Tennessee Valley Authority, 1101 Market Street, Chattanooga, Tennessee 37402

CNL-16-020

February 11, 2016

10 CFR 50.90
10 CFR 50.4

ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Watts Bar Nuclear Plant, Unit 2
Facility Operating License No. NPF-96
NRC Docket No. 50-391

Subject: **Exceptions to Completion of Preoperational Test Instructions Prior to Fuel Load - Revised Mode of Applicability for 2-PTI-002-01 and 2-PTI-003A-03**

Reference:
1. TVA Letter to NRC, CNL-15-222, "Exceptions to Completion of Preoperational Test Instructions Prior to Fuel Load," dated November 25, 2015
2. TVA Letter to NRC, CNL-15-257, "Exceptions to Completion of Preoperational Test Instructions Prior to Fuel Load - Revised Mode of Applicability for 2-PTI-002 and 2-PTI-003A-03," dated December 11, 2015 (ML15345A452)

In References 1 and 2, Tennessee Valley Authority (TVA) provided a list of Watts Bar Nuclear Plant (WBN), Unit 2 Preoperational Test Instructions (PTIs) to the Nuclear Regulatory Commission (NRC) that were to be completed after fuel load. The lists enclosed in the referenced letters included the technical justification and schedule, including the power level for completion of delayed testing, and was provided as required by WBN, Unit 2 Final Safety Analysis Report (FSAR), Section 14.2, "Test Program."

The power level for completion of 2-PTI-002-01, "Condensate System," and 2-PTI-003A-03, "Main Feedwater System Functional Test," was stated in Reference 1 as being "Prior to entering Mode 4." TVA has determined that the plant conditions required to be tested and verified for portions of these PTIs would be established during Mode 3.

The purpose of this letter is to revise the mode of applicability for completion of certain sections of 2-PTI-002-01 and 2-PTI-003A-03 from "Prior to entering Mode 4" to "Prior to entering Mode 2." The specific sections of each PTI, the technical justification and schedule, including the power level for completion of delayed testing are provided in the Enclosure to this letter.

The WBN Joint Test Group and Test Review Group have reviewed the technical justification for delaying test completion during Mode 5 and the justification has been approved by the WBN Plant Manager. This revision does not affect the commitment that TVA will complete the delayed preoperational test instructions listed in the Reference 1 letter prior to WBN Unit 2 initial criticality.

There are no new regulatory commitments contained in this submittal. Please contact Gordon Arent at (423) 365-2004 if there are questions regarding this submittal.

Respectfully,

J. W. Shea
Vice President, Nuclear Licensing

Enclosure:

Preoperational Test Instructions to be Completed after WBN Unit 2 Fuel Load

cc (Enclosure):

NRC Regional Administrator – Region II
NRC Project Manager – Watts Bar Nuclear Plant
NRC Senior Resident Inspector – Watts Bar Nuclear Plant, Unit 1
NRC Senior Resident Inspector – Watts Bar Nuclear Plant, Unit 2

ENCLOSURE
PREOPERATIONAL TEST INSTRUCTIONS TO BE COMPLETED
AFTER WBN UNIT 2 FUEL LOAD

Preoperational Test Instruction Number	PTI Step Number(s) and Description of Item(s) Being Deferred	Technical Justification for Delaying Test Until After Fuel Load	Schedule, including Power Level for Completion of Delayed Testing*
2-PTI-002-01 R0 Condensate System	Sections 6.1.15, 6.4.1, 6.6.3, and 6.7 Completion of remaining sections of the test and Joint Test Group review/approval of entire test package.	Currently, the following sections have testing remaining: • 6.1.15 - Verification of Alarm for 2-FCV-2-265 (Test Deficiency Notice (TDN) 15-2073) • 6.4.1 - 2A Cond Demin Pump logic test (TDN 15-2082 retest of annunciation on breaker overcurrent) • 6.6.3 - 2C Condensate Booster Pump Functional Test (mini-flow verification TDN 15-1883) • 6.7 - Condensate Demineralizer Full Flow Testing and Chemistry Verification (Full flow testing in 2D and 2E polishers remain) Delaying condensate preoperational test completion and results approval past Mode 3 entry will not challenge plant operations up to that point. Prior to Mode 3, condensate will typically be placed in-service for long cycle clean up. The completed portions of 2-PTI-002-01 have proven condensate is functional to the extent needed for long cycle cleanup. Further, the untested portions, provide no challenge to using condensate for cleanup. In addition, there are no specific Technical Specification surveillance requirements for the condensate system. Deferment will not adversely affect fuel loading operations or cause features that have not been tested to be relied upon for safe plant operation.	Prior to entering Mode 2

* All testing described in this Enclosure will be completed prior to intial criticality, thus at a power level of 0%.

ENCLOSURE
PREOPERATIONAL TEST INSTRUCTIONS TO BE COMPLETED
AFTER WBN UNIT 2 FUEL LOAD

Preoperational Test Instruction Number	PTI Step Number(s) and Description of Item(s) Being Deferred	Technical Justification for Delaying Test Until After Fuel Load	Schedule, including Power Level for Completion of Delayed Testing*
2-PTI-003A-03 R1 Main Feedwater System Functional Test	Portions of Sections 6.23, and 6.27 and all of Sections 6.24, 6.25, 6.31, and 6.34 Completion of remaining sections of the test and JTG review of entire test package.	Currently, the following sections have testing remaining: • 6.23 - Main Feedwater Pump Turbine 2A Auxiliary Equipment Functional Test - Misc alarm/indication verifications and SSPS trip verification retests remain (approximately 90% of section is complete) • 6.24 - Injection water 2A Control Logic - entire section • 6.25 - Injection water 28 Control Logic - entire section • 6.27 - Main Feedwater Pump Turbine 28 Auxiliary Equipment Functional Test- Misc alarm/indication verifications retests (approximately 95% of section is complete) • 6.31 - Injection Water Pumps 2A and 28 Operation - entire Section. • 6.34 - Main Feedwater Pump (MFP) 2A Coupled Operation - entire Section The original Mode 6 deferral provided in Reference 1 of the cover letter also listed Sections 6.3, 6.5, 6.26 and 6.28. These were completed prior to Mode 6 entry. The untested portions of Main Feedwater tested in 2-PTI-003A-03 (MFPT controls, MFPT performance), are not relied upon for plant operation prior to Mode 2 entry. Delaying this preoperational test completion and results approval past Mode 6 entry will not challenge plant operations. In addition, there are no specific Technical Specification surveillance requirements for this untested portion of the Main Feedwater system. Deferment will not adversely affect fuel loading operations or cause features that have not been tested to be relied upon for safe plant operation.	Prior to entering Mode 2

* All testing described in this Enclosure will be completed prior to intial criticality, thus at a power level of 0%.