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

July 6, 1988

Docket No. 50-259/260/296/50-327/328

Mr. S. A. White
Senior Vice President, Nuclear Group
Tennessee Valley Authority
6N 38A Lookout Street
1101 Market Street
Chattanooga, Tennessee 37402-2801

Dear Mr. White:

SUBJECT: GENERIC LETTER 87-06, PERIODIC VERIFICATION OF LEAK TIGHT INTERITY OF PIVs (TAC NOs. R0C379, R00380, R00181, R00182, RC0183)

In Generic Letter (GL) 87-06, Periodic Verification of Leak Tight Integrity of Pressure Isolation Valves (PIVs), dated March 13, 1987, the NRC requested information from operating reactor licensees concerning the methods used for testing PIVs in order to assure the integrity of the reactor coolant pressure boundary during plant operation. The Tennessee Valley Authority (TVA) responded for Browns Ferry Units 1, 2 and 3 and Sequoyah Units 1 and 2 in its letter dated June 19, 1987. The GL did not require any licensee action other than the submission of the requested information.

PIVs are defined for each interface as any two valves in series within the reactor coolant pressure boundary which separates the high pressure reactor coolant system from an attached low pressure system. There are essentially two types of PIVs. The first type are PIVs whose sizes are small or that are not connected to any accident mitigation systems. The second type are PIVs whose sizes are of some significance and are connected to an accident mitigation system.

One purpose of inservice testing (IST) is to ensure the leak tight integrity of certain PIVs whose failure may impair the plant's ability to shutdown the reactor or to mitigate an accident. The general requirements for leak testing of PIVs are established by 10 CFR Part 50, Appendix A, General Design Criteria (GDC) 14, 30 and 32, which establish that PIVs are ASME Section XI Category A valves (seat leakage important). For Category A valves, 10 CFR 50.55a(g) requires that seat leakage testing be conducted on such valves to meet the requirements of ASME Code, Section XI. However, the GDC and the regulations have been interpreted differently by industry and by the NRC. Consequently, PIV leak rate testing varies widely from licensee to licensee depending upon when the plant was licensed.

The Office of Research (RES), NRC, is presently working on two generic issues that involve PIVs, namely: Generic Issue II.E.6.1, In-situ Testing of Valves, and Generic Issue 105, Intersystem LOCA for LWRs. At the time of issuance, GL 87-06 was considered to be part of the resolution of these generic issues. RES intends to develop and seek approval for a generic letter that will

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state the staff's position on PIV testing and implementation; specifically the planned generic letter will address and may require written responses on:

- scope of PIV testings,
- leak rate criteria, and
- expanded periodic surveillance testing requirements to be covered in the IST program and plant Technical Specifications (TS).

In its responses to GL 87-06, for Browns Ferry, TVA stated that the 12 PIV's are tested once per refueling outage not to exceed two years between tests. The PIVs are in the plant ASME Section XI Pump and Valve Testing program. The loop pressure for the PIV's is also monitored on a daily basis.

For Sequoyah, TVA stated that the Sequoyah Units 1 and 2 TS require ASME Section XI IST for all the PIVs with the exception of two valves. These two are included in TVA's proposed TS change 87-35 which has been submitted to NRC and is under review. It further stated that the surveillance instruction for these two PIVs includes the requirement to test these valves. Thus, TVA has concluded that the PIVs necessary to ensure the integrity of the Sequoyah reactor coolant pressure boundary are subject to the appropriate surveillance testing.

Your response to GL 87-06 for Browns Ferry and Sequoyah Nuclear Plants is acceptable and this letter closes out the staff's action on GL 87-06. If you have any questions on this letter, please contact J. Donohew, Sequoyah Project Manager at (301) 492-0704, or G. Gears, Browns Ferry Project Manager at (301) 492-0767.

Sincerely,

Original Signed by

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Browns Ferry Nuclear Plant
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Sequoyah Nuclear Plant

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