NOTICE OF VIOLATION

Tennessee Valley Authority
Watts Bar Unit 1

Docket No. 50-390
License No. NPF-90
EA 96-280

During an NRC inspection conducted from June 30 through August 10, 1996, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," (NUREG-1600), the violations are listed below:

A. Technical Specification 5.7.1.1 requires that written procedures shall be established, implemented, and maintained for activities recommended in Appendix A of Regulatory Guide 1.33, Quality Assurance Program Requirements, Revision 2, February 1978. This includes procedures required for the performance and control of surveillance tests.

Watts Bar Technical Instruction (TI)-57.002, Verification of Normal Position for Nor-Aux Switches, Revision 4, Appendix A, requires verification that auxiliary control room switches and feeder breakers are positioned properly should they be required in an emergency.

Contrary to the above, as of July 17, 1996, the licensee had not properly verified that six auxiliary control room controllers were correctly positioned in accordance with TI-57.002. Specifically, residual heat removal heat exchanger A and B outlet flow controllers 1-HIC-74-16C and 1-HIC 74-28C were positioned to the full closed position although TI-57.002 required them to be full open. Four other controllers were positioned to slightly different settings than required by the surveillance.

This is a Severity Level IV violation (Supplement I).

B. Technical Specification 5.7.1.1 requires that written procedures shall be established, implemented, and maintained for activities recommended in Appendix A of Regulatory Guide 1.33, Quality Assurance Program Requirements, Revision 2, February 1978. This includes procedures required for alarm conditions and for the performance and control of surveillance tests.

Contrary to the above, the licensee failed to adequately establish procedures in the following two examples:

1. As of July 18, 1996, adequate procedures were not established for disposition and periodic review of plant computer alarms. Specifically, the temperature element in the auxiliary feedwater supply line to steam generator 1 was in an alarm status on the P2500 plant computer, reading 257°F with an alarm setpoint of 190°F. The alarm had been present since at least July 1, 1996,

but had not been dispositioned to verify system operability. Periodic reviews of alarming points that could have alerted the licensee to the alarm condition were not required to be taken.

2. As of July 19, 1996, Surveillance Instructions (SI) 1-SI-0-2A, Shift and Daily Surveillance Log, 1900 - 0700 Shift, Revision 0, and 1-SI-0-2B, Shift and Daily Surveillance Log, 0700 - 1900 Shift, Revision 0, did not verify bank overlap numerical criteria and were therefore not adequate to implement Technical Specification Surveillance Requirement 3.1.7.3 to verify control bank rod overlap requirements.

This is a Severity Level IV violation (Supplement I).

C. Technical Specification 5.7.1.1 requires that written procedures shall be established, implemented, and maintained for activities recommended in Appendix A of Regulatory Guide 1.33, Quality Assurance Program Requirements, Revision 2, February 1978. This includes procedures required for the safe performance and control of safety-related maintenance activities.

Modification/Addition Instruction (MAI)-4.7A, Hydro Testing of Pipe, Revision 12, Section 6.3.3 requires, in part, that the possibility of pressurization on systems and components adjacent to the hydrostatic test boundary be considered in the event of boundary valve leakage. Section A.3.3 of Attachment D, requires, in part, that to ensure required hydrostatic test pressure is not exceeded by more than six percent, a full capacity relief valve may be installed and preset. Section 6.1.F requires hydrostatic test pressures to be determined using the appropriate section of Attachment C. Attachment C, Hydro Test Parameters Calculation Sheet, requires the minimum test pressure to be the design pressure multiplied by a multiplier factor obtained from Site Standard Practice (SSP)-8.05.

SSP-8.05, ASME Section XI System Pressure Test Program, Revision 4, Appendix A, states, in part, that American Society of Mechanical Engineers (ASME) Code Class 3 components rated for less than 200°F are to be tested at 110 percent of system design pressure.

Contrary to the above, the licensee failed to adequately implement quality-related procedure MAI-4.7A while performing hydrostatic testing of ASME Code Class 3 auxiliary feedwater recirculation piping rated at 150°F in the following three examples:

1. On July 23, 1996, the possibility of pressurization to hydrostatic test pressure was not considered for the adjacent water solid leg of auxiliary feedwater (AFW) piping between the pressure control valve and level control valves. Specifically, pressure in this portion of the system was not being monitored and consideration of the effects on AFW operability had not been evaluated.

2. On July 24, 1996, the licensee failed to verify the capacity of an installed relief valve was adequate to relieve the full capacity of the hydrostatic test pump and ensure the required hydrostatic test pressure was not exceeded.

3. On July 23, 24, and 26, 1996, hydrostatic tests were performed at an inadequate test pressure of 2140 pounds per square inch gage (psig) and a range of 2100 to 2180 psig. The required minimum hydrostatic test pressure was 2173 psig which was 110 percent of the design pressure of 1975 psig.

This is a Severity Level IV violation (Supplement I).

D. Technical Specification 5.7.1.1 requires that written procedures shall be established, implemented, and maintained for activities recommended in Appendix A of Regulatory Guide 1.33, Quality Assurance Program Requirements, Revision 2, February 1978. This includes procedures for operations and maintenance of Emergency Core Cooling Systems.

Instrument Maintenance Instruction (IMI)-150, Essential Instrumentation Operability Verification, Revision 6, Attachment C, page 32, requires valve 1-ISIV-74-102D/H for flow switch 1-FIS-74-12 for the Residual Heat Removal system to be open.

Contrary to the above, valve 1-ISIV-74-102D/H was found closed on June 27, 1996, which rendered flow switch 1-FIS-74-12 inoperable.

This is a Severity Level IV violation (Supplement I).

E. Technical Specification 5.7.1.1 requires that written procedures shall be established, implemented, and maintained for activities recommended in Appendix A of Regulatory Guide 1.33, Quality Assurance Program Requirements, Revision 2, February 1978. This includes procedures required for the safe performance and control of safety-related maintenance activities.

Site Standard Practice (SSP)-7.58, Criteria for the Erection of Scaffolding/Temporary Work Platforms and Ladders Including Those in Seismically Qualified Structures, revision 1, Sections 2.1.A and Section 2.2.I state, in part, that scaffolding and their horizontal restraints erected in Category I structures such as the intake pumping station will have a minimum clearance of four inches from all fragile safety-related items which include valves, instrument lines, flexible conduit, and instruments. If these items penetrate the decking of the scaffolding, the clearance may be reduced to two inches if the scaffolding is restrained.

Contrary to the above, as of July 19, 1996, scaffolds erected above the essential raw cooling water (ERCW) strainers in accordance with scaffold permit numbers MMG960404, MMG960160, MMG950248, and MMG950247, did not meet the four and two-inch clearance requirements for fragile

safety-related items. The ERCW strainers are safety-related and located in the intake pumping station.

This is a Severity Level IV violation (Supplement I).

Pursuant to the provisions of 10 CFR 2.201, Tennessee Valley Authority is hereby required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555 with a copy to the Regional Administrator, Region II, and a copy to the NRC Resident Inspector at the facility that is the subject of this Notice, within 30 days of the date of the letter transmitting this Notice of Violation (Notice). This reply should be clearly marked "Reply to a Notice of Violation" and should include for each violation: (1) the reason for the violation, or, if contested, the basis for disputing the violation, (2) the corrective steps that have been taken and the results achieved, (3) the corrective steps that will be taken to avoid further violations, and (4) the date when full compliance will be achieved. Your response may reference or include previous docketed correspondence, if the correspondence adequately addresses the required response. If an adequate reply is not received within the time specified in this Notice, an order or a Demand for Information may be issued as to why the license should not be modified, suspended, or revoked, or why such other action as may be proper should not be taken. Where good cause is shown, consideration will be given to extending the response time.

Because your response will be placed in the NRC Public Document Room (PDR), to the extent possible, it should not include any personal privacy, proprietary, or safeguards information so that it can be placed in the PDR without redaction. However, if you find it necessary to include such information, you should clearly indicate the specific information that you desire not to be placed in the PDR, and provide the legal basis to support your request for withholding the information from the public.

Dated at Atlanta, Georgia
this 4th day of September 1996