

June 9, 1995

Mr. Jerry W. Yelverton,
Vice President, Operations ANO
Entergy Operations, Inc.
1448 S. R. 333
Russellville, AR 72801

SUBJECT: ISSUANCE OF AMENDMENT NO. 182 TO FACILITY OPERATING LICENSE
NO. DPR-51 - ARKANSAS NUCLEAR ONE, UNIT NO. 1 (TAC NO. M92304)

Dear Mr. Yelverton:

The Commission has issued the enclosed Amendment No. 182 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 May 15, 1995, as supplemented by letters dated May 19 and June 7, 1995.

The amendment was processed as an exigent amendment following issuance of a notice of enforcement discretion (NOED) by NRC letter dated May 17, 1995. The NOED and exigent TS amendment authorize the licensee to continue operating the reactor at power while the service water flow to the reactor building emergency coolers is less than the TS surveillance criteria.

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:

George Kalman, Senior Project Manager
Project Directorate IV-1
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Docket No. 50-313

Enclosures: 1. Amendment No. 182 to DPR-51
2. Safety Evaluation

cc w/encls: See next page

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NOTE changes

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

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Entergy Operations, Inc.
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Sincerely,

A handwritten signature in black ink that reads "George Kalman".

George Kalman, Senior Project Manager
Project Directorate IV-1
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Docket No. 50-313

Enclosures: 1. Amendment No. 182 to DPR-51
2. Safety Evaluation

cc w/encls: See next page

Mr. Jerry W. Yelverton
Entergy Operations, Inc.

Arkansas Nuclear One, Unit 1

cc:

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Russellville, AR 72801



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001
ENERGY OPERATIONS INC.

DOCKET NO. 50-313

ARKANSAS NUCLEAR ONE, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 182
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 May 15, 1995, as supplemented by letters dated May 19 and June 7, 1995, 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. 182, 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



George Kalman, Senior Project Manager
Project Directorate IV-1
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical
Specifications

Date of Issuance: June 9, 1995

ATTACHMENT TO LICENSE AMENDMENT NO. 182

FACILITY OPERATING LICENSE NO. DPR-51

DOCKET NO. 50-313

Replace 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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4.5.2 Reactor Building Cooling Systems

Applicability

Applies to testing of the reactor building emergency cooling systems.

Objective

To verify that the reactor building emergency cooling systems are operable.

Specification

4.5.2.1 System Tests

4.5.2.1.1 Reactor Building Spray System

- (a) Once every 18 months, a system test shall be conducted to demonstrate proper operation of the system. A test signal will be applied to demonstrate actuation of the reactor building spray system (except for reactor building inlet valves to prevent water entering nozzles).
- (b) Station compressed air or smoke will be introduced into the spray headers to verify the availability of the headers and spray nozzles at least every five years.
- (c) The test will be considered satisfactory if visual observation and control board indication verifies that all components have responded to the actuation signal properly.

4.5.2.1.2 Reactor Building Cooling System

- (a) At least once per 14 days, each reactor building emergency cooling train shall be tested to demonstrate proper operation of the system. The test shall be performed in accordance with the procedure summarized below:
 - (1) Verifying a service water flow rate of \geq 1200 gpm to each train of the reactor building emergency cooling.¹
 - (2) Addition of a biocide to the service water during the surveillance in 4.5.2.1.2.a.1 above, whenever service water temperature is between 60F and 80F.
- (b) At least once per 31 days, each reactor building emergency cooling train shall be tested to demonstrate proper operation of the system. The test shall be performed in accordance with the procedure summarized below:
 - (1) Starting (unless already operating) each operational cooling fan from the control room.

¹ Surveillance Requirement 4.5.2.1.2(a)(1) will not be performed on the green train of the reactor building emergency cooling system until cooling fan VSF-1D is repaired and the green train is returned to normal configuration. This note will remain in effect until July 14, 1995.



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 182 TO

FACILITY OPERATING LICENSE NO. DPR-51

ENERGY OPERATIONS, INC.

ARKANSAS NUCLEAR ONE, UNIT NO. 1

DOCKET NO. 50-313

1.0 INTRODUCTION

By letter dated May 15, 1995, as supplemented by letters dated May 19 and June 7, 1995, Entergy Operations, Inc. (the licensee) submitted a request for changes to the Arkansas Nuclear One, Unit No. 1 (ANO-1) Technical Specifications (TSs). The letters dated May 19 and June 7, 1995, included changes to the original submittal, but did not change the initial proposed no significant hazards consideration determination. The requested changes evolved from a Notice of Enforcement Discretion (NOED) that was issued by NRC letter dated May 17, 1995. The NOED was requested by the licensee after cooling fan VSF-1D in the green train of the reactor building emergency cooling system failed, rendering one of the two cooling units in that train inoperable.

2.0 BACKGROUND

The reactor building emergency cooling system is designed to remove heat from the reactor building following a loss-of-coolant accident (LOCA). In this capacity, the reactor building spray system is redundant to the reactor building emergency cooling system.

The ANO-1 reactor building emergency cooling system consists of two trains, designated as the red and green trains. Each train includes two reactor building cooling units (RBCUs), and each RBCU has its own fan to circulate the reactor building atmosphere through cooling coils that are cooled by service water. Surveillance 4.5.2.1.2 of the ANO-1 TSs requires verification that service water flow to each train of reactor building emergency cooling is not less than 1,200 gpm, and the TS Bases for Section 3.3 states that "other RBCU combinations may be justified by an engineering evaluation."

After fan VSF-1D failed to function, the licensee attempted to increase the heat removal capacity of the green train by rerouting all of the service water flow to the operable cooling unit. However, only 1139 gpm (corrected for accident conditions) could be achieved which did not satisfy the ANO-1 TS requirements. Consequently, the green train of the reactor building cooling

system was declared inoperable. The licensee entered a 7-day shutdown action statement. On May 12, 1995, the licensee requested enforcement discretion until an exigent TS amendment could be processed to address this situation. The NRC staff granted the enforcement discretion verbally and documented its rationale for this action in the NOED letter dated May 17, 1995.

The licensee's submittals of May 15 and May 19, 1995, requested permanent changes to the ANO-1 TS requirements for the RBCU service water flow rate. The staff determined that the licensee's submittals would require a prolonged review and suggested that an interim amendment would be better suited for the situation at hand. Consequently, on June 7, 1995, the licensee supplemented the amendment application to request an interim change to the TS requirements. Specifically, the licensee requested that the surveillance requirement for the green train of the reactor building cooling system be waived until repairs have been completed on fan VSF-1D, or until July 14, 1995, whichever occurs sooner.

3.0 EVALUATION

The licensee's submittals of May 15, May 19, and June 7, 1995, discuss evaluations and supporting calculations that have been completed to assess the heat removal capability of the reactor building cooling system assuming various reduced service water flow conditions. The licensee has concluded that a single RBCU can remove the design basis heat load with a service water flow rate of 1066 gpm to the operable cooling unit. The licensee's calculations assume the design basis service water temperature of 95°F, whereas the actual service water temperature is currently less than 80°F. Although the lake temperature will increase with the warmer summer weather, the water temperatures are expected to remain well within the conservative range with regard to the licensee's heat removal calculations during the period that the green train of the reactor building emergency cooling system is reconfigured. This represents a conservatism that can be credited for the interim period of plant operation that has been requested by the licensee.

Additionally, as discussed in the June 7, 1995, submittal, the licensee has committed to: (a) test the green train of the reactor building cooling system, consisting of the "C" cooler, bi-weekly to detect the potential for any degradation of service water flow that would result in reducing the heat removal capability below that assumed in the accident analysis, and (b) add biocide to the service water during the bi-weekly test whenever the service water temperature is between 60°F and 80°F. Given these considerations, the staff has concluded that amending the ANO-1 TS surveillance page that authorizes suspension of the green train reactor building emergency cooler flow surveillance until the circulating fan, VSF-1D, is repaired and the green train is returned to normal configuration, or until July 14, 1995, whichever occurs sooner, is acceptable.

4.0 EXIGENT CIRCUMSTANCES

The Commission's regulation, 10 CFR 50.91, contains provisions for issuance of amendments when the usual 30-day public notice period cannot be met. One type of special exception is an exigency. An exigency is a case where the staff

and licensee need to act promptly and the staff has determined that the amendment involves no significant hazards considerations.

Under such circumstances, the Commission notifies the public in one of two ways: by issuing a Federal Register notice providing an opportunity for hearing and allowing at least two weeks for prior public comments, or by issuing a press release discussing the proposed changes, using the local media. In this case, the Commission used the first approach.

The licensee submitted the request for amendment on May 15, 1995, as supplemented by letters dated May 19 and June 7, 1995. It was noticed in the Federal Register on May 22, 1995 (60 FR 27144), at which time the staff proposed a no significant hazards consideration determination. The licensee requested the staff to exercise enforcement discretion not to enforce compliance with TS surveillance requirement 4.5.2.1.2(c)(1) and that the staff process the license amendment on an exigent basis. The staff verbally approved the request for enforcement discretion on May 12, 1995, which was issued on May 17, 1995. This enforcement discretion is effective until the staff processes the exigent amendment. Due to time constraints, sufficient time was not available to permit the customary 30-day public notice in advance of this action.

Accordingly, pursuant to 10 CFR 50.91(a)(6), the Commission has determined that an exigent situation exists in that failure to act in a timely way will result in an unnecessary plant transient or may require plant shutdown. The cooling fan failure and reconfiguration of the reactor building emergency cooling system prevents completion of the TS surveillance that is required to be performed every 14 days. Without the exigent amendment, the licensee would be required to declare the reactor building emergency cooling system inoperable and shut down the reactor. Further, the Commission has determined that the exigent situation is not due to the failure of the licensee to act in a timely manner.

There were no public comments in response to the notice published in the Federal Register.

5.0 FINAL NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

The Commission's regulations in 10 CFR 50.92, states that the Commission may make a final determination that a license amendment involves no significant hazards considerations if operation of the facility in accordance with the amendment would not (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety.

The license amendment does not involve a significant increase in the probability or consequences of an accident previously evaluated. The amendment suspends a surveillance that verifies cooling water flow to the reactor building emergency cooling system. However, during the period the surveillance is suspended, alternate methods will be used to verify that the reactor building emergency cooling system is operable.

The license amendment does not create the possibility of a new or different kind of accident from any previously evaluated. The change to the reactor building emergency cooling system surveillance requirement does not alter the design, configuration, or method of operation of the plant.

The license amendment does not involve a significant reduction in the margin of safety. The license amendment reduces the required cooling water flow to the reactor building emergency cooling system. However, the flow reduction is not significant in terms of safety concerns. The reactor building emergency cooling system will remain fully operable.

Based upon the above consideration the staff concludes that the amendment meets the three criteria of 10 CFR 50.92. Therefore, the staff has made a final determination that the proposed amendment does not involve a significant hazards consideration.

6.0 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.

7.0 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 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 (60 FR 27144). 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.

8.0 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 Contributors: J. Tatum
G. Kalman

Date: June 9, 1995