

November 21, 1990

Docket No. 50-313

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 NO. 139 TO FACILITY OPERATING LICENSE  
NO. DPR-51 - ARKANSAS NUCLEAR ONE, UNIT NO. 1 (TAC NO. 77642)

The Commission has issued the enclosed Amendment No. 139 to Facility Operating License No. DPR-51 for the Arkansas Nuclear One, Unit No. 1 (ANO-1). This amendment consists of changes to the Technical Specifications (TSs) in response to your application dated September 20, 1990, as supplemented by letter dated October 19, 1990.

The amendment changes TS Surveillance Requirement (SR) 4.6.1.5 by replacing the existing requirement to periodically (once every 18 months) verify the charging capability of each Emergency Diesel Generator (EDG) starting air compressor with a requirement to periodically (once every 31 days) verify that the starting air receiver tanks are at or above the required minimum pressure.

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 P.O'CONNOR

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

Enclosures:

- 1. Amendment No. 139 to DPR-51
- 2. Safety Evaluation

cc w/enclosures:  
See next page

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Docket File	NRC/LOCAL PDR	PDIV-1 Reading
LBerry	OGC (MS15B18)	GPA/PA (MS2G5)
TAlexion(2)	ACRS (10)(P315)	GHill (4)
TQuay	JCalvo(MS11F22)	DHagan(MS3206)
MVirgilio	TWesterman, RIV	ARM/LFMB(MS4503)
PDIV-1 Plant File	WJones (MS7103)	

\*SEE PREVIOUS CONCURRENCES

*changed Per OGC request 11/21/90 pwr for TA*

OFC	:PD4-1/LA *	:PD4-1/PM *	:OGC *	:PD4-1/10 (A)	:	:
NAME	:LBerry	:TAlexion:lh	:CBarth	:TQuay	:	:
DATE	:11/ 6/90	:11/ 7/90	:11/ 9/90	11/21/90	:	:

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

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Sincerely,

*Paul W. Alexion for T.A.*

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

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2. Safety Evaluation

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See next page

Mr. Neil S. Carns  
Entergy Operations, Inc.

Arkansas Nuclear One, Unit 1

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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. 139  
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 September 20, 1990, as supplemented October 19, 1990, 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.

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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. 139, 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

  
Theodore R. Quay, 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: November 21, 1990

ATTACHMENT TO LICENSE AMENDMENT NO. 139

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 pages is identified by Amendment number and contains a vertical line indicating the area of change.

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e. Diesel fuel from the emergency storage tank shall be sampled and found to be within acceptable limits specified in Table 1 of ASTM D975-68 when checked for viscosity, water, and sediment.

5. Once every 31 days the pressure in the required starting air receiver tanks shall be verified to be  $\geq 175$  psig.

Once every 18 months, the capacity of each diesel oil transfer pump shall be verified to be at least 10 gpm.

#### 4.6.2 Station Batteries and Switchyard Batteries

1. The voltage, temperature and specific gravity of a pilot cell in each bank and the overall battery voltage of each bank shall be measured and recorded daily.
2. Measurements shall be made quarterly of voltage of each cell to the nearest 0.01 volt, of the specific gravity of each cell, and of the temperature of every fifth cell in each bank. The level of the electrolyte shall be checked and adjusted as required. All data, including the amount of water added to any cell, shall be recorded.
3. Once every 18 months, a performance discharge test shall be conducted in accordance with the manufacturer's instructions, the purpose of determining battery capacity.
4. Any battery charger which has not been loaded while connected to its 125V d-c distribution system for at least 30 minutes during every quarter shall be tested and loaded while connected to its bus for 30 minutes. The third battery charger, which is capable of being connected to either of the two 125V d-c distribution systems, shall be loaded while connected to each bus for at least 30 minutes every quarter.

#### 4.6.3 Emergency Lighting

The correct functioning of the emergency lighting system shall be verified once every 18 months.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 139 TO

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 September 20, 1990, as supplemented by letter dated October 19, 1990, Entergy Operations, Inc. (the licensee) requested an amendment to the Technical Specifications (TSs) appended to Facility Operating License No. DPR-51 for Arkansas Nuclear One, Unit No. 1 (ANO-1). The proposed amendment would change TS Surveillance Requirement (SR) 4.6.1.5 by replacing the existing requirement to periodically (once every 18 months) verify the charging capability of each Emergency Diesel Generator (EDG) starting air compressor with a requirement to periodically (once every 31 days) verify that the starting air receiver tanks are at or above the required minimum pressure.

2.0 BACKGROUND

The licensee is performing modifications to the starting air systems for the EDGs during the ongoing refueling outage. The modifications are intended to increase the overall reliability of the starting air systems. As part of the modifications, the existing air receivers will be replaced with new and larger air receivers (i.e., each new receiver capacity is 83 cubic feet compared to the old receiver capacity of 32 cubic feet).

The existing ANO-1 Technical Specification (TS) Surveillance Requirement (SR) 4.6.1.5 requires periodic (18 month) verification of the capability of each starting air compressor to charge the air receivers from 0 to 225 psig within 2 hours. The new EDG starting system will operate at a lower nominal system pressure. However, because of its increased capacity, it will require longer to charge. The licensee has determined that this specific SR is no longer necessary. They consider periodic verification of actual starting air receiver pressure to be a more appropriate way of assuring the ability of the starting air system to perform its function of starting the EDG. Accordingly, by letter dated September 20, 1990, the licensee submitted a request to change the ANO-1 TS. The licensee's October 19, 1990 supplement provided additional clarifying information regarding the background and post-modification testing of the EDG starting air system.

### 3.0 EVALUATION

The starting air system for each EDG consists of two sets of air starter motors. The air required for each starter motor is supplied from a pair of air receivers which are maintained at a predetermined minimum pressure by a dedicated air compressor. The receivers should have sufficient capacity for five EDG starts in accordance with the guidelines described in Standard Review Plan, Section 9.5.6, "Emergency Diesel Engine Starting System."

Existing TS Section 4.6.1.5 states: "Once every 18 months, the capacity of each starting air compressor to charge air receivers from 0 - 225 psig within 2 hours shall be verified."

The proposed TS change will revise Section 4.6.1.5 to state: "Once every 31 days the pressure in the starting air receiver tanks shall be verified to be greater than 175 psig."

The licensee has performed an analysis to demonstrate that by maintaining a minimum air receiver pressure of 175 psig, there will be enough air for five EDG starts as described in SRP 9.5.6. In addition, by letter dated October 19, 1990, the licensee stated that the post-modification testing of the EDG starting air system will verify that the design capacity of the starting air receivers can fulfill the recommended five start capability.

Based on its review, the staff agrees with the licensee that periodic verification of actual starting air receiver pressure is a more appropriate way of assuring the ability of the starting air system to perform its function of starting the EDG. Therefore, the staff finds that the licensee's proposed TS change is acceptable.

### 4.0 ENVIRONMENTAL CONSIDERATION

The amendment involves a change in a requirement with respect to the 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 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 exposures. 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. Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR Section 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.

## 5.0 CONCLUSION

The staff 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, and (2) such activities will be conducted in compliance with the Commission's regulations, and the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Dated: November 21, 1990

Principal Contributor: D. Shum, SPLB