DMB-016

September 26, 1986

Docket No. 50-313

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Mr. Gene Campbell
Vice President, Nuclear
Operations
Arkansas Power and Light Company
P. O. Box 551
Little Rock, Arkansas 72203

Dear Mr. Campbell:

The Commission has issued the enclosed Amendment No. 101 to Facility Operating License No. DPR-51 for 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 21, 1986.

The amendment revises the TSs regarding the minimum level requirement for emergency feedwater (EFW) condensate storage tank T41B due to the substitution of the new seismically qualified, partially tornado protected EFW condensate storage tank T41B for the original non-seismic, non-tornado protected condensate storage tank as the primary EFW system water source.

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

Sincerely,

John E Ramsey

for Guy S. Vissing, Project Manager
PWR Project Directorate #6
Division of PWR Licensing-B

Enclosures:
1. Amendment No. 101 to DPR-51
2. Safety Evaluation

cc w/enclosures:
See next page

PBD-6	PBD-6	PBD-6	PBD-6	PBD-6	PBD-6	OGC
RIngram	JRamsey:jak	GVissing	CMcCracken	GEdison	JStolz	M'Grover
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cc:
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Honorable William Abernathy
County Judge of Pope County
Pope County Courthouse
Russellville, Arkansas 72801

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. 101
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 May 21, 1986, 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 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:

Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No.101 , are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

H E Edison for

John F. Stolz, Director
PWR Project Directorate #6
Division of PWR Licensing-B

Attachment:
Changes to the Technical
Specifications

Date of Issuance: September 26, 1986

ATTACHMENT TO LICENSE AMENDMENT NO. 101

FACILITY OPERATING LICENSE NO. DPR-51

DOCKET NO. 50-313

Replace 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	Insert
40	40
41a	41a

3.4 STEAM AND POWER CONVERSION SYSTEM

Applicability

Applies to the turbine cycle components for removal of reactor decay heat.

Objective

To specify minimum conditions of the turbine cycle equipment necessary to assure the capability to remove decay heat from the reactor core.

Specifications

3.4.1 The reactor shall not be heated, above 280°F unless the following conditions are met:

1. Capability to remove decay heat by use of two steam generators.

*2. Fourteen of the steam system safety valves are operable.

3. A minimum of 11.1 feet (107,000 gallons) of water is available in Tank T41B.

4. Both EFW pumps and their flow paths are operable.

5. Both main steam block valves and both main feedwater isolation valves are operable.

3.4.2 Initiate functions of the EFIC system which are bypassed at cold shutdown conditions shall have the following minimum operability conditions:

a. "low steam generator pressure" initiate shall be operable when the main steam pressure exceeds 750 psig.

b. "loss of 4 RC pumps" initiate shall be operable when neutron flux exceeds 10% power.

c. "main feedwater pumps tripped" initiate shall be operable when neutron flux exceeds 10% power.

* Except that during hydrotests, with the reactor subcritical, fourteen of the steam system safety valves may be gagged and two (one on each header), may be reset for the duration of the test, to allow the required pressure for the test to be attained.

pressure" initiate are the only shutdown bypasses to be manually initiated during cooldown. If reset is not done manually, they will automatically reset. Main feedwater pump trip bypass is automatically removed above 10% power.

In the event of loss of main feedwater, feedwater is supplied by the emergency feedwater pumps, one which is powered from an operable emergency bus and one which is powered from an operable steam supply system. Both EFW pumps take suction from tank T41B. Decay heat is removed from a steam generator by steam relief through the turbine bypass, atmospheric dump valves, or safety valves. Fourteen of the steam safety valves will relieve the necessary amount of steam for rated reactor power.

The minimum amount of water in tank T41B would be adequate for about 4.5 hours of operation. This is based on the estimate of the average emergency flow to a steam generator being 390 gpm. This operation time with the volume of water specified would not be reached, since the decay heat removal system could be brought into operation within 4 hours or less.

A portion of tank T41B is protected from tornado missiles. The protected volume is sufficient to provide a thirty minute supply of water. This thirty minute period is sufficient to allow manual operator action, if required, to transfer suction of the emergency feedwater pumps to service water.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 101 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 May 21, 1986, Arkansas Power and Light Company (AP&L or the licensee) requested 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 incorporate a revision to Technical Specification (TS) 3.4.1.3 regarding the minimum level requirement for the emergency feedwater (EFW) condensate storage tank (CST) and the corresponding bases by substitution of the existing non-seismic, non-tornado protected CST with the new seismically qualified, partially tornado protected EFW CST T41B as the primary EFW system water source.

DISCUSSION

The proposed TS changes the minimum level requirement for EFW CST T41B, while requiring the same minimum volume of water for operability of the EFW system as the current TS, thus the basis for the TS has not changed and sufficient water for reaching decay heat removal system operation is assured.

The licensee has also confirmed that the new tank satisfies the commitments made as part of the review performed under NUREG-0737, Item II.E.1.1, "Auxiliary Feedwater System Evaluation", for assuring a reliable EFW system. The licensee indicated that the new tank (1) is fully seismic Category I, (2) contains a tornado protected water volume sufficient to allow 30 minutes for operator action to transfer EFW suction supply to the service water system, (3) is provided with tornado protected level transmitters as part of the safety-grade level indication provision in the control room, and (4) contains locked open manual valves in the flow path to the EFW pumps.

EVALUATION

Based on the above, we concur with the proposed TS change in the minimum level requirement due to the substitution of the new qualified EFW CST T41B for the existing tank as the primary EFW system water source. We conclude that the existing TS basis for the minimum required water level in the new tank is still valid and assures proper EFW system operability pursuant to the criteria of NUREG-0737, Item II.E.1.1. The proposed change is, therefore, acceptable.

ENVIRONMENTAL CONSIDERATION

This amendment involves a change in the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. We have 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 this amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, this 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 this amendment.

CONCLUSION

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

Dated: September 26, 1986

Principal Contributors: J. Ramsey
J. Raval