September 9, 1991

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. 150 TO FACILITY OPERATING LICENSE NO. DPR-51 - ARKANSAS NUCLEAR ONE, UNIT NO. 1 (TAC NO. 80882)

The Commission has issued the enclosed Amendment No. 150 to Facility Operating License No. DPR-51 for the Arkansas Nuclear One, Unit No. 1 (ANO-1). This amendment consists of a change to the Technical Specifications (TSs) in response to your application dated June 18, 1991.

The amendment revises Technical Specification 3.5.1.4 by adding the wording "...except during channel testing." The revision allows use of the shutdown bypass switch when testing the Reactor Protection System channels during power operation.

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

Enclosures: 1. Amendment No. 150 to DPR-51

2. Safety Evaluation

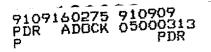
cc w/enclosures: See next page

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NRC/Local PDR P. Noonan G. Hill(4) PD4-1 Plant File T. Westerman,RIV PD4-1 Reading OGC(MS15B18) T. Alexion (2) GPA/PA(MS2G5) Wanda Jones(MS7103) RTwigg ACRS(10) (MSP315) T. Quay

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OFFICIAL RECORD COPY Document Name: ANO1 AMEND/80882





UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555

September 9, 1991

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Sincerely.

homas W. alexion

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

Enclosures:

Amendment No. 150 to DPR-51 1. 2.

Safety Evaluation

cc w/enclosures: See next page

Mr. Neil S. Carns Entergy Operations, Inc.

cc:

Mr. Donald C. Hintz Executive Vice President and Chief Operating Officer Entergy Operations, Inc. P. O. Box 31995 Jackson, Mississippi 39286

Mr. Jerry Yelverton Director Nuclear Operations Arkansas Nuclear One Route 3 Box 137G Russellville, Arkansas 72801

Mr. Nicholas S. Reynolds Winston & Strawn 1400 L Street, N.W. Washington, D.C. 20005-3502

Mr. Robert B. Borsum Babcock & Wilcox Nuclear Power Generation Division 1700 Rockville Pike, Suite 525 Rockville, Maryland 20852

Senior Resident Inspector U.S. Nuclear Regulatory Commission 1 Nuclear Plant Road Russellville, Arkansas 72801

Regional Administrator, Region IV U.S. Nuclear Regulatory Commission Office of Executive Director for Operations 611 Ryan Plaza Drive, Suite 1000 Arlington, Texas 76011

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 Arkansas Nuclear One, Unit 1

Mr. Gerald Muench Vice President Operations Support Entergy Operations, Inc. P. O. Box 31995 Jackson, Mississippi 39286

Mr. Robert B. McGehee Wise, Carter, Child & Caraway P. O. Box 651 Jackson, Mississippi 39205

Mr. Tom W. Nickels Arkansas Nuclear One Route 3, Box 137G Russellville, Arkansas 72801

Admiral Kinnaird R. McKee, USN (Ret) Post Office Box 41 Oxford, Maryland 21654



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

ENTERGY OPERATIONS INC.

DOCKET NO. 50-313

ARKANSAS NUCLEAR ONE, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 150 License No. DPR-51

- The Nuclear Regulatory Commission (the Commission) has found that: 1.
 - The application for amendment by Entergy Operations, Inc. (the Α. licensee) dated June 18, 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;
 - Β. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission:
 - С. 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;
 - The issuance of this license amendment will not be inimical to the D. common defense and security or to the health and safety of the public; and
 - Ε. 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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- 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. 150, 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 the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Robert A Gramme For /

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: September 9, 1991

ATTACHMENT TO LICENSE AMENDMENT NO. 150

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 a vertical line indicating the area of change.

REMOVE PAGE

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42

42

3.5 INSTRUMENTA', A SYSTEMS

3.5.1 <u>Operational Safety Instrumentation</u>

Applicability

Applies to unit instrumentation and control systems.

Objectives

To delineate the conditions of the unit instrumentation and safety circuits necessary to assure reactor safety.

Specifications

- 3.5.1.1 Startup and operation are not permitted unless the requirements of Table 3.5.1-1, columns 3 and 4 are met.
- 3.5.1.2 In the event the number of protection channels operable falls below the limit given under Table 3.5.1-1, Columns 3 and 4, operation shall be limited as specified in Column 5.
- 3.5.1.3 For on-line testing or in the event of a protection instrument or channel failure, a key operated channel bypass switch associated with each reactor protection channel will be used to lock the channel trip relay in the untripped state as indicated by a light. Only one channel shall be locked in this untripped state at any one time. Only one channel bypass key shall be accessible for use in the control room.
- 3.5.1.4 The key operated shutdown bypass switch associated with each reactor protection channel shall not be used during reactor power operation except during channel testing.

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- 3.5.1.5 During startup when the intermediate range instruments come on scale, the overlap between the intermediate range and the source range instrumentation shall not be less than one decade. If the overlap is less than one decade, the flux level shall be maintained in the source range until the one decade overlap is achieved.
- 3.5.1.6 In the event that one of the trip devices in either of the sources supplying power to the control rod drive mechanisms fails in the untripped state, the power supplied to the rod drive mechanisms through the failed trip device shall be manually removed within 30 minutes following detection. The condition will be corrected and the remaining trip devices shall be tested within eight hours following detection. If the condition is not corrected and the remaining trip devices are not tested within the eight-hour period, the reactor shall be placed in the hot shutdown condition within an additional four hours.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 150 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 June 18, 1991, Entergy Operations, Inc. (the licensee) submitted a request for a change to the Arkansas Nuclear One, Unit No. 1 (ANO-1) Technical Specifications (TSs). The requested change would revise TS 3.5.1.4 by adding the words "...except during channel testing" to the end of the requirement. The revision allows for use of the shutdown bypass switch in each of the Reactor Protection System's (RPS) four channels when RPS channel testing is conducted during power operation.

2.0 EVALUATION

Each RPS channel contains a shutdown logic circuit that requires use of the shutdown bypass switch for testing. During RPS channel testing, the channel is rendered inoperable by placing the channel bypass switch in the bypass position. As a result, the operation of the shutdown bypass switch located in the channel will have no effect on the output of the RPS channel.

Protection against inadvertent positioning of either switch is provided by alarms and an interlock. The channel bypass switch and the shutdown bypass switch are key operated with the channel bypass switch interlocked to prevent more than one RPS channel being bypassed at any time. Both switches are provided with alarms and lights to indicate when the bypass switches are being used.

Based upon its review, the staff concludes that operation of the shutdown bypass switch while testing the RPS channel during power operation poses no increased safety risk. Therefore the requested change to TS 3.5.1.4 is 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 comments.

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4.0 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 in 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 (56 FR 37579). 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.

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

Principal Contributor: R. Twigg

Date: September 9, 1991