

April 26, 1991

Docket Nos. 50-313  
and 50-368

Mr. Neil S. Carns  
Vice President, Operations ANO  
Entergy Operations, Inc.  
Route 3 Box 137G  
Russellville, Arkansas 72801

Dear Mr. Carns:

SUBJECT: ISSUANCE OF AMENDMENT NOS. 146 AND 118 TO FACILITY OPERATING LICENSE  
NOS. DPR-51 AND NPF-6 - ARKANSAS NUCLEAR ONE, UNITS 1 AND 2  
(TAC NOS. 79827 AND 79821)

The Commission has issued the enclosed Amendment Nos. 146 and 118 to Facility Operating License Nos. DPR-51 and NPF-6 for the Arkansas Nuclear One, Unit Nos. 1 and 2 (ANO-1&2). These amendments consist of changes to the Technical Specifications (TSs) in response to your applications dated February 20, 1991.

The amendments revise Table 6.2-1 of the Administrative section of the ANO-1&2 TS to increase the number of licensed and non-licensed operators required when either unit is in a mode above cold shutdown.

A copy of our related Safety Evaluation is also enclosed. A Notice of Issuance will be included in the Commission's next biweekly Federal Register notice.

Sincerely,

Original signed by

Thomas W. Alexion, Project Manager  
Project Directorate IV-1  
Division of Reactor Projects III, IV and V  
Office of Nuclear Reactor Regulation

Original signed by

Sheri R. Peterson, Project Manager  
Project Directorate IV-1  
Division of Reactor Projects III, IV, and V  
Office of Nuclear Reactor Regulation

Enclosures:

- 1. Amendment No.146 to DPR-51
- 2. Amendment No.118 to NPF-6

cc w/enclosures:  
See next page

DISTRIBUTION:

Docket File	NRC/Local PDR	PD4-1 Reading
SPeterson(2)	CGrimes(13E4)	TQuay
PNoonan(2)	JCalvo(11F22)	TAlexion(2)
OGC(15B18)	DHagan(3206)	TWesterman,RIV
GHill(8)(P1-37)	WJones(7103)	PD4-1 Plant File
ACRS(10)(MSP315)	GPA/PA(MS2G5)	ARM/LFMB(MS4503)

OFC	:PD4-1/LA	:PD4-1/PE	:PD4-1/PM	:PD4-1/PM	:OGC	:PD4-1/D	:
NAME	:PNoonan	:WReckley	:TAlexion	:SPeterson	:TQuay	:	:
DATE	:4/19/91	:4/19/91	:4/17/91	:4/19/91	:4/14/91	:4/26/91	:



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

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Division of Reactor Projects III, IV, and V  
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 146 to DPR-51
2. Amendment No. 118 to NPF-6
3. Safety Evaluation

cc w/enclosures:  
See next page

Mr. Neil S. Carns  
Entergy Operations, Inc.

Arkansas Nuclear One, Units 1 & 2

cc:

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U.S. Nuclear Regulatory Commission  
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Honorable Joe W. Phillips  
County Judge of Pope County  
Pope County Courthouse  
Russellville, Arkansas 72801

Ms. Greta Dicus, Director  
Division of Environmental Health  
Protection  
Arkansas Department of Health  
4815 West Markam Street  
Little Rock, Arkansas 72201



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

ENERGY OPERATIONS, INC.

DOCKET NO. 50-313

ARKANSAS NUCLEAR ONE, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 146  
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 February 20, 1991, 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. DPR-51 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 146, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. The license amendment is effective 30 days from its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Theodore R. Quay, Director  
Project Directorate IV-1  
Division of Reactor Projects III, IV, and V  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: April 26, 1991

ATTACHMENT TO LICENSE AMENDMENT NO. 146

FACILITY OPERATING LICENSE NO. DPR-51

DOCKET NO. 50-313

Revise the following page of the Appendix "A" Technical Specifications with the attached page. The revised page is identified by Amendment number and contains vertical lines indicating the area of change.

REMOVE PAGE

118

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118

Table 6.2-1

## ARKANSAS NUCLEAR ONE

MINIMUM SHIFT CREW COMPOSITION #

## UNIT 1

LICENSE CATEGORY	ABOVE COLD SHUTDOWN	COLD AND REFUELING SHUTDOWNS
SOL	2	1*
OL	2	1
NON-LICENSED	3	1
SHIFT TECHNICAL ADVISOR	1	None required

\*Does not include the licensed Senior Reactor Operator or Senior Reactor Operator Limited to Fuel Handling, supervising refueling operations after the initial fuel loading.

#Shift crew composition may be less than the minimum requirements for a period of time not to exceed 2 hours in order to accommodate unexpected absence of on duty shift crew members provided immediate action is taken to restore the shift crew composition to within the minimum requirements of Table 6.2-1.

## Additional Requirements:

1. At least one licensed Operator shall be in the control room when fuel is in the reactor.
2. At least two licensed Operators shall be present in the control room during reactor start-up, scheduled reactor shutdown and during recovery from reactor trips.
3. An individual qualified in radiation protection procedures shall be on site when fuel is in the reactor.
4. All refueling operations after the initial fuel loading shall be directly supervised by either a licensed Senior Reactor Operator or Senior Reactor Operator Limited to Fuel Handling who has no other concurrent responsibilities during this operation.
5. At least 5 individuals with fire protection training shall be maintained onsite at all times. These individuals shall not include the minimum shift crew necessary for safe shutdown of the unit (2 members) or any personnel required for other essential functions during a fire emergency.



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

ENTERGY OPERATIONS, INC.

DOCKET NO. 50-368

ARKANSAS NUCLEAR ONE, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 118  
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 February 20, 1991, 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.

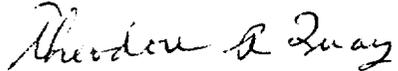
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and Paragraph 2.C.(2) of Facility Operating License No. NPF-6 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 118, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. The license amendment is effective 30 days from its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Theodore R. Quay, Director  
Project Directorate IV-1  
Division of Reactor Projects III, IV, and V  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: April 26, 1991

ATTACHMENT TO LICENSE AMENDMENT NO. 118

FACILITY OPERATING LICENSE NO. NPF-6

DOCKET NO. 50-368

Revise the following page of the Appendix "A" Technical Specifications with the attached page. The revised page is identified by Amendment number and contains vertical lines indicating the area of change.

REMOVE PAGE

6-4

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6-4

TABLE 6.2-1

MINIMUM SHIFT CREW COMPOSITION #

LICENSE CATEGORY	APPLICABLE MODES	
	1, 2, 3 & 4	5 & 6
SOL	2	1*
OL	2	1
Non-Licensed	3	1
Shift Technical Advisor	1	None Required

\*Does not include the licensed Senior Reactor Operator or Senior Reactor Operator Limited to Fuel Handling, supervising CORE ALTERATIONS.

#Shift crew composition may be less than the minimum requirements for a period of time not to exceed 2 hours in order to accommodate unexpected absence of on duty shift crew members provided immediate action is taken to restore the shift crew composition to within the minimum requirements of Table 6.2-1.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NOS. 146 AND 118 TO

FACILITY OPERATING LICENSE NOS. DPR-51 AND NPF-6

ENTERGY OPERATIONS, INC.

ARKANSAS NUCLEAR ONE, UNIT NOS. 1 AND 2

DOCKET NOS. 50-313 AND 50-368

1.0 INTRODUCTION

By letter dated February 20, 1991, Entergy Operations, Inc. (the licensee) submitted a request for changes to the Arkansas Nuclear One, Unit Nos. 1 and 2 (ANO-1&2), Technical Specifications (TS). The requested changes would revise Table 6.2-1 of the administrative section of the ANO-1&2 TS to increase the required number of licensed senior reactor operators from one to two and the number of non-licensed operators from two to three, when either unit is in a mode above cold shutdown.

2.0 BACKGROUND

10 CFR 50.54 specifies the staffing requirements for licensed reactor operators and senior reactor operators (SROs) for various combinations of units located at a facility and unit operating conditions. The required number of SROs for a two-unit facility with two control rooms (such as ANO-1&2) is three for both units if both units are above cold shutdown. However, this licensee requested and received an exemption from the 10 CFR 50.54 requirements until such time as additional SROs became available.

By letter dated February 20, 1991, the licensee stated that an increase in the number of personnel on shift (as discussed above) is appropriate to address the differences between the designs of ANO-1&2 and lessons learned by recent evaluations of staffing requirements. These changes have been implemented by the licensee and, for consistency, the TS are being revised accordingly.

3.0 EVALUATION

The proposed changes associated with the number of SROs for ANO-1&2 result in the facility having the required licensed staffing of two single unit facilities. Although, this may be conservative with respect to 10 CFR 50.54, the design differences between the two units justify the requirements for two SROs at each unit. The proposed TS revisions increasing the required number of non-licensed operators from two to three is based upon the licensee's verification and validation process associated with Emergency Operating Procedures. This evaluation and resultant revision are in response to NRC observations documented in Inspection Report 50-368/90-01. The validation and verification process and proposed TS revisions are deemed by the staff to be an adequate response to the inspection findings.

Based upon its review, the staff agrees that the increase in the required staffing levels during operation of the ANO units is appropriate. Therefore, the staff finds the licensee's proposed TS changes to be 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 comment.

#### 5.0 ENVIRONMENTAL CONSIDERATION

The amendments change 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 in surveillance requirements. The NRC staff has determined that the amendments involve 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 amendments involve no significant hazards consideration and there has been no public comment on such finding (56 FR 11779). Accordingly, the amendments meet 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 amendments.

#### 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 amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: W. Reckley, NRR

Date: April 26, 1991