

January 23, 2006

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: TECHNICAL SPECIFICATION CHANGE REQUEST FOR ELECTRICAL  
EQUIPMENT PROTECTIVE DEVICES (TAC NO. MC5782)

Dear Mr. Forbes:

The Commission has issued the enclosed Amendment No. 263 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 January 31, 2005.

The amendment changes TS 3.8.2.5, "ELECTRICAL POWER SYSTEMS - Containment Penetration Conductor Overcurrent Protective Devices." The change relocates the requirements for containment penetration conductor overcurrent protective devices from the TSs to the licensee's Technical Requirements Manual (TRM). The Bases for this TS would also be relocated to TRM.

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  
Plant Licensing Branch IV  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-368

Enclosures: 1. Amendment No. 263 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. 263  
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 January 31, 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 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. 263, 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/**

David Terao, Chief  
Plant Licensing Branch IV  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical  
Specifications

Date of Issuance: January 23, 2006

ATTACHMENT TO LICENSE AMENDMENT NO. 263  
RENEWED FACILITY OPERATING LICENSE NO. NPF-6  
DOCKET NO. 50-368

Remove the following pages of the Appendix A Technical Specifications.

Remove  
3/4 8-11  
3/4 8-12

Insert  
- - -  
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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 263 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 January 31, 2005 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML050330167), Entergy Operations, Inc. (the licensee), requested changes to the Technical Specifications (TSs) for Arkansas Nuclear One, Unit No. 2 (ANO-2).

The proposed changes would revise TSs 3.8.2.5, "ELECTRICAL POWER SYSTEM - Containment Penetration Conductor Overcurrent Protective Devices." The proposed change would relocate the requirements for containment penetration conductor overcurrent protective devices from the TSs to the licensee's Technical Requirements Manual (TRM). The bases of these TSs would also be relocated to the TRM. Once the requirements are relocated to the TRM, future revisions are controlled by the 10 CFR 50.59 process. The licensee is proposing these changes to make its TSs consistent with that of NUREG-1432, "Standard Technical Specifications - Combustion Engineering Plants."

2.0 REGULATORY EVALUATION

Section 50.36(c)(2)(ii) of Title 10 of the *Code of Federal Regulations* (10 CFR 50.36(c)(2)(ii)) contains the requirements for items that must be in TSs. This regulation provides four criteria that are used to determine the requirements that must be included in the TSs. A TS limiting condition for operation (LCO) of a nuclear reactor must be established for each item meeting one or more of the following criteria:

- Criterion 1: Installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary.
- Criterion 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.
- Criterion 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.

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

Items not meeting any of these four criteria can be relocated from the TSs to a licensee-controlled document. The licensee can then change the relocated requirements, if necessary, in accordance with 10 CFR 50.59. The criteria and NRC staff's evaluation of the TS proposed for relocation to the TRM are discussed below.

### 3.0 TECHNICAL EVALUATION

#### TS 3.8.2.5

Currently, TS 3.8.2.5 requires that all containment penetration conductor overcurrent protective devices be operable. These devices are installed to minimize the damage from a fault in a component inside containment or in the cabling that penetrates containment. This prevents an electrical penetration from being damaged in such a way that the containment structure could be breached. The proposed TS would relocate these devices to the TRM.

Criterion 1 addresses instrumentation installed to detect excessive reactor coolant system (RCS) leakage. TS 3.8.2.5, which addresses the containment penetration conductor overcurrent protective devices, does not cover installed instrumentation that is used to detect, and indicate in the control room, a significant degradation of the reactor coolant pressure boundary. Thus, the containment penetration conductor overcurrent devices do not satisfy Criterion 1.

The purpose of Criterion 2 is to capture those process variables that have initial values assumed in the design basis accident and transient analyses and that are monitored and controlled during power operation. This criterion also includes active design features (e.g., high-pressure/low-pressure system valves and interlocks) and operating restrictions (pressure/temperature limits) needed to preclude unanalyzed accidents and transients. The containment penetration conductor overcurrent protective devices do help preserve the assumptions of the accident analysis by enhancing proper equipment operation. However, they are not 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. Thus, the containment penetration conductor overcurrent protective devices do not satisfy Criterion 2.

The purpose of Criterion 3 is to capture only those structures, systems, and components that are part of the primary success path of the safety analysis (an examination of the actions required to mitigate the consequences of the design basis accident and transients). The primary success path of a safety analysis consists of the combinations and sequences of equipment needed to operate so that the plant responses to the design basis accident and the transients limiting the consequences of these events are within the appropriate acceptance criteria. Also captured by this criterion are those support and actuation systems that are necessary in the primary success path, but this criterion does not include backup and diverse equipment. These conductor overcurrent protective devices are installed to minimize the damage from a fault in a component inside containment or in conductors that penetrate

containment. However, they are not a structure, system, or component that is part of the primary success path whose function or actuation mitigates a design basis accident or transient that either assumes the failure of, or presents a challenge to, the integrity of a fission product barrier. Thus, the containment penetration conductor overcurrent protective devices do not satisfy Criterion 3.

The purpose of Criterion 4 is to capture only those structures, systems, and components that either operating experience or probabilistic safety assessment has shown to be significant to the public health and safety. The conductor overcurrent protective devices are not a structure, system, or component that operating experience or probabilistic safety assessment has shown to be significant to the public health and safety. The Maintenance Rule (10 CFR 50.65) does not require these protective devices to be monitored for unavailability. In addition, the licensee indicated that its review of industry operating experience did not produce any examples where containment penetration breakers have had a significant adverse effect on public health and safety. Thus, the containment penetration conductor overcurrent protective devices do not meet Criterion 4.

The requirement contained in this specification for the containment penetration conductor overcurrent protective devices does not meet any of the 10 CFR 50.36(c)(2)(ii) criteria for items that must be in the TSs. In addition, NUREG-1432, Section 3.8, Electrical Power Systems, does not contain an LCO for the containment penetration conductor overcurrent protective devices. Therefore, these TS requirements may be relocated the TRM.

#### Bases Section

The Bases Section for TS 3.8 associated with containment penetration overcurrent protection is being relocated to the TRM. This is consistent with the above TS changes and is, therefore, considered 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 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 published August 2, 2005 (70 FR 44401). 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.

#### 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. The staff has also found that future changes to the relocated items can be adequately managed through the 10 CFR 50.59 review process and that the relocation of these items to the TRM is acceptable.

Principal Contributor: John Knox

Date: January 23, 3006

Arkansas Nuclear One

cc:

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September 2005