ADS valves (e.g., valves 75-543 A and B)
 - Keep-Fill valves in Core Spray System (e.g., valves 75-609 and -610)

Please provide technical justification for the omission of these valves or revise the IST program to include them.

If the licensee desires to request additional relief from the requirements of Section XI of the 80W80 ASME Code, the following information should be provided for each valve for which relief is requested:

- Valve number and brief description
- P&ID and coordinates
- Function
- Category (ASME Section XI)
- Normal position
- Relief requested and basis for request

3. You requested relief for all pumps from the requirements of paragraph IWP-3220 that all pump test data be analyzed within 96 hours after completion of the test. We agree that a delay of an additional day before pump test data is completely analyzed is not significant if there is no delay in performing preliminary reviews of test data (including vibration levels) immediately after the test, and any pumps whose measured test parameters fall within the Code "Required Action Range" are immediately declared inoperable upon completion of the preliminary reviews. Confirm that this is your intent.
4. You requested relief from paragraph IWV-3411 for valves 63-525 and 63-526 and propose to exercise these valves during refueling to verify that they will close. You must also verify that these valves will perform their safety-related function by passing design flow from the SLCS to the core. Please verify that this function will also be tested during refueling.
5. You requested relief from paragraph IWV-3411 for valves 74-661 and 74-662 and propose to exercise these valves at each refueling because such a test entails entry into containment. We approve this request with the condition that these valves also are tested during a cold shutdown whenever the containment is de-inerted. Please provide a commitment to perform tests during cold shutdown whenever possible (not to exceed three months frequency) or provide justification for not committing to this schedule.
6. From a review of your IST Program, the staff finds that you have elected to leak test pressure-isolation valves to verify integrity. It is the staff's position that, when leak-rate testing is used to verify the integrity of pressure isolation valves, the leakage limits selected must assure that valve sealing function has not excessively degraded. The staff does not consider relief valve capacity in setting pressure isolation valve leakage limits. The staff recommends a leakage limit for pressure isolation valves of 0.5 gpm per nominal inch of valve size with a maximum leakage rate of 5 gpm. State whether you comply with this position. If you do not comply state and justify your acceptance test limits.
7. Your IST program did not indicate performance of position indicator verifications as required by the Code. Please verify that you meet this Code requirement or justify your failure to do so.