

June 10, 2002

Mr. Craig G. Anderson
Vice President, Operations ANO
Entergy Operations, Inc.
1448 S. R. 333
Russellville, AR 72801

SUBJECT: ARKANSAS NUCLEAR ONE, UNIT NO. 1 - ISSUANCE OF AMENDMENT RE:
PROPOSED CHANGES TO SUPPORT IMPLEMENTATION OF IMPROVED
TECHNICAL SPECIFICATIONS (TAC NO. MB4750)

Dear Mr. Anderson:

The Nuclear Regulatory Commission (NRC) has issued the enclosed Amendment No. 218 to Renewed Facility Operating License No. DPR-51 for Arkansas Nuclear One, Unit No. 1 (ANO-1). The amendment consists of changes to the Technical Specifications (TSs) in response to your application dated March 13, 2002, as supplemented by letter dated May 23, 2002.

The amendment corrects several errors that were found subsequent to NRC issuance of Amendment No. 215, which converted the plant TSs for ANO-1 to Improved 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.

We are using this opportunity to correct a formatting error (the inclusion of word processing markings) on TS Page 5.0-28. This error was introduced in Amendment No. 216, which was issued on May 15, 2002.

Sincerely,

/RA/

William Reckley, Project Manager, Section 1
Project Directorate IV
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-313

Enclosures: 1. Amendment No. 218 to DPR-51
2. Safety Evaluation

cc w/encls: See next page

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* see previous concurrence

OFFICE	PDIV-1/PM	PDIV-1/LA	NRR/RORP	OGC	PDIV-1/SC
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OFFICIAL AGENCY RECORD

ENTERGY OPERATIONS INC.

DOCKET NO. 50-313

ARKANSAS NUCLEAR ONE, UNIT NO. 1

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 218
Renewed License No. DPR-51

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Entergy Operations, Inc. (the licensee) dated March 13, 2002, as supplemented by letter dated May 23, 2002, 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. DPR-51 is hereby amended to read as follows:

2. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 218, 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 in conjunction with the implementation of Amendment No. 215.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Robert A. Gramm, 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: June 10, 2002

ATTACHMENT TO LICENSE AMENDMENT NO. _____

RENEWED FACILITY OPERATING LICENSE NO. DPR-51

DOCKET NO. 50-313

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>
1.1-5	1.1-5
1.1-6	1.1-6
1.2-3	1.2-3
1.3-13	1.3-13
1.4-8	1.4-8
3.0-3	3.0-3
3.7.7-2	3.7.7-2
3.8.5-1	3.8.5-1
3.8.5-2	3.8.5-2
3.8.8-1	3.8.8-1
3.8.9-1	3.8.9-1
3.8.9-2	3.8.9-2
3.9.4-1	3.9.4-1
5.0-1	5.0-1
5.0-2	5.0-2
5.0-7	5.0-7
5.0-8	5.0-8
5.0-23	5.0-23
5.0-28	5.0.28 ¹
5.0-31	5.0-31
B 2.1.1-1	B 2.1.1-1
B 3.6.5-1	B 3.6.5-1
B 3.6.5-4	B 3.6.5-4
B 3.6.6-2	B 3.6.6-2
B 3.7.9-2	B 3.7.9-2
B 3.7.10-2	B 3.7.10-2
B 3.8.2-6	B 3.8.2-6
B 3.8.8-1	B 3.8.8-1
B 3.8.8-3	B 3.8.8-3
B 3.8.8-4	B 3.8.8-4
B 3.8.10-1	B 3.8.10-1
B 3.9.2-1	B 3.9.2-1
B 3.9.2-2	B 3.9.2-2
B 3.9.2-3	B 3.9.2-3
B 3.9.2-4	B 3.9.2-4
B 3.9.5-3	B 3.9.5-3

¹ Correction page for Amendment No. 216

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 218 TO

RENEWED FACILITY OPERATING LICENSE NO. DPR-51

ENTERGY OPERATIONS, INC.

ARKANSAS NUCLEAR ONE, UNIT NO. 1

DOCKET NO. 50-313

1.0 INTRODUCTION

By letter dated March 13, 2002, as supplemented by letter dated May 23, 2002, Entergy Operations, Inc. (the licensee), submitted a request for changes to the Arkansas Nuclear One, Unit No. 1 (ANO-1), Technical Specifications (TSs). The requested changes would correct several errors that were found subsequent to Nuclear Regulatory Commission (NRC or the Commission) issuance of Amendment No. 215, which converted the plant TSs for ANO-1 to Improved TSs (ITS).

The letter dated May 23, 2002, provided clarifying information to support the staff's review of the application and did not change the staff's initial proposed no significant hazards consideration determination.

2.0 REGULATORY EVALUATION

In 10 CFR 50.36, "Technical specifications," the Commission established its regulatory requirements related to the content of TSs. Amendment No. 215, dated October 29, 2001, was a major revision to the TSs for ANO-1. The revision involved converting the form and content of the TSs for ANO-1 to ITS from a custom format typical of the early 1970's. The conversion was based upon:

- NUREG-1430, "Standard Technical Specifications [STS] for Babcock & Wilcox Plants," Revision 1, dated April 1995,
- Generic improvements to NUREG-1430, Revision 1,
- "Final Policy Statement on Technical Specification Improvements for Nuclear Power Reactors," (Final Policy Statement), published on July 22, 1993 (58 FR 39132),
- The requirements in the ANO-1 TSs before the conversion, and
- The Commission's regulations, including 10 CFR 50.36, as amended July 19, 1995 (60 FR 36953).

The NRC acknowledged in its safety evaluation (SE) for Amendment No. 215 that the ITS would differ from the STS, to reflect the current licensing basis for ANO-1. The ITS, therefore, is a combination of requirements carried from the TSs prior to Amendment No. 215 and the requirements adopted from the STS.

Several errors were introduced during the licensee's applications for and the NRC staff's issuance of Amendment No. 215. Many of the errors involved minor formatting issues for which the corrections are straightforward. Several of the changes do, however, involve proposed changes to technical requirements in the ITS as they were issued as Amendment No. 215. The following changes will be specifically addressed in the technical evaluation section of this SE:

- (1) Required Action A.1 is proposed for Limiting Condition for Operation (LCO) 3.8.8, "Inverters - Shutdown," consistent with NUREG-1430. The action is to declare affected required feature(s) inoperable when one or more inverters are inoperable. This action was omitted during the ANO-1 conversion to the ITS. The Bases for A.1 is revised accordingly.
 - ▶ The regulatory context for the requirements on inverters during shutdown conditions is described in the Bases section of NUREG-1430 and the ITS issued to ANO-1. The Bases section of NUREG-1430 describes the acceptability of declaring affected equipment inoperable as an alternative to the more specific actions (e.g., suspending core alterations) that are defined in required action A.2. The letter dated May 23, 2002, supplied revised Bases pages to clarify the addition of Required Action A.1.
- (2) ITS 5.2.2.a (Unit Staff) is proposed to return to the previous (i.e., before issuance of Amendment No. 215) TS requirements to have three non-licensed operators instead of the two included in the ITS (inadvertently adopted from STS). This change is intended to maintain consistency with Arkansas Nuclear One, Unit No. 2 and the existing studies of required staffing for ANO-1.
 - ▶ NRC requirements related to licensed operators are specified in 10 CFR 50.54, "Conditions of licenses." The requirements for non-licensed operators are defined in plant TSs. The requirements for ANO-1 to have three non-licensed operators on shift during power operations was incorporated into the TSs by Amendment No. 146 dated April 26, 1991. The requirement to have three non-licensed operators was proposed by the licensee based upon the verification and validation process associated with Emergency Operating Procedures.
- (3) ITS 5.5.3, "Post Accident Sampling System" is proposed to be re-titled "Iodine Monitoring" with related changes to the program description consistent with license condition 2.C.(6), "Iodine Monitoring," which was relocated to ITS 5.5.3 as part of Amendment No. 215.
 - ▶ The requirements for ANO-1 to have and maintain a post accident sampling system (as described in NUREG-0737, "Clarification of TMI [Three Mile Island Nuclear Station] Action Plan Requirements") were eliminated by the issuance of Amendment No. 208, dated August 17, 2000. License condition 2.C.(6) established requirements for monitoring airborne iodine concentrations in vital areas and defined the program using the same requirements (i.e., training, procedures and maintenance) that were used for post accident sampling systems in the STS and in ANO-1 TSs before Amendment No. 208. During the

conversion to the ITS, the requirements in license condition 2.C.(6) were maintained but relocated from the operating license to the TSs (as ITS 5.5.3, "Post Accident Sampling").

- (4) ITS 5.5.4.b (Radioactive Effluent Controls Program- liquid effluents) is proposed to return to the previous (i.e., before issuance of Amendment No. 215) license requirement for ANO-1 to abide by the concentration values set forth in 10 CFR Part 20, Appendix B, Table II, Column 2, instead of ten times the revised 10 CFR Part 20 concentration values in Appendix B, Table 2, Column 2, to 10 CFR 20.1001 through 20.2402.
- ▶ The requirements for TSs concerning effluents from nuclear power plants are stated in 10 CFR 50.36a, "Technical specifications on effluents from nuclear power reactors." Amendment No. 193 issued September 23, 1998, revised the content of the TSs for ANO-1 in accordance with the guidance provided in Generic Letter (GL) 89-01, "Implementation of Programmatic and Procedural Controls for Radiological Effluent Technical Specifications." Subsequent to the issuance of the GL 89-01, 10 CFR Part 20, "Standards for Protection Against Radiation," was revised. The revised Part 20 became effective for all NRC licensees on January 1, 1994. As stated in the SE for Amendment No. 193, the staff has continued to accept TS references to Appendix B, Table II, Column 2 as "instantaneous concentration values," since these limits support the design objectives of Appendix I to 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities," and the limits of 40 CFR Part 190, "Environmental Radiation Protection Standards For Nuclear Power Operations."
- (5) ITS 5.5.4.g (Radioactive Effluent Controls Program- gaseous effluents) is proposed to return to the previous (i.e., before issuance of Amendment No. 215) license requirement for ANO-1 to abide by the concentration values set forth in 10 CFR Part 20, Appendix B, Table II, Column 1, instead of the revised 10 CFR Part 20 requirements listed in ITS 5.5.4.g.1 and 5.5.4.g.2.
- ▶ The requirements for TSs concerning effluents from nuclear power plants are stated in 10 CFR 50.36a. Amendment No. 193 issued September 23, 1998, revised the content of the TSs for ANO-1 in accordance with the guidance provided in GL 89-01. Subsequent to the issuance of the GL 89-01, 10 CFR Part 20 was revised. The revised Part 20 became effective for all NRC licensees on January 1, 1994. As stated in the SE for Amendment No. 193, the staff has continued to accept TS references to Appendix B, Table II as "instantaneous concentration values," since these limits support the design objectives of Appendix I to 10 CFR Part 50 and the limits of 40 CFR Part 190.

In addition, the licensee provided changes to the Bases in order to allow the NRC and licensee to have matching copies of ITS (including the Bases sections) upon implementation. A specific change to the Bases for the Control Room Emergency Ventilation System clarified that automatic isolation requirements do not apply when the system is already in its emergency recirculation mode of operation.

3.0 TECHNICAL EVALUATION

Each of the identified changes are addressed below:

- (1) Required Action A.1 proposed for LCO 3.8.8 consistent with NUREG-1430. The action is to declare affected required feature(s) inoperable when one or more inverters are inoperable.
 - ▶ The regulatory context for the requirements on inverters during shutdown conditions is described in the Bases section of NUREG-1430 and the ANO-1 ITS. The licensee's letter dated May 23, 2002, provided additional information (from NUREG-1430) for the Bases of the ITS. As explained in the Bases section for this TS in NUREG-1430, appropriate restrictions will be implemented in accordance with the affected required features LCO's Required Actions if those features are declared inoperable due to an inoperable inverter. The possible administrative efforts of declaring affected features inoperable and entering Required Actions in multiple LCOs led to including alternate conservative actions (i.e., suspending Core Alterations as defined in Required Action A.2).

The staff accepts that not including both possible Required Actions in TS 3.8.8 was an inadvertent omission during the conversion to the ITS. The previously described bases for the TS Required Actions provided in NUREG-1430 are applicable to ANO-1. The proposed change is therefore acceptable.
- (2) Proposal for ITS 5.2.2.a to return to the previous (i.e., before issuance of Amendment No. 215) TS requirement to have three non-licensed operators instead of the two included in the ITS.
 - ▶ The requirement to have three non-licensed operators was proposed by the licensee and incorporated into ANO-1 TSs via Amendment No. 146, as a result of the licensee's verification and validation of Emergency Operating Procedures. The standard requirements included in NUREG-1430 (two non-licensed operators when the reactor is above cold shutdown conditions) was inadvertently included in the conversion to the ITS. The licensee's proposal to correct this error by reverting to the requirements defined in Amendment No. 146 is appropriate.
- (3) Proposal to retitle ITS 5.5.3, "Post Accident Sampling System," to "Iodine Monitoring" with related changes to the program description, consistent with license condition 2.C.(6), "Iodine Monitoring," prior to Amendment No. 215.
 - ▶ The staff acknowledged in Amendment No. 215 that the relocation of license condition 2.C.(6) to the programmatic controls section of the TSs was appropriate. The use of the STS requirement for post accident sampling does, however, introduce possible confusion since the plant-specific application for ANO-1 for post-accident iodine monitoring differs from the usual reference to post accident sampling (i.e., the requirements that were eliminated for ANO-1 by Amendment No. 208). The proposed change improves the TSs by clarifying that

ITS 5.5.3 refers to the monitoring of airborne iodine concentration per the previous license condition 2.C.(6) and not to the more general post accident sampling program referred to in the STS and ANO-1 TSs before Amendment No. 208. The staff finds that the proposal does not change the intended technical requirements and is an acceptable clarification of the program controlled by the revised ITS 5.5.3, "Iodine Monitoring."

- (4) Proposal for ITS 5.5.4.b to be returned to the previous (i.e., before issuance of Amendment No. 215) license requirement for ANO-1 to abide by the concentration values set forth in 10 CFR Part 20, Appendix B, Table II, Column 2, instead of ten times the revised concentration values in Appendix B, Table 2, Column 2, to 10 CFR 20.1001 through 20.2402.
- ▶ The standard requirements included in NUREG-1430 refer to 10 CFR Part 20 requirements that became effective on January 1, 1994. During the conversion to the ITS, TS 5.5.4.b was changed to incorporate the use of current Part 20, Appendix B, Table 2 values as described in NUREG-1430. The licensee now proposes to revert to the use of pre-revision Part 20, Appendix B, Table II values. The staff continues to accept TS references to pre-revision Part 20, Appendix B, Table II values as "instantaneous concentration values," since these limits support the design objectives of Appendix I to 10 CFR Part 50 and the limits of 40 CFR Part 190. Because reversion to the use of pre-revision Part 20, Appendix B, Table II values will not alter the licensee's obligations under 10 CFR Part 50, Appendix I, the proposed change is acceptable.
- (5) Proposal for ITS 5.5.4.g to be returned to the previous (i.e., before issuance of Amendment No. 215) license requirement for ANO-1 to abide by the concentration values set forth in 10 CFR Part 20, Appendix B, Table II, Column 1, instead of the revised 10 CFR Part 20 requirements listed in ITS 5.5.4.g.1 and 5.5.4.g.2.
- ▶ The standard requirements included in NUREG-1430 refer to 10 CFR Part 20 requirements that became effective on January 1, 1994. During the conversion to the ITS, TS 5.5.4.g was changed to the language used in NUREG-1430. The licensee now proposes to revert to the use of pre-revision Part 20, Appendix B, Table II values. The staff continues to accept TS references to pre-revision Part 20, Appendix B, Table II values as "instantaneous concentration values," since these limits support the design objectives of Appendix I to 10 CFR Part 50 and the limits of 40 CFR Part 190. Because reversion to the use of pre-revision Part 20, Appendix B, Table II values will not alter the licensee's obligations under 10 CFR Part 50, Appendix I, the proposed change is acceptable.

In addition to the above changes, the licensee provided changes to correct minor (e.g., typographical and formatting) errors introduced during the conversion to the ITS for ANO-1. The staff has reviewed these changes and found that the licensee's proposals do not revise technical or regulatory requirements and are appropriate to correct errors in the ITS as issued in Amendment No. 215.

The licensee also included changes to the Bases in their application, as supplemented by letter dated May 23, 2002, in order to allow the NRC and licensee to have matching copies of ITS (including the Bases sections) upon implementation. A specific change to the Bases for the Control Room Emergency Ventilation System clarified that automatic isolation requirements do not apply when the system is already in its emergency recirculation mode of operation. The staff offers no objections to the Bases changes submitted by the licensee and is including them in this amendment to achieve the stated goal of consistency between licensee and NRC copies of the ITS. ITS 5.5.14, "Bases Control Program," establishes a process for subsequent control of TS Bases.

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 (67 FR 21287, dated April 30, 2002). 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: W. Reckley

Date: June 10, 2002

Arkansas Nuclear One

cc:

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