

April 30, 1985

DLR  
DLC

Docket No. 50-368

Mr. John M. Griffin  
Senior Vice President  
Energy Supply  
Arkansas Power & Light Company  
P. O. Box 551  
Little Rock, Arkansas 72203

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Dear Mr. Griffin:

The Commission has issued the enclosed Amendment No. 65 to Facility Operating License No. NPF-6 for Arkansas Nuclear One, Unit No. 2. The amendment consists of changes to the Technical Specifications (TS) in response to your application dated December 21, 1984.

The amendment revises the steam generator low water level trip setpoints specified in Table 2.2-1 and Table 3.3-4 of the TS. Specifically, the reactor protective instrument trip setpoint and the Engineered Safety Feature Actuation System trip value for the steam generator low water level are being reduced from 46.7 to 23%. Similarly, the allowable values in these tables are being reduced by the same magnitude from 45.811% to 22.111%.

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

Sincerely,

/S/

Robert Lee, Project Manager  
Operating Reactors Branch #3  
Division of Licensing

Enclosures:

1. Amendment No. 65 to NPF-6
2. Safety Evaluation

cc w/enclosures:

See next page

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ORB#3:DL  
PMKretuzer  
4/1/85

ORB#3:DL  
RSLee  
4/2/85

ORB#3:DL  
JRMiller  
4/2/85

OELD concurred on the notice of issuance  
and telephone concurrence from J. Ritzberg  
RSL obtained 4/29/85. K Lee  
OELD  
4/26/85  
AD:ORB:DL  
GCLinas  
4/1/85

Mr. John M. Griffin  
Arkansas Power & Light Company

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

ARKANSAS POWER & LIGHT COMPANY

DOCKET NO. 50-368

ARKANSAS NUCLEAR ONE, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No.65  
License No. NPF-6

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Arkansas Power & Light Company (the licensee) dated December 21, 1984, 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.

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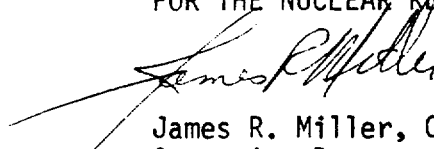
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-6 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 65 , 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 the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



James R. Miller, Chief  
Operating Reactors Branch #3  
Division of Licensing

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: April 30, 1985

ATTACHMENT TO LICENSE AMENDMENT NO. 65

FACILITY OPERATING LICENSE NO. NPF-6

DOCKET NO. 50-368

Replace the following pages of the Appendix "A" Technical Specifications with the enclosed pages. The revised pages are identified by amendment number and contain vertical lines indicating the areas of change. The corresponding overlead pages are also provided to maintain document completeness.

Remove Pages

2-5  
3/4 3-18

Insert Pages

2-5  
3/4 3-18

TABLE 2.2-1

REACTOR PROTECTIVE INSTRUMENTATION TRIP SETPOINT LIMITS

<u>FUNCTIONAL UNIT</u>	<u>TRIP SETPOINT</u>	<u>ALLOWABLE VALUES</u>
1. Manual Reactor Trip	Not Applicable	Not Applicable
2. Linear Power Level - High		
a. Four Reactor Coolant Pumps Operating	$\leq 110\%$ of RATED THERMAL POWER	$\leq 110.712\%$ of RATED THERMAL POWER
b. Three Reactor Coolant Pumps Operating	*	*
c. Two Reactor Coolant Pumps Operating - Same Loop	*	*
d. Two Reactor Coolant Pumps Operating - Opposite Loops	*	*
3. Logarithmic Power Level - High (1)	$\leq 0.75\%$ of RATED THERMAL POWER	$\leq 0.819\%$ of RATED THERMAL POWER
4. Pressurizer Pressure - High	$\leq 2362$ psia	$\leq 2370.887$ psia
5. Pressurizer Pressure - Low	$\geq 1766$ psia (2)	$\geq 1712.757$ psia (2)
6. Containment Pressure - High	$\leq 18.4$ psia	$\leq 19.024$ psia
7. Steam Generator Pressure - Low	$\geq 751$ psia (3)	$\geq 729.613$ psia (3)
8. Steam Generator Level - Low	$\geq 23\%$ (4)	$\geq 22.111$ (4)

\*These values left blank pending NRC approval of safety analyses for operation with less than four reactor coolant pumps operating.

TABLE 3.3-4 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION TRIP VALUES

<u>FUNCTIONAL UNIT</u>	<u>TRIP VALUE</u>	<u>ALLOWABLE VALUES</u>
4. MAIN STEAM AND FEEDWATER ISOLATION (MSIS)		
a. Manual (Trip Buttons)	Not Applicable	Not Applicable
b. Steam Generator Pressure - Low	$\geq 751$ psia (2)	$\geq 729.613$ psia (2)
5. CONTAINMENT COOLING (CCAS)		
a. Manual (Trip Buttons)	Not Applicable	Not Applicable
b. Containment Pressure - High	$\leq 18.4$ psia	$\leq 19.024$ psia
c. Pressurizer Pressure - Low	$\geq 1766$ psia (1)	$\geq 1712.757$ psia (1)
6. RECIRCULATION (RAS)		
a. Manual (Trip Buttons)	Not Applicable	Not Applicable
b. Refueling Water Tank - Low	54,400 $\pm$ 2,370 gallons (equivalent to 6.0 $\pm$ 0.5% indicated level)	between 51,050 and 58,600 gallons (equivalent to between 5.111% and 6.889% indicated level)
7. LOSS OF POWER		
a. 4.16 kv Emergency Bus Undervoltage (Loss of Voltage)	3120 volts (4)	3120 volts (4)
b. 460 volt Emergency Bus Undervoltage (Degraded Voltage)	423 $\pm$ 2.0 volts with an 8.0 $\pm$ 0.6 second time delay	423 $\pm$ 4.0 volts with an 8.0 $\pm$ 0.8 second time delay



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 65 TO FACILITY OPERATING LICENSE NO. NPF-6

ARKANSAS POWER & LIGHT COMPANY

ARKANSAS NUCLEAR ONE, UNIT 2

DOCKET NO. 50-368

Introduction

By letter dated December 21, 1984, Arkansas Power and Light Company (AP&L) proposed a revision to the Technical Specifications (TS) for steam generator low water level reactor trip setpoint.

The proposed amendment would revise the steam generator low water level trip setpoint specified in each of Table 2.2-1 and Table 3.3-4 of the TS. Specifically, the reactor protective instrument trip setpoint and the Engineered Safety Feature Actuation System (ESFAS) trip value for the steam generator low water level would be reduced from 46.7% to 23%. Similarly, the allowable values in these tables would be reduced by the same magnitude from 45.811% to 22.111%. Reducing these setpoints is expected to reduce the probability of unnecessary reactor trips during certain planned operating maneuvers, such as manual control of steam generator water level at low power.

Safety Evaluation

AP&L, the licensee, indicated in the December 21, 1984, letter that the original safety analysis setpoint for the steam generator low water level trip was  $\geq 23\%$  of steam generator water level. This analysis setpoint has been corrected for equipment errors and measurement uncertainties. The licensee also stated that during the initial licensing review, questions concerning asymmetric steam generator events were raised. In order to resolve this concern, it was necessary to modify the Core Protection Calculator (CPC) software or to establish a new steam generator low water level trip setpoint high enough so that the reactor would trip in the event of an asymmetric steam generator transient (ASGT). The licensee chose to raise the steam generator low water level trip analysis setpoint from 23% to 46.7% rather than modifying the CPC software because of the time constraints of obtaining an operating license. After obtaining the operating license, AP&L initiated a design change (CPC/LEC Software Modification 2B/3), and later incorporated it into the CPC software for Cycle 2 operation. The change included a CPC departure from nucleate boiling ratio (DNBR) penalty based on reactor coolant system cold leg temperature differences caused by an ASGT, and replaced the protection previously provided by the steam generator low level trip setpoint of 46.7%. This change has been reviewed and accepted by NRC in its Safety Evaluation dated June 19, 1981, and incorporated into Arkansas Nuclear One Unit 2 Technical Specifications by Amendment No. 24.

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Based on our review of the licensee's submittal, we conclude that the proposed Technical Specification change reducing the steam generator low level trip to the original safety analysis setpoint of 23% is consistent with the previous NRC approved design change, and is 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. 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 exposure. The Commission has previously published 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 §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

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

Date: April 30, 1985

Principal Contributor: V. Leung