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

November 5, 2010

Vice President, Operations
Arkansas Nuclear One
Entergy Operations, Inc.
1448 S.R. 333
Russellville, AR 72802

SUBJECT: ARKANSAS NUCLEAR ONE, UNIT NO. 2 - ISSUANCE OF AMENDMENT RE: MODIFICATIONS TO TECHNICAL SPECIFICATIONS TO REFLECT ADOPTION OF TECHNICAL SPECIFICATION TASK FORCE (TSTF) CHANGE TRAVELERS TSTF-479-A AND TSTF-497-A (TAC NO. ME4118)

Dear Sir or Madam:

The Nuclear Regulatory Commission (NRC) has issued the enclosed Amendment No. 291 to Renewed Facility Operating License No. NPF-6 for Arkansas Nuclear One, Unit No. 2. The amendment consists of changes to the Technical Specifications (TSs) in response to your application dated June 23, 2010.

The amendment revises the Administrative Controls TS 6.5.8, "Inservice Testing Program," for consistency with the requirements of paragraph 50.55a(f)(4) of Title 10 of the *Code of Federal Regulations* (10 CFR), for pumps and valves which are classified as American Society of Mechanical Engineers (ASME) Code Class 1, 2, and 3. These changes are in accordance with the changes in NRC-approved Technical Specification Task Force (TSTF) Change Traveler TSTF-479-A, "Changes to Reflect Revision of 10 CFR 50.55a," and TSTF-497-A, "Limit Inservice Testing Program SR [Surveillance Requirement] 3.0.2 Application to Frequencies of 2 Years or Less."

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,

Balwant K Singal for

N. Kaly Kalyanam, Project Manager
Plant Licensing Branch IV
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-368

Enclosures:
1. Amendment No. 291 to NPF-6
2. Safety Evaluation

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

ENTERGY OPERATIONS, INC.

DOCKET NO. 50-368

ARKANSAS NUCLEAR ONE, UNIT NO. 2

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 291
Renewed License No. NPF-6

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Entergy Operations, Inc. (the licensee), dated June 23, 2010, 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 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 license 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 Renewed Facility Operating License No. NPF-6 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 291, are hereby incorporated in the renewed license. The licensee shall operate the facility in accordance with the Technical Specifications

3. The license amendment is effective as of its date of issuance and shall be implemented within 90 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Michael T. Markley, Chief
Plant Licensing Branch IV
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Renewed Facility
Operating License No. NPF-6
Technical Specifications

Date of Issuance: November 5, 2010

ATTACHMENT TO LICENSE AMENDMENT NO. 291

RENEWED FACILITY OPERATING LICENSE NO. NPF-6

DOCKET NO. 50-368

Replace the following pages of the Renewed Facility Operating License No. NPF-6 and Appendix A Technical Specifications with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Operating License

| REMOVE | INSERT |
|---|---|
| -3- | -3- |

Technical Specifications

| REMOVE | INSERT |
|---|---|
| 6-7 | 6-7 |

(4) EOI, pursuant to the Act and 10 CFR Parts 30, 40 and 70 to receive, possess and use at any time any byproduct, source and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;

(5) EOI, 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 or instrument calibration or associated with radioactive apparatus or components; and

(6) EOI, pursuant to the Act and 10 CFR Parts 30 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 renewed license shall be deemed to contain and is subject to conditions specified in the following Commission regulations in 10 CFR Chapter 1; Part 20, Section 30.34 of Part 30, Section 40.41 of Part 40, Sections 50.54 and 50.59 of Part 50, and Section 70.32 of Part 70; 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

EOI is authorized to operate the facility at steady state reactor core power levels not in excess of 3026 megawatts thermal. Prior to attaining this power level EOI shall comply with the conditions in Paragraph 2.C.(3).

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 291 are hereby incorporated in the renewed license. The licensee shall operate the facility in accordance with the Technical Specifications.

Exemptive 2nd paragraph of 2.C.2 deleted per Amendment 20, 3/3/81.

(3) Additional Conditions

The matters specified in the following conditions shall be completed to the satisfaction of the Commission within the stated time periods following issuance of the renewed license or within the operational restrictions indicated. The removal of these conditions shall be made by an amendment to the renewed license supported by a favorable evaluation by the Commission.

2.C.(3)(a) Deleted per Amendment 24, 6/19/81.

6.5.7 Reactor Coolant Pump Flywheel Inspection Program

This program shall provide for the inspection of each reactor coolant pump flywheel per the recommendation of Regulatory Position C.4.b of Regulatory Guide 1.14, Revision 1, August 1975. The volumetric examination per Regulatory Position C.4.b.1 will be performed on approximately 10-year intervals.

6.5.8 Inservice Testing Program

This program provides controls for inservice testing of ASME Code Class 1, 2, and 3 components. The program shall include the following:

a. Testing frequencies applicable to the ASME Code for Operation and Maintenance (OM) of Nuclear Power Plants and applicable Addenda as follows:

| ASME OM Code terminology for inservice testing activities | Required frequencies for performing inservice testing activities |
|---|---|
| Weekly | At least once per 7 days |
| Monthly | At least once per 31 days |
| Every 6 weeks | At least once per 42 days |
| Quarterly or every 3 months | At least once per 92 days |
| Semiannually or every 6 months | At least once per 184 days |
| Every 9 months | At least once per 276 days |
| Yearly or annually | At least once per 366 days |
| Biennially or every 2 years | At least once per 731 days |

b. The provisions of Specification 4.0.2 are applicable to the above required frequencies and to other normal and accelerated frequencies specified as 2 years or less in the Inservice Testing Program for performing inservice testing activities.

c. The provisions of Specification 4.0.3 are applicable to inservice testing activities, and

d. Nothing in the ASME OM Code shall be construed to supersede the requirements of any Technical Specification.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 291 TO

RENEWED FACILITY OPERATING LICENSE NO. NPF-6

ENTERGY OPERATIONS, INC.

ARKANSAS NUCLEAR ONE, UNIT NO. 2

DOCKET NO. 50-368

## 1.0 INTRODUCTION

By letter dated June 23, 2010 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML101740577), Entergy Operations, Inc. (Entergy, the licensee), submitted a license amendment request (LAR) to modify the Technical Specifications (TSs) for Arkansas Nuclear One, Unit 2 (ANO-2), to incorporate Technical Specification Task Force (TSTF) change travelers TSTF-479-A and TSTF-497-A.

Specifically, the amendment modifies TS 6.5.8, "Inservice Testing Program," and revises:

- TS 6.5.8.a, which replaces references to Section XI of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code with references to the ASME Code for Operation and Maintenance of Nuclear Power Plants (ASME OM Code);
- TS 6.5.8.b, which restricts extension of testing frequencies to those frequencies specified as 2 years or less; and
- TS 6.5.8.d, which replaces references to the ASME Boiler and Pressure Vessel Code with references to the ASME OM Code.

These changes are in accordance with the changes in U.S. Nuclear Regulatory Commission (NRC)-approved TSTF-479-A, "Changes to Reflect Revision of 10 CFR 50.55a," and TSTF-497-A, "Limit Inservice Testing Program SR [Surveillance Requirement] 3.0.2 Application to Frequencies of 2 Years or Less."

## 2.0 REGULATORY EVALUATION

The regulations in Section 50.55a, "Codes and standards," of Title 10 of the *Code of Federal Regulations* (10 CFR) define the requirements for applying industry codes to each licensed nuclear powered facility. Licensees are required by 10 CFR 50.55a(f)(4)(i) to prepare programs to perform inservice testing (IST) of certain ASME Code Class 1, 2, and 3 pumps and valves during the initial 120-month interval. The regulations require that programs be developed using the latest edition and addenda incorporated into paragraph (b) of 10 CFR 50.55a on the date 12 months prior to the date of issuance of the operating license subject to the limitations and modification identified in paragraph (b). Paragraph 50.55a(f)(4)(ii) also requires that the inservice testing programs be updated during successive 120-month intervals to comply with the latest edition and addenda of the ASME Code incorporated by reference into 10 CFR 50.55a(b).

The proposed changes in the LAR to replace references to Section XI of the ASME Boiler and Pressure Vessel Code with updated references to the ASME OM Code in TS 6.5.8, "Inservice Testing Program," are in accordance with 10 CFR 50.55a.

In accordance with 10 CFR 50.36(c)(3), surveillance requirements (SRs) are "requirements relating to test, calibration, or inspection to assure that the necessary quality of systems and components is maintained, that facility operation will be within safety limits, and that the limiting conditions for operation will be met." The LAR proposes to limit the TS 6.5.8, "Inservice Testing Program," SR 4.0.2 (equivalent Standard Technical Specification (STS) SR 3.0.2) application to testing frequencies of 2 years or less. As discussed in Section 3.0 below, the proposed changes will continue to assure that SRs will maintain the necessary quality of systems and components so that facility operation will be within safety limits, and that the limiting conditions for operation will be met. Therefore, the proposed change continues to satisfy 10 CFR 50.36(c)(3).

## 3.0 TECHNICAL EVALUATION

As stated in Section 2.0 above, 10 CFR 50.55a(f)(4)(ii) requires licensees to update their IST programs to the latest edition of the ASME OM Code. The licensee's revision of TS 6.5.8, "Inservice Testing Program," parts a and d, is administrative in nature in that the TSs are updated to incorporate the latest edition of the ASME OM Code, as required by 10 CFR 50.55a. The proposed change to update the IST program to the latest edition of the ASME OM Code is consistent with TSTF-479-A, Revision 0, "Changes to Reflect Revision of 10 CFR 50.55a."

TS 6.5.8.a currently lists various specific testing frequencies for the IST program. TS 6.5.8.b currently states that the provisions of SR 4.0.2 are applicable to TS 6.5.8.a. The LAR proposes to modify TS 6.5.8.b so that the provisions of SR 4.0.2 are applicable to other normal and accelerated testing frequencies that are not specifically listed in TS 6.5.8.a, and are specified as less than 2 years in the IST program. The proposed changes are consistent with TSTF-479-A, Revision 0, "Changes to Reflect Revision of 10 CFR 50.55a," and TSTF-497-A, Revision 0, "Limit Inservice Testing Program SR 3.0.2 Application to Frequencies of 2 Years or Less." The NRC staff has previously determined that the provisions of STS SR 3.0.2, when applied to normal and accelerated testing frequencies as specified as 2 years or less in the IST program, will continue to assure that SRs will maintain the necessary quality of systems and components so that facility operation will be within safety limits, and that the limiting conditions for operation

will be met. TSTF-479, Revision 0, was approved by the NRC on December 6, 2005 (ADAMS Accession No. ML053460302), and TSTF-497, Revision 0, was approved by the NRC on October 4, 2006 (ADAMS Accession No. ML062780321).

3.1 Summary

The changes proposed by TSTF-497-A enhance the intention to apply the 25 percent IST interval extension for SR 4.0.2 to test frequencies of 2 years or less. The NRC staff concludes that the proposed changes are consistent with the requirements as contained in 10 CFR 50.36. On this basis, the NRC staff concludes that the changes proposed by TSTF-497-A are acceptable.

The changes proposed by TSTF-479-A revise references in the TS Administrative Controls IST program and Bases (e.g., from Section XI of the ASME Boiler and Pressure Vessel Code to the ASME OM Code) thereby reflecting the current edition of the Code specified in 10 CFR 50.55a(b)(3). The TS IST program was revised to indicate that the provisions of SR 3.0.2 are applicable to other inservice testing frequencies that are not specified in the program. The IST program may have frequencies for testing that are based on risk and do not conform to standard testing frequencies specified in the TS. The NRC staff concludes that the proposed revision to adopt the changes to TS 6.5.8.b is consistent with TSTF-497-A and is, therefore, acceptable.

## 4.0 STATE CONSULTATION

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

## 5.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. 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 published in the *Federal Register* on August 10, 2010 (75 FR 48375). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). 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 amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: N. Kalyanam

Date: November 5, 2010

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 by Balwant K. Singal for/

N. Kaly Kalyanam, Project Manager
Plant Licensing Branch IV
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-368

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1. Amendment No. 291 to NPF-6
2. Safety Evaluation

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