

Docket Nos. 50-313  
and 50-368

May 5, 1992

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. 160 AND 135 TO FACILITY OPERATING LICENSE  
NOS. DPR-51 AND NPF-6 - ARKANSAS NUCLEAR ONE, UNITS 1 AND 2  
(TAC NOS. M82678 AND M82679)

The Commission has issued the enclosed Amendment Nos. 160 and 135 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 (TS) in response to your application dated  
January 21, 1992.

The ANO-1 amendment revises the TS by adding a measurement range to the  
seismic monitoring instrumentation requirements and corrects an error in  
component nomenclature. The other amendment corrects a typographical error in  
the measurement range for ANO-2 seismic monitor 2XR-8347.

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: *Sheri R. Peterson*  
*for* Thomas W. Alexion, Project Manager  
Project Directorate IV-1  
Division of Reactor Projects III/IV/V  
Office of Nuclear Reactor Regulation

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

Enclosures:

- 1. Amendment No. 160 to DPR-51
- 2. Amendment No. 135 to NPF-6
- 3. Safety Evaluation

cc w/enclosures:  
See next page

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ACRS(10)	D. Hagan(MS7103)	T. Westerman,RIV	OC/LFMB
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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555

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The Commission has issued the enclosed Amendment Nos. 160 and 135 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 (TS) in response to your application dated January 21, 1992.

The ANO-1 amendment revises the TS by adding a measurement range to the seismic monitoring instrumentation requirements and corrects an error in component nomenclature. The other amendment corrects a typographical error in the measurement range for ANO-2 seismic monitor 2XR-8347.

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.

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*Sheri R. Peterson*

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

*Sheri R. Peterson*

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

Enclosures:

1. Amendment No. 160 to DPR-51
2. Amendment No. 135 to NPF-6
3. Safety Evaluation

cc w/enclosures:  
See next page

Mr. Neil S. Carns  
Arkansas Nuclear One, Units 1 & 2

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Arkansas Department of Health  
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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. 160  
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 January 21, 1992, 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. 160, 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.

FOR THE NUCLEAR REGULATORY COMMISSION



John T. Larkins, Director  
Project Directorate IV-1  
Division of Reactor Projects III/IV/V  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: May 5, 1992

ATTACHMENT TO LICENSE AMENDMENT NO. 160

FACILITY OPERATING LICENSE NO. DPR-51

DOCKET NO. 50-313

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

REMOVE PAGES

42b

72b

INSERT PAGES

42b

72b

3.5.1.13 The Seismic Monitoring Instrumentation shall be operable with a minimum measurement range of 0.01 - 1.0 g for Triaxial Time - History Accelerographs, 0.05 - 1.0 g for Triaxial Peak Accelerographs, and 2-25.4 Hz for Triaxial Response Spectrum Recorders.

Table 4.1-1 (Cont.)

<u>Channel Description</u>	<u>Check</u>	<u>Test</u>	<u>Calibrate</u>	<u>Remarks</u>
b. Triaxial Peak Accelerographs				
1. 2XR-8347, Unit 2 Containment Base Slab, Elev. 336'6"	NA	NA	R	
2. 2XR-8348, Unit 2 Primary Shield O/S Reactor Cavity, Elev. 366'3"	NA	NA	R	
3. 2XR-8349, Unit 2 Top of Containment, Elev. 531'6"	NA	NA	R	
c. Triaxial Response-Spectrum Recorders				
1. 2XR-8350, Unit 2 Containment, Base Slab, Elev. 335'6" (O/S Containment)	NA	R	R	
43. ESAS Manual Trip Functions				
a. Switches & Logic	NA	R	NA	
b. Logic	NA	M	NA	
44. Reactor Manual Trip	NA	P	NA	
45. Reactor Building Sump Level	NA	NA	R	
46. EFW Flow Indication	M	NA	R	



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

ENERGY OPERATIONS, INC.

DOCKET NO. 50-368

ARKANSAS NUCLEAR ONE, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 135  
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 21, 1992, 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.

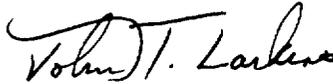
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and Paragraph 2.C.(2) of Facility Operating License No. NPF-6 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 135, 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.

FOR THE NUCLEAR REGULATORY COMMISSION



John T. Larkins, Director  
Project Directorate IV-1  
Division of Reactor Projects III/IV/V  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: May 5, 1992

ATTACHMENT TO LICENSE AMENDMENT NO. 135

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 a vertical line indicating the area of change. The corresponding overleaf page is also provided to maintain document completeness.

REMOVE PAGE

3/4 3-31

INSERT PAGE

3/4 3-31

TABLE 3.3-7

SEISMIC MONITORING INSTRUMENTATION

<u>INSTRUMENTS AND SENSOR LOCATIONS</u>	<u>MEASUREMENT RANGE</u>	<u>MINIMUM INSTRUMENT OPERABLE</u>
1. Triaxial Time-History Accelerographs		
a. ACS-8001, Unit 1 Containment Base Slab, Elev. 335'*	0.01-1.0g	1
b. ACS-8002, Unit 1 Top of Containment, Elev. 531'6"	0.01-1.0g	1
2. Triaxial Peak Accelerographs		
a. 2XR-8347, Containment Base Slab, Elev. 336'6"	0.05-1.0g	1
b. 2XR-8348, Primary Shield O/S Reactor Cavity, Elev. 366'3"	0.05-1.0g	1
c. 2XR-8349, Top of Containment, Elev. 531'6"	0.05-1.0g	1
3. Triaxial Response-Spectrum Recorders		
a. 2XR-8350, Containment Base Slab, Elev. 335'6" (O/S Containment)	2-25.4 Hz	1

\*With Unit 1 control room indication/or alarm

TABLE 4.3-4

SEISMIC MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>INSTRUMENTS AND SENSOR LOCATIONS</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>
1. Triaxial Time-History Accelerographs			
a. ACS-8001, Unit 1 Containment Base Slab, Elev. 335'**	M* M*	R R	SA SA
b. ACS-8002, Unit 1 Top of Containment Elev. 531'6"	M*	R	SA
2. Triaxial Peak Accelerographs			
a. 2XR-8347, Containment Base Slab, Elev. 336'6"	NA	R	NA
b. 2XR-8348, Primary Shield O/S Reactor Cavity, Elev. 366'3"	NA	R	NA
c. 2XR-8349, Top of Containment, Elev. 531'6"	NA	R	NA
3. Triaxial Response-Spectrum Recorders			
a. 2XR-8350, Containment Base Slab, Elev. 335'6" (O/S Containment)	NA	R	R

\* Except seismic trigger

\*\* With Unit 1 control room indication

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NOS. 160 AND 135 TO

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

ENERGY OPERATIONS, INC.

ARKANSAS NUCLEAR ONE, UNIT NOS. 1 AND 2

DOCKET NOS. 50-313 AND 50-368

1.0 INTRODUCTION

By letter dated January 21, 1992, 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 the ANO-1 TS by adding a measurement range to the seismic monitoring instrumentation requirements and correct an error in component nomenclature. Additionally, a typographical error in the measurement range for ANO-2 seismic monitor 2XR-8347 is corrected.

2.0 EVALUATION

The Triaxial Peak Accelerograph 2XR-8347 at ANO-2 is currently listed as having a range of .01-1.0g. This range is inconsistent with design and technical documents as well as with other triaxial peak accelerograph ranges of .05-1.0g. Ranges of .05-1.0g were submitted on March 23, 1976, for each of the triaxial peak accelerographs with the initial markup of the CE-STs. This amendment corrects an apparent typographical error by changing the range of Accelerograph 2XR-8347 to .05-1.0g.

ANO-1 TS 3.5.1.13 provides minimum measurement ranges for different types of seismic monitoring instrumentation. Currently, the range for triaxial peak accelerographs in use at ANO-1 is not provided. This amendment adds a range of .05-1.0g consistent with ANO-2 TS. In addition, the nomenclature for Triaxial Peak Accelerograph 2XR-8347 is listed as 2XR-8437. This typographical error is corrected.

The changes proposed by this amendment correct typographical errors and eliminate potential misinterpretation of the requirements. The staff concludes that these changes are administrative in nature and are acceptable.

3.0 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.

#### 4.0 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. 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 (57 FR 7810). 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.

#### 5.0 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: R. Twigg

Date: May 5, 1992