TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401
400 Chestnut Street Tower II

June 11, 1982

Director of Nuclear Reactor Regulation
Attention: Ms. E. Adensam, Chief
Licensing Branch No. 4
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Dear Ms. Adensam:

| | | |
|---|---|---|
| In the Matter of the Application of | ) | Docket Nos. 50-390 |
| Tennessee Valley Authority | ) | 50-391 |

Enclosed are draft revisions to section 6.3.4.1 and table 14.2-3 of the Watts Bar Nuclear Plant (WBN) Final Safety Analysis Report (FSAR). These revisions reflect WBN compliance with Regulatory Guides 1.20 (Revision 2), 1.52 (Revision 2), and 1.79 (Revision 1). This information will be included in Amendment 48 of the FSAR.

If you have any questions concerning this matter, please get in touch with D. P. Ormsby at FTS 858-2682.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

L. M. Mills

L. M. Mills, Manager
Nuclear Licensing

Sworn to and subscribed before me
this 11th day of June 1982.

Paulette H. White

Notary Public
My Commission Expires 9-5-84

Enclosure
cc: U.S. Nuclear Regulatory Commission
Region II
Attn: Mr. James P. O'Reilly Administrator
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

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TABLE 14.2-3

CONFORMANCE OF PREOPERATIONAL TEST PROGRAM WITH REGULATORY GUIDES

| Regulatory Guide Number | Title | Section(s) Within Which Compliance Is Defined |
|---|---|---|
| 1.20 | Comprehensive Vibration Assessment Program for Reactor Internals During Preoperational and Initial Startup Testing ~~(6/75)~~ R2 (5/76) | Sections 3.9.2.3, 3.9.2.4, 3.9.2.5, and 3.9.2.6 |
| 1.41 | Preoperational Testing of Redundant Onsite Electric Power Systems to Verify Proper Load Group Assignments (3/16/73) | Section 8.1.5.3 |
| 1.52 | Design, Testing, and Maintenance Criteria for Post Accident Engineered-Safety-Feature Atmosphere Cleanup System Air Filtration and Adsorption Units of Light-Water-Cooled Nuclear Power Plants ~~(6/73)~~ R2(3/78) | Tables 6.5-1, 6.5-2, 6.5-3, and 6.5-4 |
| 1.68 | Preoperational and Initial Startup Test Programs for Water-Cooled Power Reactors (11/73) | Full Compliance |
| 1.79 | Preoperational Testing of Emergency Core-Cooling Systems for Pressurized Water Reactors ~~(6/74)~~ R1 (9/75) | Section 6.3.4.1 |
| 1.80 | Preoperational Testing of Instrument Air Systems (6/74) | Section 9.3.1.4 |

Full compliance for non-prototype reactor internals see

Added by Amendment 30

Therefore, the coolant entering the Reactor Coolant System piping is roughly twice that required by the decay heat mass boiloff, calculated with conservative assumptions.

It should be noted that the minimum time given above for diversion of RHR, low head flow to the containment spray system is consistent with the containment pressure analysis presented in Section 6.2.1.

### 6.3.4 Tests and Inspections

In order to demonstrate the readiness and operability of the emergency core cooling system, all of the components are subjected to periodic tests and insepctions. Performance tests of the components are performed in the manufacturer's shop. A comprehensive preoperational test program on the emergency core cooling system and its components is performed to provide assurance that the ECCS will accomplish its intended function when required.

#### 6.3.4.1 Preoperational Tests

Preoperational testing of each system and component of the emergency core cooling system is to be performed in compliance with the requirements of Regulatory Guide 1.79, 'Preoperational Testing of Emergency Core Cooling Systems for Pressurized Water Reactors,' with the exception of the following nonconformance items.

| Section | Description per Reg. Guide 1.79 | Comments | |
|---|---|---|---|
| C-1-b-(2) | 'The testing should include taking suction from the sump to verify vortex control and acceptable pressure drops across screening and suction lines and valves.' | The sump will be filled with water for an approximate 15 second test to verify a flow-path from the sump. Vortex control will be verified during scale model testing. | 44 29 |
| ~~C-1-c-(1)~~ | ~~'The accumulators will be discharged one at a time into the flooded reactor vessel by rapidly reducing RCS pressure . . . .'~~ | ~~The four accumulators will be discharged only into the open cold reactor vessel by opening the isolation valve. (The UHI test will have to be done with the head on the reactor vessel to check for vibration (cold)).~~ | 44 |

| | | |
|---|---|---|
| ~~C-1-c-(3)~~ | ~~Same as C-1-c-(1), but RCS is initially at normal operating pressure and temperature.~~ | ~~We will not discharge accumulators into a RCS at normal operating pressure and temperature.~~ 44 |

The preoperational test of the emergency core cooling systems and components is discussed in more detail in Chapter 14.

### 6.3.4.2 Component Testing

Routine periodic testing of the ECCS components and all necessary support systems is detailed in Chapter 16, Technical Specifications. Valves, which operate after a loss-of-coolant accident, are operated through a complete cycle where practical; and pumps are operated individually in this test on their 40 miniflow lines. If such testing indicates a need for corrective maintenance, the redundancy of equipment in these systems permits such maintenance to be performed without shutting down or reducing load under certain conditions. These conditions include considerations such as the period within which the component should be restored to service and the capability of the remaining equipment to provide the minimum required level of performance during such a period. The inservice component tests of ECCS pumps and valves conform to the extent practicable allowed by plant design to the guidelines of Sections IWV and IWP, Section XI, ASME Code, 1974 Edition.