

April 18, 1990

Docket No. 50-313

Mr. Neil S. Carns
Vice President, Nuclear
Arkansas Power and Light Company
P. O. Box 551
Little Rock, Arkansas 72203

Dear Mr. Carns:

SUBJECT: ISSUANCE OF AMENDMENT NO. 130 TO FACILITY OPERATING LICENSE
NO. DPR-51 - ARKANSAS NUCLEAR ONE, UNIT 1 (TAC NO. 75254)

The Commission has issued the enclosed Amendment No. 130 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 October 19, 1989.

The amendment changes TS 3.2.1.2 regarding the required temperature for the piping and valves necessary to establish a flow path from the boric acid addition tank to the makeup system. The required temperature for the piping and valves is changed from a comparison to the tank temperature to a temperature of at least 10°F above the crystallization temperature for the concentration in the tank.

A copy of the Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's next biweekly Federal Register notice.

Sincerely,

/s/

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

Enclosures:

- 1. Amendment No. 130 to DPR-51
- 2. Safety Evaluation

cc w/enclosures:
See next page

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*See previous concurrences

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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
Division of Reactor Projects - III,
IV, V and Special Projects
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 130 to DPR-51
2. Safety Evaluation

cc w/enclosures:
See next page

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Arkansas Power & Light Company

Arkansas Nuclear One, Unit 1

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4815 West Markam Street
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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

ARKANSAS POWER AND LIGHT COMPANY

DOCKET NO. 50-313

ARKANSAS NUCLEAR ONE, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 130
License No. DPR-51

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Arkansas Power and Light Company (the licensee) dated October 19, 1989, 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, as amended, 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. 130, 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 after its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION


Frederick J. Hebbon, Director
Project Directorate IV
Division of Reactor Projects - III,
IV, V and Special Projects
Office of Nuclear Reactor Regulation

Attachment:
Charges to the Technical
Specifications

Date of Issuance: April 18, 1990

ATTACHMENT TO LICENSE AMENDMENT NO. 130

FACILITY OPERATING LICENSE NO. DPR-51

DOCKET NO. 50-313

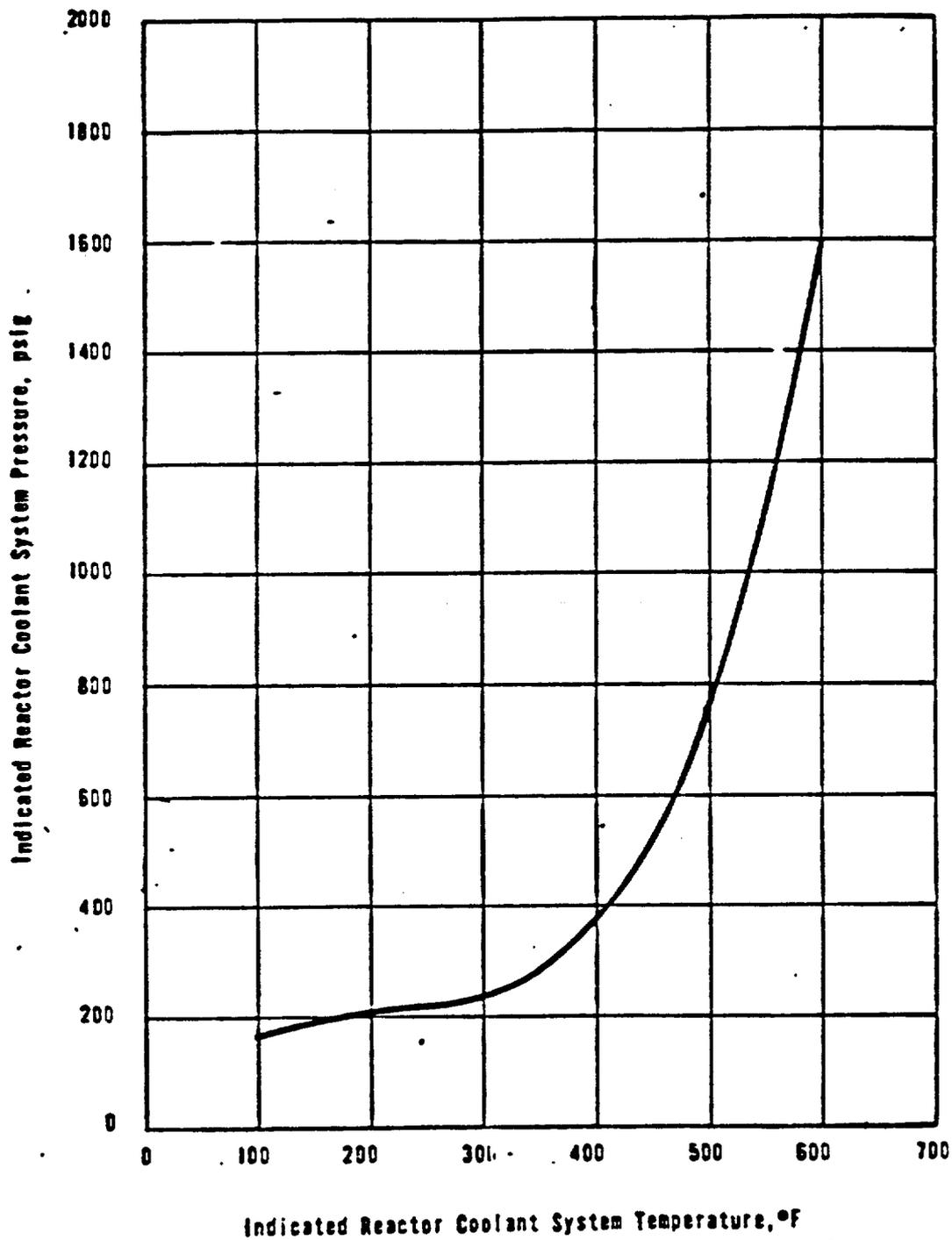
Revise the following page of the Appendix "A" Technical Specifications with the attached pages. The revised page is identified by Amendment number and contain vertical lines indicating the area of charge. The corresponding overleaf page is provided to maintain document completeness.

REMOVE PAGE

34

INSERT PAGE

34



ARKANSAS POWER & LIGHT CO.
 ARKANSAS NUCLEAR ONE-UNIT 1

LIMITING PRESSURE VS TEMPERATURE
 FOR CONTROL ROD DRIVE OPERATION
 WITH 100 STD CC/LITER H₂O

FIG. NO.
 3.1.9-1

3.2 MAKEUP AND CHEMICAL ADDITION SYSTEMS

Applicability

Applies to the operational status of the makeup and the chemical addition systems.

Objective

To provide for adequate boration under all operating conditions to assure ability to bring the reactor to a cold shutdown condition.

Specification

- 3.2.1 The reactor shall not be heated or maintained above 200°F unless the following conditions are met:
- 3.2.1.1 Two makeup pumps are operable except as specified in Specification 3.3.
- 3.2.1.2 A source of concentrated boric acid solution in addition to that in the borated water storage tank is available and operable. This requirement is fulfilled by the boric acid addition tank and one associated boric acid pump being operable. This tank shall contain at least the equivalent of the boric acid volume and concentration requirements of Figure 3.2-1 as boric acid solution with a temperature of at least 10°F above the crystallization temperature. System piping and valves necessary to establish a flow path from the tank to the makeup system shall also be operable and shall have a temperature of at least 10°F above the crystallization temperature for the concentration in the tank.
- 3.2.1.3 The boric acid addition tank and associated piping, valves and both pumps may be out of service for a maximum of 24 hours. After the 24 hour period, if the system is not returned to service and operable, the reactor shall be brought to the hot shutdown condition within an additional 12 hours.

Bases

The makeup system and chemical addition system provide control of the reactor coolant system boron concentration. (1) This is normally accomplished by using any of the three makeup pumps in series with a boric acid pump associated with the boric acid addition tank. The alternate method of boration will be the use of the makeup pumps taking suction directly from the borated water storage tank. (2)

The quantity of boric acid in storage from either of the two above mentioned sources is sufficient to borate the reactor coolant system to a 1% subcritical margin in the cold condition (200°F) at the worst time in core life with a stuck control rod assembly and after xenon decay.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 130 TO

FACILITY OPERATING LICENSE NO. DPR-51

ARKANSAS POWER AND LIGHT COMPANY

ARKANSAS NUCLEAR ONE, UNIT NO. 1

DOCKET NO. 50-313

INTRODUCTION

By letter dated October 19, 1989, Arkansas Power and Light Company (AP&L or the licensee) requested an amendment to the Technical Specifications (TSs) appended to Facility Operating License No. DPR-51 for Arkansas Nuclear One, Unit 1 (ANO-1). The proposed amendment would change TS 3.2.1.2 regarding the required temperature for the piping and valves necessary to establish a flow path from the boric acid addition tank to the makeup system. The required temperature for the piping and valves is changed from a comparison to the tank temperature to a temperature of at least 10°F above the crystallization temperature for the concentration in the tank.

EVALUATION

The purpose for TS 3.2.1.2 is to ensure that the boric acid addition tank (BAAT) and its associated piping and valves are kept at least 10°F above the crystallization temperature for the concentration present, to assure a flow of boric acid is available when needed. The current TS says that the BAAT temperature shall be at least 10°F above the crystallization temperature, and this is consistent with its purpose. However, the current TS also says that the system (associated) piping and valves shall have at least the same temperature as the BAAT. This may require an unnecessarily high temperature for the associated piping and valves if the BAAT is significantly more than 10°F above the crystallization temperature (i.e., in this instance the current TS would also require the temperature for the associated piping and valves to be significantly more than 10°F above the crystallization temperature). Therefore, the staff finds that the proposed TS are consistent with the purpose for TS 3.2.1.2, consistent with the current bases for TS 3.2.1.2, and adds clarity to TS 3.2.1.2. Accordingly, the proposed revision to TS 3.2.1.2 is acceptable.

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.

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.

Date: April 18, 1990

Principal Contributors: T. Alexion, PDIV