

September 26, 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. 152 TO FACILITY OPERATING LICENSE
NO. DPR-51 - ARKANSAS NUCLEAR ONE, UNIT NO. 1 (TAC NO. 79870)

The Commission has issued the enclosed Amendment No. 152 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 February 20, 1991, as supplemented by letter dated August 6, 1991.

The amendment lowers the pressure range at which the automatic isolation of the decay heat removal system is verified, and clarifies the frequency of this surveillance from once every 18 months to once every refueling outage.

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,

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. 152 to DPR-51
- 2. Safety Evaluation

cc w/enclosures:
See next page

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Docket File	NRC/Local PDR	PD4-1 Reading	OGC(MS15B18)
M. Virgilio	P. Noonan	T. Alexion (2)	GPA/PA(MS2G5)
D. Hagan(MS3206)	G. Hill(4)	Wanda Jones(MS7103)	
C. Grimes(MS11E22)	PD4-1 Plant File	ACRS(10) (MSP315)	
ARM/LFMB(MS4503)	T. Westerman,RIV	T. Quay	

OFC : PD4-1/LA	: PD4-1/PM	: SRXB/BC	: OGC	: PD4-1/D	:	:
NAME : PNoonan	: TAlexion	: RJones	: EHOLLER	: TQuay	:	:
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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555

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Sincerely,

A handwritten signature in cursive script that reads "Thomas 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:

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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

cc:

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

Mr. John R. McGaha
Vice President, Operations Support
Entergy Operations, Inc.
P. O. Box 31995
Jackson, Mississippi 39286

Mr. Jerry Yelverton
General Manager, Plant Operations
Entergy Operations, Inc.
Route 3 Box 137G
Russellville, Arkansas 72801

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

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

Mr. James J. Fisicaro
Director, Licensing
Entergy Operations, Inc.
Route 3, Box 137G
Russellville, Arkansas 72801

Mr. Robert B. Borsum
Licensing Representative
B&W Nuclear Technologies
1700 Rockville Pike, Suite 525
Rockville, Maryland 20852

Admiral Kinnaird R. McKee, USN (Ret)
214 South Morris Street
Oxford, Maryland 21654

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

Mr. Charles B. Brinkman, Manager
Washington Nuclear Operations
ABB Combustion Engineering
Nuclear Power
12300 Twinbrook Parkway, Suite 330
Rockville, Maryland 20852

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 Radiation Control
and Emergency Management
Arkansas Department of Health
4815 West Markham Street
Little Rock, Arkansas 72205-3867



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.152
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, as supplemented by letter dated August 6, 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.

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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.152 , 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: September 26, 1991

ATTACHMENT TO LICENSE AMENDMENT NO. 152

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

72
73a

INSERT PAGES

72
73a

Table 4.1-1 (Cont.)

<u>Channel Description</u>	<u>Check</u>	<u>Test</u>	<u>Calibrate</u>	<u>Remarks</u>
30. Decay Heat Removal System Isolation Valve Automatic Closure and Interlock System	S(1)(2)	M(1) (3)	R	(1) Includes RCS Pressure Analog Channel (2) Includes CFT Isolation Valve Position (3) At least once every refueling shutdown, with Reactor Coolant System Pressure greater than or equal to 200 psig, but less than 300 psig, verify automatic isolation of the decay heat removal system from the Reactor Coolant System on high Reactor Coolant System pressure.
31. Turbine Overspeed Trip Mechanism	NA	R	NA	
32. Diesel Generator Protective Relaying Starting Interlocks and Circuitry	M	Q	NA	
33. Off-site Power Underage and Protective Relaying Interlocks and Circuitry	W	R(1)	R(1)	(1) Shall be tested during refueling shutdown to demonstrate selective load shedding interlocks function during manual or automatic transfer of Unit 1 auxiliary load to Startup Transformer No. 2.
34. Borated Water Storage Tank Level Indicator	W	NA	R	
35. Reactor Trip Upon Loss of Main Feedwater Circuitry	M	PC	R	

Table 4.1-2 (Cont.)

Minimum Equipment Test Frequency

<u>Item</u>	<u>Test</u>	<u>Frequency</u>
11. Decay Heat Removal System Isolation Valve Automatic Closure and Isolation System	Functioning	Each Refueling Shutdown
12. Flow Limiting Annulus on Main Feedwater Line at Reactor Building Penetration	Verify, at normal operating conditions, that a gap of at least 0.025 inches exists between the pipe and the annulus.	One year, two years, three years, and every five years thereafter measured from date of initial test.
13. Main Steam Isolation Valves	a. Exercise through approximately 10% travel	a. Quarterly
	b. Cycle	b. Every 18 months
14. Main Feedwater Isolation Valves	a. Exercise through approximately 5% travel	a. Quarterly
	b. Cycle	b. Every 18 months
15. Reactor Internals Vent Valves	Demonstrate operability by:	Each refueling shutdown.
	a. Conducting a remote visual inspection of visually accessible surfaces of the valve body and disc sealing faces and evaluating any observed surface irregularities.	
	b. Verifying that the valve is not stuck in an open position, and	
	c. Verifying through manual actuation that the valve is fully open with a force of ≤ 400 lbs (applied vertically upward).	



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 152 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 February 20, 1991, Entergy Operations, Inc. (the licensee) submitted a request for changes to the Arkansas Nuclear One, Unit No.1 (ANO-1), Technical Specifications (TSs). The requested changes would lower the pressure range at which the automatic isolation of the decay heat removal system (DHRS) from the reactor coolant system (RCS) is verified, and clarify the frequency of this surveillance from once every 18 months to once every refueling outage. The licensee's supplemental letter dated August 6, 1991, provided additional information regarding the appropriateness of the lower test pressure and the test methods, and did not change the proposed revisions to the TSs nor the initial proposed no significant hazards consideration determination.

2.0 EVALUATION

The licensee stated that the current TSs provide for surveillance testing of the DHRS isolation valve automatic closure and interlock function as follows, "shall also be tested during refueling shutdown prior to repressurization at a pressure greater than 300 but less than 420 psig." However, "during refueling shutdown" and "greater than 300 psig" are mutually exclusive. The staff notes that the RCS is depressurized during a refueling shutdown, and therefore agrees that the TS should be changed to correct this inconsistency.

The licensee also stated that the design pressure of the DHRS is 300 psig, and that an upper specified limit of 300 psig for the test is appropriate since this will protect the low pressure piping from an overpressure condition. The staff agrees that testing at the lower pressure is desirable from the standpoint that it will maximize the margin to overpressure.

Finally, the licensee stated that the DHRS motor operated isolation valves are not blowdown valves, and therefore are not required to isolate against line breaks. Therefore, their behavior is predictable and allows reliable extrapolation of test data from a reduced pressure. The licensee stated that calculations have been prepared and the valves are now set statically, to produce sufficient thrust as verified by diagnostic equipment for a pressure of 538 psid, which is well above the 400 psid upper automatic closure interlock setpoint. The staff agrees that based upon the information provided by the licensee, the valves will perform their intended function.

The staff also notes that ANO-1 is on an 18-month refueling outage schedule. The staff agrees that the change in the surveillance requirement wording from once every 18 months to once every refueling shutdown is editorial in nature.

Based on the above, the staff finds that the proposed amendment related to the verification of the automatic isolation of the DHRS 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.

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 13662). 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: T. Alexion, PDIV-1

Date: September 26, 1991