

January 20, 2010

Mr. R. M. Krich  
Vice President, Nuclear Licensing  
Tennessee Valley Authority  
3R Lookout Place  
1101 Market Street  
Chattanooga, TN 37402-2801

SUBJECT: WATTS BAR NUCLEAR PLANT, UNIT 1 - ISSUANCE OF AMENDMENT  
REGARDING ADOPTION OF TSTF-511, REVISION 0, "ELIMINATE WORKING  
HOUR RESTRICTIONS FROM TS 5.2.2 TO SUPPORT COMPLIANCE WITH  
10 CFR PART 26" (TAC NO. ME2441)

Dear Mr. Krich:

The U.S. Nuclear Regulatory Commission (NRC) has issued the enclosed Amendment No. 83 to Facility Operating License No. NPF-90 for Watts Bar Nuclear Plant, Unit 1. The amendment consists of changes to the Technical Specifications (TSs) in response to your application dated October 20, 2009.

The amendment revises TS 5.2.2, "Unit Staff," to eliminate working hour restrictions in paragraph d to support compliance with the revisions to Title 10 of the *Code of Federal Regulations* (10 CFR), Part 26, "Fitness for Duty Programs." The changes are consistent with guidance contained in the NRC-approved Technical Specifications Task Force (TSTF) change traveler, TSTF-511, Revision 0, "Eliminate Working Hour Restrictions from TS 5.2.2 to Support Compliance with 10 CFR Part 26." The availability of this improvement was announced in the *Federal Register* on December 30, 2008 (73 FR 79923), as part of the consolidated line item improvement process.

R. M. Krich

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A copy of our related Safety Evaluation is also enclosed. The Notice of Issuance will be included in the Commission's next biweekly *Federal Register* notice.

Sincerely,

**/RA/**

John G. Lamb, Senior Project Manager  
Watts Bar Special Projects Branch  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-390

Enclosures:

1. Amendment No. 83 to NPF-90
2. Safety Evaluation

cc w/encls: Distribution via Listserv

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- 2 -

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**ADAMS Accession No. ML093020510**

OFFICE	NRR/LPWB/PM	NRR/LPWB/LA	DIRS/ITSB/BC	OGC – not required	NRR/LPWB/BC
NAME	JLamb	BClayton	RElliott	EWilliamson	LRaghavan/PMilano for
DATE	10 / 30 /09	10 / 30 /09	11 / 02 /09	-----	01 / 20 /10

**OFFICIAL AGENCY RECORD**

TENNESSEE VALLEY AUTHORITY

DOCKET NO. 50-390

WATTS BAR NUCLEAR PLANT, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No.83  
License No. NPF-90

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by the Tennessee Valley Authority (the licensee) dated October 20, 2009, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in Title 10 *Code of Federal Regulations* (10 CFR) Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-90 is hereby amended to read as follows:

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 83, and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated into this license. TVA shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of the date of its issuance, and shall be implemented within 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

**/RA PMilano for/**

L. Raghavan, Branch Chief  
Watts Bar Special Projects Branch  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to License No. NPF-90  
and the Technical Specifications

Date of Issuance: January 20, 2010

ATTACHMENT TO LICENSE AMENDMENT NO.83

FACILITY OPERATING LICENSE NO. NPF-90

DOCKET NO. 50-390

Replace page 3 of Operating License No. NPF-90 with the attached page 3.

Replace the following page of the Appendix A Technical Specifications with the attached revised page. The revised page is identified by amendment number and contains a marginal line indicating the area of change.

REMOVE

5.0-3

INSERT

5.0-3

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 83 TO FACILITY OPERATING LICENSE NO. NPF-90

TENNESSEE VALLEY AUTHORITY  
WATTS BAR NUCLEAR PLANT, UNIT 1  
DOCKET NO. 50-390

1.0 INTRODUCTION

By application dated October 20, 2009 (Agencywide Documents Access and Management System Accession No. ML092950340), Tennessee Valley Authority (TVA, the licensee) requested changes to the Technical Specifications (TSs) for the Watts Bar Nuclear Plant (WBN), Unit 1. The proposed changes would delete paragraph d of TS 5.2.2, "Unit Staff," to eliminate working hour restrictions in the TSs, as similar requirements are sufficiently imposed by Title 10 of the *Code of Federal Regulations* (10 CFR), Part 26, Subpart I.

The licensee stated that the application is consistent with the U.S. Nuclear Regulatory Commission (NRC)-approved Technical Specification Task Force (TSTF) change traveler, TSTF-511, Revision 0, "Eliminate Working Hour Restrictions from TS 5.2.2 to Support Compliance with 10 CFR Part 26." The availability of this TS improvement was announced in the *Federal Register* on December 30, 2008 (73 FR 79923), as part of the consolidated line item improvement process.

2.0 REGULATORY EVALUATION

The history of NRC regulations pertaining to prevention of worker impairment is summarized in the *Federal Register* notice containing the final rule that amended 10 CFR Part 26 (73 FR 16966, March 31, 2008). Subpart I, "Managing Fatigue," of 10 CFR Part 26 provides the regulatory requirements for managing worker fatigue at nuclear power plants.

The NRC's regulatory requirements related to the content of the TSs are contained in 10 CFR Section 50.36, "Technical specifications." The regulations in 10 CFR 50.36 require that the TSs include items in the following categories: (1) safety limits, limiting safety systems settings, and limiting control settings; (2) limiting conditions for operation; (3) surveillance requirements; (4) design features; and (5) administrative controls. The administrative controls are the provisions relating to organization and management, procedures, recordkeeping, review and audit, and reporting necessary to assure operation of the facility in a safe manner.

The NRC's guidance for the format and content of the licensee's TSs can be found in NUREG-1431, Revision 3, "Standard Technical Specifications – Westinghouse Plants," referred to as the STSs. TS 5.0 of the STSs contains administrative controls. Paragraph d of TS 5.2.2 of the STSs contains requirements for administrative procedures to limit the working hours of personnel who perform safety-related functions. This paragraph represents NRC's guidance on how licensees' TS requirements should address work-hour controls. Licensees adhere to the guidance to varying degrees due to minor administrative differences and differences in each licensee's current licensing basis. The inconsistent level of adherence to NRC guidance has led to inconsistent TS interpretation and implementation. This has also made it difficult for NRC to enforce the requirements.

The new requirements of 10 CFR Part 26, Subpart I supersede TS requirements for limiting the working hours of personnel as described in paragraph d of Section 5.2.2 of the STSs. Subpart I distinguishes between work-hour controls and fatigue management and strengthens the requirements for both. Subpart I requires nuclear power plant licensees to ensure against worker fatigue adversely affecting public health and safety and the common defense and security by establishing clear and enforceable requirements for the management of worker fatigue. Licensees are required to implement Subpart I by October 1, 2009, as announced in the final rule that revised 10 CFR Part 26 (73 FR 16966, March 31, 2008). TSTF-511, Revision 0, proposed a change to STSs that would delete paragraph d of STS 5.2.2. This change was approved in a *Federal Register* notice on December 30, 2008 (73 FR 79923).

### 2.1 Adoption of TSTF-511, Revision 0, by WBN Unit 1

Proper adoption of TSTF-511 and implementation of 10 CFR Part 26, Subpart I by TVA will provide reasonable assurance that TVA will maintain limits on the working hours of personnel who perform safety-related functions at WBN Unit 1. TVA stated the following:

TVA implemented 10 CFR Part 26 requirements for working hour restrictions on October 1, 2009. The 10 CFR Part 26 requirements are more restrictive than the current TS requirements and as such does not require a commitment. TVA will implement the proposed TS changes within 30 days after approval is received. This does represent a deviation from the consolidated line item improvement process (CLIP). However, this will have no impact on the NRC staff's model safety evaluation (SE) published on December 30, 2008 (73 FR 79923).

### 3.0 TECHNICAL EVALUATION

Controls on work hours for personnel at nuclear power plants are necessary to prevent worker fatigue from adversely affecting public health and safety and the common defense and security. Work-hour controls for WBN Unit 1 are currently located in paragraph d of TS 5.2.2. When the TS change is implemented, the regulatory requirements of 10 CFR 26, Subpart I will effectively replace the plant-specific TS requirements currently found in WBN Unit 1 TS 5.2.2, paragraph d.

The licensee proposed deleting paragraph d of TS 5.2.2. Since the new requirements of 10 CFR Part 26, Subpart I took effect on October 1, 2009, TVA must follow its requirements on work-hour controls.



The NRC staff evaluated the licensee's proposed change against the applicable regulatory requirements listed in Section 2.0 of this safety evaluation. The staff also compared the proposed change to the change made to STSs by TSTF-511, Revision 0. There is reasonable assurance that the licensee will comply with the regulations for work-hour controls through the requirements of 10 CFR Part 26, Subpart I, at all times at WBN Unit 1. TVA must comply with both the WBN Unit 1 TSs and the regulations in 10 CFR Part 26, until the TS change is implemented. Therefore, the licensee will continue to prevent worker fatigue from adversely affecting public health and safety and the common defense and security. Therefore, the NRC staff concludes that the proposed change is acceptable.

#### 4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Tennessee State official was notified of the proposed issuance of the amendments. The State official had no comments.

#### 5.0 ENVIRONMENTAL CONSIDERATION

The amendment changes recordkeeping, reporting, or administrative procedures. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding (74 FR 59264, November 17, 2009). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(10). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

#### 6.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: V. Cusumano

Date: January 20, 2010