

May 31, 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. 2 - ISSUANCE OF AMENDMENT
RE: RELOCATION OF CONTAINMENT RECIRCULATION SYSTEM
(TAC NO. MB1842)

Dear Mr. Anderson:

The Commission has issued the enclosed Amendment No. 245 to Facility Operating License No. NPF-6 for Arkansas Nuclear One, Unit No. 2 (ANO-2). This amendment consists of changes to the Technical Specifications (TSs) in response to your application dated May 2, 2001, as supplemented by letter dated March 20, 2002.

The amendment relocates the requirements for the containment recirculation system from the TSs to the Technical Requirements Manual.

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/

Thomas W. Alexion, 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. 245 to NPF-6
2. Safety Evaluation

cc w/encls: See next page

May 31, 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. 2 - ISSUANCE OF AMENDMENT
RE: RELOCATION OF CONTAINMENT RECIRCULATION SYSTEM
(TAC NO. MB1842)

Dear Mr. Anderson:

The Commission has issued the enclosed Amendment No 245 to Facility Operating License No. NPF-6 for Arkansas Nuclear One, Unit No. 2 (ANO-2). This amendment consists of changes to the Technical Specifications (TSs) in response to your application dated May 2, 2001, as supplemented by letter dated March 20, 2002.

The amendment relocates the requirements for the containment recirculation system from the TSs to the Technical Requirements Manual.

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/

Thomas W. Alexion, Project Manager, Section 1
Project Directorate IV
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-368

DISTRIBUTION

Enclosures:

- 1. Amendment No. 245 to NPF-6
- 2. Safety Evaluation

PUBLIC
 PDIV-1 RF
 RidsNrrDripRtsb (WBeckner)
 RidsNrrDlpm(JZwolinski/TMarsh)
 RidsNrrDlpmLpdiv(CHolden)
 RidsOgcRp
 Rids AcrsAcnwMailCenter
 RidsNrrDlpmPdivLpdiv1(RGramm)

RidsNrrPMTAlexion
 RidsNrrLADJohnson
 RidsRgn4MailCenter(KBrockman)
 EBenner
 L.Hurley,RIV
 D.Bujol,RIV
 G.Hill(2)

cc w/encls: See next page

TS: ML021620013

PKG: ML021750311

Accession No.: ML021300342

NRR-058

***SE input includes SPLB concurrence**

OFFICE	PDIV-1/PM	PDIV-1/LA	RORP/TSS/SC*	OGC	PDIV-1/SC
NAME	TAlexion:sp	DJohnson	RDennig WDBfor	SBrock	MWebb RGramm
DATE	5/17/02	5/15/02	03/27/02	5/22/02	5/31/02

OFFICIAL RECORD COPY

ENERGY OPERATIONS, INC.

DOCKET NO. 50-368

ARKANSAS NUCLEAR ONE, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 245
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 May 2, 2001, as supplemented by letter dated March 20, 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 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. 245, 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 60 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA by M Webb for/

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: May 31, 2002

ATTACHMENT TO LICENSE AMENDMENT NO. 245

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.

Remove

VII
3/4 6-20
B 3/4 6-3
B 3/4 6-5
B 3/4 6-6

Insert

VII

B 3/4 6-3
B 3/4 6-5
B 3/4 6-6

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 245 TO

FACILITY OPERATING LICENSE NO. NPF-6

ENERGY OPERATIONS, INC.

ARKANSAS NUCLEAR ONE, UNIT NO. 2

DOCKET NO. 50-368

1.0 INTRODUCTION

By letter dated May 2, 2001, as supplemented by letter dated March 20, 2002, Entergy Operations, Inc. (the licensee), submitted a request for changes to the Arkansas Nuclear One, Unit No. 2 (ANO-2), Technical Specifications (TSs). The requested changes would relocate the requirements for the containment recirculation system from the TSs to the Technical Requirements Manual (TRM).

The March 20, 2002, supplemental letter provided clarifying information that did not change the scope of the original *Federal Register* notice (66 FR 29352, May 30, 2001) or the original no significant hazards consideration determination.

2.0 BACKGROUND

The Commission's regulatory requirements related to the content of TSs are set forth in 10 CFR 50.36. This regulation requires that the TSs include items in five specific categories. These categories include 1) safety limits, limiting safety system settings and limiting control settings; 2) limiting conditions for operation (LCOs); 3) surveillance requirements; 4) design features; and 5) administrative controls. However, the regulation does not specify the particular TSs to be included in a plant's license.

Additionally, 10 CFR 50.36(c)(2)(ii) sets forth four criteria to be used in determining whether a LCO is required to be included in the TSs. These criteria are as follows:

1. Installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary.
2. A process variable, design feature, or operating restriction that is an initial condition of a design basis accident or transient analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.
3. A structure, system, or component that is part of the primary success path and which functions or actuates to mitigate a design basis accident or transient that

either assumes the failure of or presents a challenge to the integrity of a fission product barrier.

4. A structure, system or component which operating experience or probabilistic risk assessment has shown to be significant to public health and safety.

Existing LCOs and related surveillances included as TS requirements which satisfy any of the criteria stated above must be retained in the TSs. Those TS requirements which do not satisfy these criteria may be relocated to other, licensee-controlled documents.

3.0 EVALUATION

ANO-2 TS 3/4.6.4.3, containment recirculation system, is proposed to be relocated to the TRM.

In the staff's safety evaluation for ANO-2 Amendment 3, dated October 4, 1987, the staff stated:

One of the provisions of Standard Review Plan 6.2.5 is that a system be provided to mix the combustible gases within the containment following a loss-of-coolant accident (LOCA). This may be accomplished through the use of a recirculation fan system, fan-cooler system, or containment spray system. We have found that each of these systems acting alone is an acceptable means for providing adequate recirculation of the containment atmosphere. In addition to any of the above systems, natural convection forces would also contribute to mixing the containment atmosphere.

The containment cooling units (i.e., fan-coolers, covered by TS 3/4.6.2.3) and the containment spray system (covered by TS 3/4.6.2.1) are both safety-related systems, whereas the containment recirculation fans are not. As stated above, any one of these systems is adequate to mix the combustible gases in the containment atmosphere following a LOCA. The two safety systems are adequate to perform the atmosphere mixing function, and the containment recirculation fans are not needed.

LCOs and associated requirements that do not satisfy or fall within any of the four specified criteria presently contained in 10 CFR 50.36 may be relocated from existing TSs (an NRC-controlled document) to appropriate licensee-controlled documents. The staff has reviewed the containment recirculation system specification proposed for relocation from the ANO-2 current TSs against these criteria, as described below.

The containment recirculation fans are not used in the detection of a significant degradation of the reactor coolant pressure boundary. Therefore, this specification does not meet Criterion 1.

The containment recirculation fans do not challenge the integrity of containment. If an increase in hydrogen concentration were to occur in containment post-LOCA, adequate mixing of the containment atmosphere is available through use of the safety-related containment cooling units and containment spray system. Therefore, this specification does not meet Criterion 2.

Based on a review of the ANO-2 Safety Analysis Report (SAR) Chapter 15 events, the containment recirculation fans were not credited in any design basis accident or transient analysis. Therefore, this specification does not meet Criterion 3.

The containment recirculation system is not credited in the ANO-2 probabilistic risk assessment for accomplishing the hydrogen mixing function. The containment cooling units and/or the containment spray pumps, which are credited, provide the mixing of the containment atmosphere. The containment recirculation system is judged to be non-risk significant as a means of providing containment atmosphere mixing. Therefore, this specification does not meet Criterion 4.

The specifications proposed for relocation from the ANO-2 current TSs, discussed above, are not required to be in the TSs because they do not fall within the criteria for mandatory inclusion in the TSs as stated in 10 CFR 50.36(c)(2)(ii). These specifications are not needed to obviate the possibility that an abnormal situation or event will give rise to an immediate threat to the public health and safety. Therefore, they may be removed from the TSs.

The licensee indicated that the containment recirculation system specifications contained in TS 3/4.6.4.3, with their LCOs and surveillance requirements, will be relocated to the TRM following NRC approval of their amendment request. The licensee further indicated that no changes to these specifications, other than the relocation, are proposed in their request.

The ANO-2 SAR, Section 13.8.2, states that the TRM is administered as part of the SAR, changes to the TRM are subject to the criteria of 10 CFR 50.59, and administrative controls for processing TRM changes are included in the site procedures. Therefore, the staff finds that sufficient regulatory controls exist for the TRM.

Accordingly, the staff has concluded that the requirements associated with the containment recirculation system in TS 3/4.6.4.3 may be relocated outside the TSs because (1) the 10 CFR 50.36 TS inclusion criteria are not applicable, (2) these requirements will be appropriately relocated to the licensee's TRM, and (3) sufficient regulatory controls exist for the TRM.

Associated with the above changes are an appropriate revision to TS index page VII. This page change is administrative and acceptable.

Also associated with the relocation of the containment recirculation system TSs discussed above, the licensee proposed to also revise the TS Bases for combustible gas control, the containment spray system, and the containment cooling system, to indicate that adequate mixing of the containment following a LOCA is provided by the containment spray system and containment cooling system. These changes are also appropriate.

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 and changes surveillance requirements. 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 (66 FR 29352, dated May 30, 2001). 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: E. Benner

Date: May 31, 2002

Arkansas Nuclear One

cc:

Executive Vice President
& Chief Operating Officer
Entergy Operations, Inc.
P. O. Box 31995
Jackson, MS 39286-1995

Vice President, Operations Support
Entergy Operations, Inc.
P. O. Box 31995
Jackson, MS 39286-1995

Director, Division of Radiation
Control and Emergency Management
Arkansas Department of Health
4815 West Markham Street, Slot 30
Little Rock, AR 72205-3867

Wise, Carter, Child & Caraway
P. O. Box 651
Jackson, MS 39205

Winston & Strawn
1400 L Street, N.W.
Washington, DC 20005-3502

Mike Schoppman
Framatome ANP, Richland, Inc.
Suite 705
1911 North Fort Myer Drive
Rosslyn, VA 22209

Senior Resident Inspector
U.S. Nuclear Regulatory Commission
P. O. Box 310
London, AR 72847

Regional Administrator, Region IV
U.S. Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 400
Arlington, TX 76011-8064

County Judge of Pope County
Pope County Courthouse
Russellville, AR 72801

March 2001