

September 29, 2005

Mr. Jeffrey S. Forbes
Site Vice President
Arkansas Nuclear One
Entergy Operations, Inc.
1448 S.R. 333
Russellville, AR 72801

SUBJECT: ARKANSAS NUCLEAR ONE, UNIT NO. 2 - ISSUANCE OF AMENDMENT RE:
PROPOSED TECHNICAL SPECIFICATION CHANGES REVISING
CONTAINMENT BUILDING STRUCTURAL INTEGRITY REQUIREMENTS
(TAC NO. MC5637)

Dear Mr. Forbes:

The Commission has issued the enclosed Amendment No. 262 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 December 20, 2004, as supplemented by letter dated April 26, 2005.

The amendment changes the existing containment structures and tendon inservice inspection requirements to be consistent with NUREG-1432, "Standard Technical Specifications Combustion Engineering Plants," Revision 3 and the American Society of Mechanical Engineers Boiler and Pressure Vessel Code, Section XI. These changes modify the Surveillance Requirement of TS 3.6.1.5, add a new Surveillance Program to TS 6.5.6, add a new report to TS 6.5.7, and make two administrative changes to the TSs.

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/

Drew G. Holland, Project Manager, Section 1
Project Directorate IV
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-368

Enclosures: 1. Amendment No. 262 to NPF-6
2. Safety Evaluation

cc w/encls: See next page

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ENTERGY OPERATIONS, INC.

DOCKET NO. 50-368

ARKANSAS NUCLEAR ONE, UNIT NO. 2

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 262
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 December 20, 2004, as supplemented by letter dated April 26, 2005, 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. 262, are hereby incorporated in the 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

/RA/

David Terao, Chief, Section 1
Project Directorate IV
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical
Specifications

Date of Issuance: September 29, 2005

ATTACHMENT TO LICENSE AMENDMENT NO. 262

RENEWED FACILITY OPERATING LICENSE NO. NPF-6

DOCKET NO. 50-368

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 marginal lines indicating the areas of change.

<u>Remove</u>	<u>Insert</u>
3/4 6-8	3/4 6-8
3/4/6-9	- - -
3/4 6-9a	3/4 6-9
6-6	6-6
6-7	6-7
6-22	6-22

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 262 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 application dated December 20, 2004 (Agencywide Documents and Access Management System (ADAMS) Accession No. ML050130173, Reference 1), as supplemented by letter dated April 26, 2005 (ADAMS Accession No. ML051250380, Reference 2), Entergy Operations, Inc. (Entergy or the licensee), requested changes to the Technical Specifications (TSs) for Arkansas Nuclear One, Unit No. 2 (ANO-2).

The proposed changes would revise ANO-2 Limiting Conditions for Operation (LCO) and Surveillance Requirements (SRs) relevant to inservice inspection requirements for the containment structures and tendons. Specifically, ANO-2 has implemented a containment inspection program which is in compliance with the requirements of 10 CFR 50.55a. The program is based on the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (Code), Section XI, Subsection IWL, as required by 10 CFR 50.55a. Therefore, the proposed changes are being made to update the ANO-2 TSs to current requirements and format.

The supplemental letter dated April 26, 2005, provided additional information that clarified the application, did not expand the scope of the application as originally noticed, and did not change the NRC staff's original proposed no significant hazards consideration determination as published in the *Federal Register* on March 29, 2005 (70 FR 15943).

2.0 REGULATORY EVALUATION

In the *Federal Register* dated August 8, 1996 (61 FR 41303), the Commission announced an amendment to 10 CFR 50.55a to incorporate by reference the 1992 Edition through the 1992 Addenda of the ASME Code, Section XI, Subsections IWE and IWL. Pursuant to 10 CFR 50.55a, the use of Subsection IWL was considered satisfactory as a substitute to the previous guidance provided in Regulatory Guide 1.35, "Inservice Inspection of UngROUTed Tendons in Prestressed Concrete Containments," Revision 3. As required by 10 CFR 50.55a(g)(4) and Subsection IWL, ANO-2 has established a Containment Inspection Program which includes both the tendon SRs and containment inspection requirements.

3.0 SUMMARY OF PROPOSED TS CHANGES

The licensee proposed the following changes to the current TS:

- Change 1 The SR for TS 3.6.1.5 has been modified to delete the previous structural integrity LCO requirement and to add a new LCO to ensure the structural integrity of the containment remains operable. The Action statement is modified to be consistent with the LCO. The existing SRs are being replaced with a single SR which states: "Verify containment structural integrity in accordance with the Containment Tendon Surveillance Program."
- Change 2 An administrative change is made to TS page 3/4 6-9a to renumber it as page 3/4 6-9.
- Change 3 A new Containment Tendon Surveillance Program is added as TS 6.5.6 which states: "This program provides controls for monitoring any tendon degradation in prestressed concrete containments, including effectiveness of its corrosion protection medium, to ensure containment structural integrity. The program shall include the use of baseline measurements from initial operation. The Containment Tendon Surveillance Program, inspection frequencies, and acceptance criteria shall be in accordance with the ASME Code, Section XI, Subsection IWL and 10 CFR 50.55a. The provisions of SR 4.0.3 are applicable to the Containment Tendon Surveillance Program inspection frequencies."
- Change 4 An administrative change is made to TS 6.5.7 to move it to page 6-7.
- Change 5 A new Containment Inspection Report is added as TS 6.6.6 which states: "Any degradation exceeding the acceptance criteria of the containment structure detected during the tests required by the Containment Tendon Surveillance Program shall undergo an engineering evaluation within 60 days of the completion of the inspection surveillance. The results of the engineering evaluation shall be reported to the NRC within an additional 30 days of the time the evaluation is completed. The report shall include the cause of the condition that does not meet the acceptance criteria, the applicability of the conditions to the other unit, the acceptability of the concrete containment without repair of the item, whether or not repair or replacement is required and, if required, the extent, method, and completion date of necessary repairs, and the extent, nature, and frequency of additional examinations."

4.0 TECHNICAL EVALUATION

In its submittal, the licensee, in addition to administrative and minor changes, removed the details of its tendon surveillance inspection from the current TS, proposed a new Containment Tendon Surveillance Program, and added new Containment Inspection Report requirements. The licensee stated that the requirements of SR 4.6.1.5.1 and TS 4.6.1.5.2 have been superseded by the requirements contained in Subsection IWL of the ASME Code and 10 CFR 50.55a, and have, therefore, been deleted. The licensee also stated that the requirements of SR 4.6.1.5.3 are redundant to the requirements for a Containment Inspection as contained in 10 CFR Part 50, Appendix J. ANO-2 TS 6.15 already requires compliance with the

Containment Leakage Rate Testing Program and, therefore, this SR is not required.

Related to the Containment Tendon Surveillance Program, the licensee states that it is implementing the program as an integral part of the Containment Inservice Inspection Program, which ensures the structural integrity of the containment. The Containment Tendon Surveillance Program, inspection frequencies, and acceptance criteria are currently in accordance with the 1992 Edition, 1992 Addenda of ASME Code, Section XI, Subsection IWL and 10 CFR 50.55a. In addition, the licensee stated that upon identification of any degradation reaching specific thresholds defined by Subsection IWL of the ASME Code, an Engineering Evaluation will be required to determine the impact of the degradation on overall operability. If the Engineering Evaluation results indicate that structural integrity cannot be established, the Containment will be declared inoperable. Including structural integrity in TS 3.6.1.5 will require ANO-2 to restore structural integrity (Operability) within 1 hour or commence plant shutdown. Currently, TS 3.6.1.5 allows a restoration period of 24 hours before unit shutdown must commence. The licensee concluded that this proposed change is more restrictive and is generally consistent with NUREG-1432, "Standard Technical Specifications, Combustion Engineering Plants," Revision 3.

During its review, the NRC staff requested additional information related to the addition of the new Containment Tendon Surveillance Program as TS 6.5.6. In its response (Reference 2), the licensee stated that the changes made when adding TS 6.5.6 meet the intent of TS 5.5.6 of NUREG-1432, but was modified. One of the modifications made was the deletion of the sentence regarding the baseline measurements taken prior to initial operations. In response to the NRC staff's request to provide justification for deleting this sentence, the licensee stated that the purpose of the sentence was believed by Entergy to be applicable to new facilities that are planning to conduct initial containment inspections and not with regard to data analysis. Therefore, the licensee revised TS Section 6.5.6 and the sentence was changed from "The program shall include baseline measurements prior to initial operations" to "The program shall include the use of baseline measurements from initial operation." The NRC staff finds this response acceptable because it clarifies when the baseline measurements are applicable.

In its proposed changes, the licensee also included a requirement for providing Containment Inspection Report in TS 6.6.6. This report will require that an Engineering Evaluation be submitted to the NRC within 30 days of completion of an evaluation for any degradation exceeding the acceptance criteria of the containment structure detected during the tests required by the Containment Tendon Surveillance Program. The report shall include the cause of the condition that does not meet the acceptance criteria; the applicability of the conditions to the other unit; the acceptability of the concrete containment without repair of the item; whether or not repair or replacement is required and, if required, the extent, method, and completion date of necessary repairs; and the extent, nature, and frequency of additional examinations. This reporting requirement is consistent with the timing for submittal of the information required by IWL-3310. This reporting requirement is also consistent with that contained in the Arkansas Nuclear One, Unit No. 1 (ANO-1) TS 5.6.6 issued in ANO-1 License Amendment 199, dated September 9, 1999 (ADAMS Accession No. ML021270244). Even though the wording is the same as the current ANO-1 TS, it includes the considerations of NUREG-1432.

The NRC staff reviewed the proposed changes to the TS related to containment structural

integrity and finds the modifications to containment structures and tendon inservice inspection requirements to be consistent with NUREG-1432, ASME Code Subsection IWL, and 10 CFR 50.55a. Approval of the proposed TS changes does not relieve the licensee of its responsibility to report, pursuant to 10 CFR 50.73(a)(2)(ii), any event or condition that result in the condition of the nuclear power plant being degraded. These conditions include serious degradation of the containment concrete structure, such as de-lamination of the dome concrete, corrosion of the prestressing elements or anchorage components extending more than two tendons, tendon force trend not meeting the requirement of 10 CFR 50.55a(b)(2)(ix)(B), and widespread corrosion of the steel liner plate.

5.0 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.

6.0 ENVIRONMENTAL CONSIDERATION

The amendment relates to changes in recordkeeping, reporting, or administrative procedures or requirements. 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 (70 FR 15943, dated March 29, 2005). 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.

7.0 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.

8.0 REFERENCES

1. Letter from J. S. Forbes, (Entergy Operations, Inc.) to NRC, "Proposed Technical Specification Changes Revising Containment Building Structural Integrity Requirements, Arkansas Nuclear One, Unit 2," dated December 20, 2004.
2. Letter from D. E. James, (Entergy Operations, Inc.) to NRC, "Response to Request for Additional Information Regarding Proposed Technical Specification Change on Containment Structural Integrity, Arkansas Nuclear One, Unit 2," dated April 26, 2005.

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Date: September 29, 2005

Arkansas Nuclear One

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May 2005