



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**  
WASHINGTON, D.C. 20555-0001

April 7, 2014

Mr. Joseph W. Shea  
Vice President, Nuclear Licensing  
Tennessee Valley Authority  
1101 Market Street, LP 3D-C  
Chattanooga, TN 37402-2801

**SUBJECT: WATTS BAR NUCLEAR PLANT, UNIT 1 - ISSUANCE OF AMENDMENT TO  
MODIFY ADMINISTRATIVE CONTROLS SECTIONS OF TECHNICAL  
SPECIFICATION BY ADOPTING TSTF-348 (TAC NO. MF1461)**

Dear Mr. Shea:

The U.S. Nuclear Regulatory Commission (NRC) has issued the enclosed Amendment No. 96 to Facility Operating License No. NPF-90 for Watts Bar Nuclear Plant, Unit 1. This amendment consists of changes to the license and the Technical Specifications (TSs) in response to your application dated April 12, 2013.

The proposed amendment will modify Technical Specification (TS) 5.9.2, "Annual Radiological Environmental Operating Report." The proposed change is consistent with NRC-approved Technical Specification Task Force (TSTF) Standard Technical Specification (STS) Change Traveler, TSTF-348, "Cancellation of NRC Environmental Monitoring Program with States."

In addition, the proposed amendment will modify TS 5.9.8, "PAMS [Post Accident Monitoring System] Report." These editorial changes update the TSs to remove an obsolete Thermoluminescent Dosimeter requirement, and correct enumeration as a result of a previous license amendment.

J. Shea

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

Sincerely,

A handwritten signature in black ink, appearing to read 'Hon', with a stylized flourish extending to the right.

Andrew Hon, Project Manager  
Plant Licensing Branch II-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-390

Enclosures:

1. Amendment No. 96 to NPF-90
2. Safety Evaluation

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

TENNESSEE VALLEY AUTHORITY

DOCKET NO. 50-390

WATTS BAR NUCLEAR PLANT, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 96  
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 April 12, 2013, 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 of the *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.

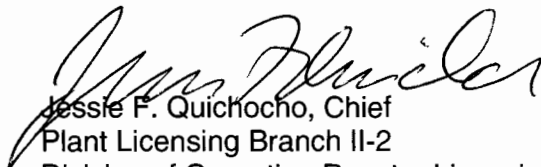
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-90 is hereby amended to read as follows:

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A as revised through Amendment No. 96 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 no later than 30 days from the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

  
Jesse F. Quichocho, Chief  
Plant Licensing Branch II-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Operating License  
and the Technical Specifications

Date of Issuance: April 7, 2014

ATTACHMENT TO LICENSE AMENDMENT NO. 96

FACILITY OPERATING LICENSE NO. NPF-90

DOCKET NO. 50-390

Replace Page 3 of Operating License NPF-90 with the attached Page 3.

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

REMOVE

5.0-27  
5.0-32

INSERT

5.0-27  
5.0-32

- (4) TVA, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use in amounts as required, any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis, instrument calibration, or other activity associated with radioactive apparatus or components; and
  - (5) TVA, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.
- C. This license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect, and is subject to the additional conditions specified or incorporated below.
  - (1) Maximum Power Level

TVA is authorized to operate the facility at reactor core power levels not in excess of 3459 megawatts thermal.
  - (2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A as revised through Amendment No. 96 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) Safety Parameter Display System (SPDS) (Section 18.2 of SER Supplements 5 and 15)

Prior to startup following the first refueling outage, TVA shall accomplish the necessary activities, provide acceptable responses, and implement all proposed corrective actions related to having the Watts Bar Unit 1 SPDS operational.
  - (4) Vehicle Bomb Control Program (Section 13.6.9 of SSER 20)

During the period of the exemption granted in paragraph 2.D.(3) of this license, in implementing the power ascension phase of the approved initial test program, TVA shall not exceed 50% power until the requirements of 10 CFR 73.55(c)(7) and (8) are fully implemented. TVA shall submit a letter under oath or affirmation when the requirements of 73.55(c)(7) and (8) have been fully implemented.

5.0 ADMINISTRATIVE CONTROLS

5.9 Reporting Requirements

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The following reports shall be submitted in accordance with 10 CFR 50.4.

5.9.1 DELETED

5.9.2 Annual Radiological Environmental Operating Report

-----NOTE-----

A single submittal may be made for a multiple unit station. The submittal should combine sections common to all units at the station.

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The Annual Radiological Environmental Operating Report covering the operation of the unit during the previous calendar year shall be submitted by May 15 of each year. The report shall include summaries, interpretations, and analyses of trends of the results of the Radiological Environmental Monitoring Program for the reporting period. The material provided shall be consistent with the objectives outlined in the Offsite Dose Calculation Manual (ODCM), and in 10 CFR 50, Appendix I, Sections IV.B.2, IV.B.3, and IV.C.

The Annual Radiological Environmental Operating Report shall include the results of analyses of all radiological environmental samples and of all environmental radiation measurements taken during the period pursuant to the locations specified in the table and figures in the ODCM, as well as summarized and tabulated results of these analyses and measurements in the format of the table in the Radiological Assessment Branch Technical Position, Revision 1, November 1979. In the event that some individual results are not available for inclusion with the report, the report shall be submitted noting and explaining the reasons for the missing results. The missing data shall be submitted in a supplementary report as soon as possible.

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(continued)

## 5.9 Reporting Requirements (continued)

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### 5.9.7 EDG Failures Report

If an individual emergency diesel generator (EDG) experiences four or more valid failures in the last 25 demands, these failures and any nonvalid failures experienced by that EDG in that time period shall be reported within 30 days. Reports on EDG failures shall include the information recommended in Regulatory Guide 1.9, Revision 3, Regulatory Position C.4, or existing Regulatory Guide 1.108 reporting requirement.

### 5.9.8 PAMS Report

When a Report is required by Condition B or F of LCO 3.3.3, "Post Accident Monitoring (PAM) Instrumentation," a report shall be submitted within the following 14 days. The report shall outline the preplanned alternate method of monitoring, the cause of the inoperability, and the plans and schedule for restoring the instrumentation channels of the Function to OPERABLE status.

### 5.9.9 Steam Generator Tube Inspection Report

A report shall be submitted within 180 days after the initial entry into MODE 4 following completion of an inspection performed in accordance with the Specification 5.7.2.12, Steam Generator (SG) Program. The report shall include:

- a. The scope of inspections performed on each SG,
  - b. Active degradation mechanisms found,
  - c. Nondestructive examination techniques utilized for each degradation mechanism,
  - d. Location, orientation (if linear), and measured sizes (if available) of service induced indications,
  - e. Number of tubes plugged during the inspection outage for each active degradation mechanism,
  - f. Total number and percentage of tubes plugged to date,
  - g. The results of condition monitoring, including the results of tube pulls and in-situ testing, and
  - h. The effective plugging percentage for all plugging in each SG.
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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 96 TO FACILITY OPERATING LICENSE NO. NPF-90

TENNESSEE VALLEY AUTHORITY  
WATTS BAR NUCLEAR PLANT, UNIT 1

DOCKET NO. 50-390

1.0 INTRODUCTION

By letter dated April 12, 2013 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML13106A146), Tennessee Valley Authority (the licensee) proposed changes to the Technical Specifications (TSs) for Watts Bar Unit 1 (WBN1). The proposed editorial changes revise TS 5.9.2, "Annual Radiological Environmental Operating Report," and TS 5.9.8, "PAMS [Post Accident Monitoring System] Report."

The licensee stated that the proposed change to TS 5.9.2 is consistent with U.S. Nuclear Regulatory Commission (NRC)-approved Technical Specification Task Force (TSTF) Standard Technical Specification (STS) Change Traveler, TSTF-348, "Cancellation of NRC Environmental Monitoring Program with States" (ADAMS No. ML040630068). TSTF-348 removes an obsolete Thermoluminescent Dosimeter (TLD) TS requirement. The change to TS 5.9.8 is necessary to correct enumeration as a result of a previous license amendment.

2.0 REGULATORY EVALUATION

The NRC's regulatory requirements related to the content of the TSs are contained in Title 10, *Code of Federal Regulations* (10 CFR), Part 50, Section 50.36, "Technical specifications." The TS requirements in 10 CFR 50.36 include the following categories: (1) safety limits, limiting safety systems settings and control settings, (2) Limiting Conditions for Operation (LCO), (3) Surveillance Requirements (SRs), (4) design features, and (5) administrative controls. 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.

3.0 TECHNICAL EVALUATION

3.1 TS 5.9.2, "Annual Radiological Environmental Operating Report"

The licensee proposed to delete the following sentence, currently in the last paragraph of Specification 5.9.2:

Enclosure

"The report shall identify the TLD results that represent collocated dosimeters in relation to the NRC TLD program and the exposure period associated with each result."

In Press Release No. 98-08, dated January 13, 1998 (ADAMS No. ML003708685), the NRC announced that it had ended its contract with 34 states to perform radiation monitoring around certain facilities as of the end of 1997. As a result, TSTF-348 revised STS 5.6.2, "Annual Radiological Environmental Operating Report," to delete reference to collocated dosimeters to reflect cancellation of the NRC environmental monitoring program with States. The licensee proposed to adopt this TSTF change without deviation in corresponding WBN1 TS 5.9.2. The proposed change removes an obsolete reporting requirement and is, therefore, corrective or editorial in nature. The staff finds this change acceptable.

### 3.2 TS 5.9.8, "PAMS Report"

The first sentence of WBN1 TS 5.9.8 currently states:

"When a Report is required by Condition B or G of LCO 3.3.3, Post Accident Monitoring (PAM) Instrumentation, a report shall be submitted within the following 14 days."

The proposed change states:

"When a Report is required by Condition B or F of LCO 3.3.3, Post Accident Monitoring (PAM) Instrumentation, a report shall be submitted within the following 14 days."

The proposed change corrects a cross-reference error introduced with the implementation of WBN1 License Amendment 72, issued December 23, 2008 (ADAMS No. ML082970645). Deletion of TS 3.3.3, Condition D resulted in Conditions E, F, and G being changed to Conditions D, E, and F, respectively. However, the impact of the December 23, 2008, change on TS 5.9.8 reference was not previously identified. The NRC staff finds that the re-lettering change is editorial and clarifying in nature and is consistent with the current intent of the TS requirement. Therefore, the NRC staff finds this corrective change 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 relates to changes in recordkeeping, reporting, or administrative procedures or requirements. Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(10)(ii) and (v). 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, there is reasonable assurance that: (1) the health and safety of the public will not be endangered by operation in the proposed manner, (2) that 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.

Contributors: K. Hemphill

Date: April 7, 2014

J. Shea

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

Sincerely,

**/RA/**

Andrew Hon, Project Manager  
Plant Licensing Branch II-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-390

Enclosures:

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**ADAMS Accession No.: ML14071A339 \*by memo ML14059A324**

OFFICE	NRR/LPL2-2/PM	NRR/LPL2-2/LA	NRR/STSB/BC*
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