JANUARY 1 2 1979

Docket No. 50-313

Mr. William Cavanaugh, III Executive Director, Generation and Construction Department Arkansas Power & Light Company P. O. Box 551 Little Rock, Arkansas 72203

Dear Mr. Cavanaugh:

The Commission has issued the enclosed Amendment No.39 to Facility Operating License No. DPR-51 for Arkansas Nuclear One, Unit No. 1 (ANO-1). The amendment consists of changes to the Technical Specifications in response to your license amendment requests dated July 5, 1977, and December 6, 1977, as supplemented December 13, 1978.

The amendment authorizes deletion of sodium thiosulfate from the Reactor Building Spray System, allows the installation of an orifice in the line between the Sodium Hydroxide Tank (SHT) and the Borated Water Storage Tank (BWST) and changes the Technical Specifications on the operating limits for the SHT and BWST water levels and chemical concentrations.

Copies of the Safety Evaluation and Notice of Issuance are also enclosed.

Sincerely,

### Original signed by

Robertt W. Reid, Chief Operating Reactors Branch #4 Division of Operating Reactors

### 7901290056

Enclosures:

Amendment No. 3 9 to DPR-51

Safety Evaluation

Notice 3.

See next page / 1/1/3 cc w/enclosures:

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

January 12, 1979

Docket No. 50-313

Mr. William Cavanaugh, III
Executive Director, Generation
and Construction Department
Arkansas Power & Light Company
P. O. Box 551
Little Rock, Arkansas 72203

Dear Mr. Cavanaugh:

The Commission has issued the enclosed Amendment No. <sup>39</sup> to Facility Operating License No. DPR-51 for Arkansas Nuclear One, Unit No. 1 (ANO-1). The amendment consists of changes to the Technical Specifications in response to your license amendment requests dated July 5, 1977, and December 6, 1977, as supplemented December 13, 1978.

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Copies of the Safety Evaluation and Notice of Issuance are also enclosed.

Sincerely,

Robert W. Reid, Chief

Operating Reactors Branch #4
Division of Operating Reactors

Enclosures:

1. Amendment No. 39 to DPR-51

2. Safety Evaluation

3. Notice

cc w/enclosures: See next page

### Arkansas Power & Light Company

cc w/enclosure(s):
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Mr. John W. Anderson, Jr. Plant Superintendent Arkansas Nuclear One Post Office Box 608 Russellville, Arkansas 72801

Arkansas Polytechnic College Russellville, Arkansas 72801

Honorable Ermil Grant Acting County Judge of Pope County Pope County Courthouse Russellville, Arkansas 72801

Chief, Energy Systems Analyses
Branch (AW-459)
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U. S. Environmental Protection Agency Region VI Office ATTN: EIS COORDINATOR 1201 Elm Street First International Building Dallas, Texas 75270

U. S. Nuclear Regulatory Commission ATTN: Mr. Tom Westerman P. O. Box 2090 Russelville, Arkansas 72801 Mr. Robert B. Borsum
Babcock & Wilcox
Nuclear Power Generation Division
Suite 420, 7735 Old Georgetown Road
Bethesda, Maryland 20014

cc w/enclosure(s) and incoming dtd.: 6/17, 7/5 & 12/6/77 and 12/13/78
Director, Bureau of Environmental Health Services
4815 West Markham Street
Little Rock, Arkansas 72201



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

### ARKANSAS POWER & LIGHT COMPANY

DOCKET NO. 50-313

ARKANSAS NUCLEAR ONE - UNIT NO. 1

### AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 39 License No. DPR-51

- 1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The applications for amendment by Arkansas Power & Light Company (the licensee) dated July 5, 1977 and December 6, 1977, as supplemented December 13, 1978, comply 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 applications, 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:

### (2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 39, 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

Robert W. Reid, Chief

Operating Reactors Branch #4
Division of Operating Reactors

Attachment: Changes to the Technical Specifications

Date of Issuance: January 12, 1979

# ATTACHMENT TO LICENSE AMENDMENT NO. 39 FACILITY OPERATING LICENSE NO. DPR-51 DOCKET NO. 50-313

Revise Appendix A Technical Specifications as follows:

Remove Pages	<u>Insert Pages</u>
36	. 36
37 -	. 37
	37 a
72 a	72 a
74	74

Changes on the revised pages are identified by marginal lines.

3.3 EMERGENCY CORE COOLING, REACTOR BUILDING COOLING AND REACTOR BUILDING SPRAY SYSTEMS

### Applicability

Applies to the emergency core cooling, reactor building cooling and reactor building spray systems.

### Objectivity

To define the conditions necessary to assure immediate availability of the emergency core cooling, reactor building cooling and reactor building spray systems.

### **Specification**

- 3.3.1 The following equipment shall be operable whenever containment integrity is established as required by Specification 3.6.1:
  - (A) One reactor building spray pump and its associated spray nozzle header.
  - (B) One reactor building cooling fan and its associated cooling unit.
  - (C) Two out of three service water pumps shall be operable, powered from independent essential buses, to provide redundant and independent flow paths.
  - (D) Two engineered safety feature actuated low pressure injection pumps shall be operable.
  - (E) Both low pressure injection coolers and their cooling water supplies shall be operable.
  - (F) Two BWST level instrument channels shall be operable.
  - \*(G) The borated water storage tank shall contain a minimum level of 35.9 feet (350,000 gallons) of water having a minimum concentration of 2270 ppm boron at a temperature not less than 40F. The manual valve on the discharge line from the borated water storage tank shall be locked open.
    - (H) The four reactor building emergency sump isolation valves to the LPI system shall be either manually or remote-manually operable.

 $\star$ On completion of the sodium thiosulfate system modification, which shall be completed no later than May 4, 1979, the following paragraph replaces paragraph 3.3.1(G) in its entirety:

(G) The borated water storage tank shall contain a level of  $37.5^{+1.5}_{-1.6}$ ft. (362,000 + 13,000 gallons) of water having a concentration of 2470 + 200 ppm boron at a temperature not less than 40F. The manual valve on the discharge line from the borated water storage tank shall be locked open.

- (I) The engineed safety features valves associated with each of the above systems shall be operable or locked in the ES position.
- 3.3.2 In addition to 3.3.1 above, the following ECCS equipment shall be operable when the reactor coolant system is above 350F and irradiated fuel is in the core:
  - (A) Two out of three high pressure injection (makeup) pumps shall be maintained operable, powered from independent essential busses, to provide redundant and independent flow paths.
  - (B) Engineered safety features valves associated with 3.3.2.a above shall be operable or locked in the ES position.
- 3.3.3 In addition to 3.3.1 and 3.3.2 above, the following ECCS equipment shall be operable when the reactor coolant system is above 800 psig:
  - (A) The two core flooding tanks shall each contain an indicated minimum of  $13 \pm 0.4$  feet  $(1040 \pm 30 \text{ ft}^3)$  of borated water at 600 + 25 psig.
  - (B) Core flooding tank boron concentration shall not be less than 2270 ppm boron.
  - (C) The electrically operated discharge valves from the core flood tanks shall be open and breakers locked open and tagged.
  - (D) One of the two pressure instrument channels and one of the two level instrument channels per core flood tank shall be operable.
- 3.3.4 The reactor shall not be made critical unless the following equipment in addition to 3.3.1, 3.3.2, and 3.3.3 above is operable.
  - (A) Two reactor building spray pumps and their associated spray nozzle headers and two reactor building emergency cooling fans and associated cooling units powered from operable independent emergency buses.
  - \*(B) The sodium thiosulfate tank shall contain an indicated 31 ft of 30 wt% solution sodium thiosulfate (37,500 lb). The sodium hydroxide tank shall contain an indicated 31 ft. of 20 wt% solution sodium hydroxide (20,500 lb.).

l

\*(C) All manual valves in the main discharge lines of the sodium thiosulfate and sodium hydroxide tanks shall be locked open.

\*On completion of the sodium thiosulfate system modification, which shall be completed no later than May 4, 1979, the following paragraphs replace paragraphs 3.3.4(B) and (C) in their entirety:

- (B) The sodium hydroxide tank shall contain an indicated  $34 \stackrel{+}{-}1.0 = 6$  ft. of  $18 \stackrel{+}{-}3.8 = 6$  wt. % solution sodium hydroxide (19,500 lb.  $\frac{+}{-}2500 = 16.$ ).
- (C) All manual valves in the main discharge lines of the sodium hydroxide tanks shall be locked open.

- (D) Engineered safety feature valves and interlocks associated with 3.3.1, 3.3.2, and 3.3.3 shall be operable or locked in the ES position.
- 3.3.5 Maintenance shall be allowed during power operation on any component(s) in the high pressure injection, low pressure injection, service water, reactor building spray and reactor building cooling

Table	4.1-1	(cont'd)

	Channel Description	Check	<u>Test</u>	Calibrate	Remarks
37.	Boric Acid Addition Tank				,
	a. Level Channel	NA	NA	R ·	,
•	b. Temperature Channel	М	АИ	R	
*38.	Sodium Thiosulfate Tank Level Indicator	NA	NA	R	
39.	Sodium Eydroxide Tank Level Indicator	HA	Alla	R	•
40.	Incore Neutron Detectors	M(1)	NA	:IA	(1) Check Functioning
41.	Emergency Plant Radiation Instruments	· M(1)	NA	R	(1) Battery Check
42.	Deleted			•	
43.	Strong Motion Acceleographs	Q(1)	liA.	ર	(1) Eattery Check
1,1,.	ESAS Manual Trip Functions				
	a. Switches & Logic	АИ	P	NA	
	b. Logic	AII	M	И	
45.	Reactor Manual Trip	NA	P	АИ	
46.	Reactor Building Sump Level	NA	NA	R	
Note	: S - Each Shift T/W - T	wice per	Week	. R	R - Once every 18 months
	D - Daily B/M - E	very 2 M	lonths	NA	- Not Applicable
	W - Weekly Q - Q	uarterly			

M - Monthly P - Prior to Each Startup if

<sup>\*</sup>Upon completion of the sodium thiosulfate system modification, which shall be completed no later than May 4, 1979, 1 delete Item 38.

### MINIMUM SAMPLING AND ANALYSIS FREQUENCY

	<u>Item</u>		Test		Frequency
	Reactor Coolant Samples	.a.	Gamma Isotopic Analysis	а.	Bi-weekly (7)
		ъ.	Gross Activity Determination	b.	<pre>3 times/week and at least every third day(1)(6)(7)</pre>
•		c.	Gross Radioiodine Determination	c.	
	,	ď.	Dissolved Gases	d.	(11) Weekly (7)
		e.	Chemistry (C1, F, and O2)	e.	3 times/week (3)
		f.	Boron Concentration	f.	3 times/week
		g.	Radiochemical Analysis for $\overline{E}$ Determination (2)(4)	8 :	Monthly (7)
2.	Borated Water Storage Tank Water Sample		Boron Concentration		Weekly and after each makeup
3.	Core Flooding Tank Sample		Boron Concentration		Monthly and after each makeup
4.	Spent Fuel Pool Water Sample		Boron Concentration		Monthly and after each makeup (9)
5.	Secondary Coolant Samples	а.	Gross Radioiodine Concentration	а.	Weekly (5)(7)(10)
		Ъ.	Isotopic Radioiodine Concentration (4)	ъ.	Monthly (7)(10)
6.	Sodium Hydroxide Tank Sample		Sodium Hydroxide Concentration		Quarterly and after each makeup
*7.	Sodium Thiosulfate Tank Sample		Sodium Thiosulfate Concentration		Quarterly and after each makeup

#### Notes:

(1) A gross radioactivity analysis shall consist of the quantitative measurement of the total radioactivity of the primary coolant in units of uCi/gm. The total primary coolant activity shall be the sum of the degassed beta-gamma activity and the total of all identified gaseous activities 15 minutes after the primary system is sampled. Whenever the gross radioactivity concentration exceeds 10% of the limit specified in the Specification 3.1.4.1 or increases by 10 µCi/gm from the previous measured level, the frequency of sampling and analyzing shall be increased to a minimum of once/day until a steady activity level is established.

Amendment No. 1/2, 39 - 74 -

<sup>\*</sup>On completion of the sodium thiosulfate system modification, which shall be completed no later than May 4, 1979, delete Item 7.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
SUPPORTING AMENDMENT NO.39 TO FACILITY OPERATING LICENSE NO. DPR-51

ARKANSAS POWER AND LIGHT COMPANY
ARKANSAS NUCLEAR ONE, UNIT NO. 1
DOCKET NO. 50-313

#### Introduction

By letters dated June 17, July 5, and December 6, 1977, Arkansas Power and Light Company (the licensee) proposed an amendment to Section 3.3 and Tables 4.1-1 and 4.1-3 of the Technical Specifications (TS) and changes to the Reactor Building Spray System (RBSS) for Arkansas Nuclear One, Unit 1 (ANO-1). These proposed changes would allow the deletion of the sodium thiosulfate from the RBSS, would allow the installation of an orifice in the line between the Sodium Hydroxide Tank (SHT) and the Borated Water Storage Tank (BWST), and would specify a band of operating limits for the SHT and BWST water levels and chemical concentrations. The licensee has provided the basis for and additional information on this proposed amendment in his letters of June 17, December 6, 1977, and December 13, 1978.

#### Discussion

By letter dated May 8, 1975, Babcock & Wilcox (B&W) identified a deficiency in the design performance of the RBSS of ANO-1. The letter stated that a computer analysis of the RBSS indicated that the SHT, sodium thiosulfate tank (STT), and BWST do not drawdown together under the calculated accident conditions. These tanks, which are a part of the RBSS, provide the boric acid and the chemical additives for the Emergency Core Cooling System (ECCS) and the RBSS during a Loss-of-Coolant Accident (LOCA). Subsequently, the licensee submitted Unusual Event Report (UER) 50-313/75-2, dated June 25, 1975, based on the above B&W letter. The licensee stated that a computer analysis would be performed based on the ANO-1 as-built piping configuration. By letter dated September 3, 1975, the licensee submitted the results of the reanalysis of the uneven drawdown of RBSS tanks. In a letter dated February 12, 1976, the licensee submitted a nonproprietary report, in support of a TS change, which contained data on a computer simulated drawdown test of the tanks in the ANO-1 RBSS. The licensee concluded in their September 3, 1975 letter, that the performance of the as-built ANO-1 RBSS was adequate.

In addition, by letter dated October 7, 1975, the licensee requested changes to Specifications 3.3.1(H) and 3.8.4(B) for ANO-1. These specifications specify the liquid level and chemical composition for the BWST, SHT and STT. The proposed specifications were to correct the present specifications which refer only to minimum or specific values and to lower the concentrations in the SHT and STT. A proprietary technical report, supporting these changes, was submitted in a letter dated December 22, 1975; a nonproprietary version of this report was submitted February 12, 1976.

We reviewed and evaluated the above data provided by the licensee in his letters of September 3, October 7 and December 22, 1975, and February 12, 1976. We concluded that (1) additional information was needed from the licensee to complete our evaluation and (2) our initial analysis indicated that two problems could result from the uneven drawdown of and the proposed chemical composition specifications on the BWST, SHT, and STT. The two problems were that the potential consequences of the LOCA may exceed the guidelines of 10 CFR Part 100, and the chemistry of the spray water during the LOCA may be outside acceptable limits. The licensee was requested, in letters dated October 18 and November 19, 1976, to submit additional information to allow us to complete our review and evaluation of the RBSS.

The data and proposed specifications provided by the licensee in his letters dated June 27, July 5, and December 6, 1977, were in response to our request for additional information to continue our review and evaluation of the RBSS. The proposed technical specifications, the proposed installation of an orifice in the line between the SHT and BWST and the proposed deletion of the STT are to correct deficiencies in the RBSS that might result in uneven drawdown of the tanks and unacceptable spray water chemistry during a LOCA.

### **E**<u>valuation</u>

We have reviewed and evaluated the data provided by the licensee on the ANO-1 RBSS in his letters dated June 17, July 5, December 6, 1977 and December 13, 1978.

By letter dated July 5, 1977, the licensee requested deletion of the STT from the ANO-1 RBSS because he has experienced difficulties operating ANO-1 with sodium thiosulfate in the STT. There has been chloride stress corrosion cracking in engineered safety feature RBSS piping from chloride impurities in the sodium thiosulfate in the STT. There has also been an overflow of the STT.

The RBSS pipes which had corrosion cracking provide water for containment spray during a LOCA. Serious cracking of the pipes could impair the ability of the RBSS to provide sufficient water spray to the containment to remove radioiodine and heat from the atmosphere. Removing the sodium thiosulfate would significantly reduce the chances of corrosion cracking in this piping.

The STT provides sodium thiosulfate to the RBSS to maximize the removal of organic iodine from the containment atmosphere during the LOCA. This will reduce the radiological consequences of a LOCA; however, because only 4% of the radioiodine is assumed to be organic iodine (Regulatory Guide 1.4, Revision 2), the spray additive has only a small effect on the calculated radiological consequences of a LOCA.

To provide additional assurance that the ANO-1 RBSS will operate with acceptable spray water chemistry, the licensee has proposed installing an orifice between the SHT and BWST and changing the specified water levels and chemical composition of the SHT and BWST in the ANO-1 Technical Specifications. To show that there was adequate assurance that sufficient sodium hydroxide is added to the RBSS from the SHT, the licensee provided data from computer simulated tests of the modified RBSS.

By letter dated June 17, 1977, the licensee provided data to show that the operation of the ANO-1 RBSS with an orifice in the line between the SHT and the BWST does not result in significant uneven drawdown between the SHT and BWST. The data did not include the STT because the licensee is requesting the deletion of this tank from the ANO-1 RBSS. The orifice would be installed in the line to correct the uneven drawdown between the SHT and BWST which had been calculated previously by the licensee in an earlier computer simulated drawdown test of the tanks in the ANO-1 RBSS. (Licensee letter dated February 12, 1976.)

By letters dated July 15 and December 6, 1977, the licensee showed the pH of the ANO-1 RBSS injection spray and recirculation (sump) spray water would be between 8.5 and 11, and the potential consequences of the postulated LOCA were calculated to be less than the guidelines of 10 CFR Part 100. The water levels and chemical compositions of the SHT and BWST used in the licensee's calculations are the values proposed in the licensee's letter dated December 6, 1977.

On the basis of the data he has provided in his letters dated June 17, July 5 and December 6, 1977, the licensee states that the ANO-1 RBSS is adequate to assure acceptable spray water chemistry and potential consequences less than the guidelines of 10 CFR Part 100 during the postulated LOCA.

The data provided by the licensee on the ANO-1 RBSS were based on computer simulated drawdown tests of the BWST and SHT. By letter dated December 13, 1978, the licensee provided data on a comparison of the computer simulation of the drawdown of a similar RBSS in another nuclear plant with the measured drawdown test. The computer program used to simulate the drawdown test at the other nuclear plant was the same computer program used to simulate the tests at ANO-1. This comparison was made to verify that the computer program adequately predicts the performance of the RBSS at ANO-1. We conclude that this is a valid means to verify that the computer program adequately predicts the performance of ANO-1 RBSS. Based on our review of the data in the licensee's letter dated December 13, 1978, we conclude that there is adequate assurance that the results of the computer program predict the performance of the ANO-1 RBSS.

We have independently reviewed and evaluated the proposed changes to the ANO-1 RBSS. The proposed volumes and concentrations for the SHT and BWST should result in ranges of pH values in possible solutions that could result during a LOCA which meet the guidelines on post-accident spray water chemistry as discussed in Standard Review Plan (SRP) 6.5.2.

We have calculated the potential consequences of the postulated LOCA at ANO-1 with the proposed changes to the RBSS. The potential consequences and the assumptions made to calculate them are given in Table 1. The potential consequences are less than the guidelines of 10 CFR Part 100.

The potential consequences in Table 1 do not include a contribution from leakage from safeguard equipment located outside containment. The RBSS pumps and low pressure injection pumps are located in sealed rooms of the auxiliary building through which air does not circulate. Cooling of these pumps is accomplished by a closed cycle ventilation system which blows room air over chilled water coils. Therefore, iodine leaking from these pumps is not exhausted through the plant vent and no off-site doses result from this source.

We conclude that it is acceptable to delete the sodium thiosulfate and the STT from the ANO-1 RBSS because the potential consequences of the postulated LOCA are less than the guidelines of 10 CFR Part 100 without spraying sodium thiosulfate and because the licensee has experienced operational difficulties with this chemical. We also conclude that installing the orifice between the SHT and BWST and changing the specified water levels and chemical compositions of the SHT and BWST in the ANO-1 Technical Specifications is acceptable. The possible RBSS spray water chemistry during a LOCA is within acceptable limits and the potential consequences of the postulated LOCA are less than the guidelines of 10 CFR Part 100.

### Environmental Considerations

We have determined that the amendment does not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have concluded, that the amendment involves an action which is insignificant from the standpoint of environmental impact and, pursuant to  $10 \ \text{CFR} \ 51.5(d)(4)$ , that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

### Conclusion

On the basis of the above considerations, we conclude that the proposed changes to the ANO-1 TS, the proposed orifice between the SHT and BWST, and the deletion of the sodium thiosulfate and the STT from ANO-1 are acceptable and do not decrease the margin of safety.

We also have concluded, based on the considerations above, that:
(1) because the amendment does not involve a significant increase in the probability or consequences of accidents previously considered, does not involve a significant decrease in a safety margin, the amendment does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) 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.

Date: January 12, 1979

<u>Table 1</u>

# POTENTIAL CONSEQUENCES OF THE POSTULATED LOCA FOR ARKANSAS NUCLEAR ONE - UNIT ONE

	Doses	(Rem)	
Exclusion	n		
Bou	ndary	LPZ	
	whole		whole
thyroid	<u>body</u>	<u>thyroid</u>	body
154.	7.0	77.	2.5

### LOSS-OF-COOLANT ACCIDENT ASSUMPTIONS

### Regulatory Guide 1.4

Volume of the Reactor Building	1.865 x 10 <sup>6</sup> cubic feet		
Core Power Level	2568 MWt		
Operating Time	3 years		
Fraction of Noble Gases Released	100%		
Fraction of Halogens Airborne	25%		
Spray Water Chemistry .	NaOH and boric acid		
Halogen Composition	91% elemental 4% organic 5% particulate		
Reactor Building Leak Rate	0.2%/day 0-24 hours 0.1%/day after 24 hours		
Exclusion Radius	1046 meters		
Low Population Zone	6440 meters		
Atmospheric Dilution Factors	(sec/m <sup>3</sup> )		
. 0-2 hours at 1046 meters	$6.8 \times 10^{-4}$		
0-8 hours at 6440 meters	$1.1 \times 10^{-4}$		
8-24 hours at 6440 meters	$1.1 \times 10^{-5}$		
24-96 hours at 6440 meters	$4.0 \times 10^{-6}$		
96-720 hours at 6440 meters	$1.3 \times 10^{-6}$		
Leakage from equipment outside containment	0 lb/Hr.*		
Regions within the containment	sprayed 88.9% unsprayed 11.1%		
Flow between regions within containment	2/hr x unsprayed volume		
Purging Containment	100 CFM 11.5 days after LOCA		

<sup>\*</sup> Sealed cubicle with no air released from the cubicle.

### UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NO. 50-313

### ARKANSAS POMER & LIGHT COMPANY

### NOTICE OF ISSUANCE OF AMENDMENT TO FACILITY OPERATING LICENSE

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 39 to Facility Operating License No. DPR-51, issued to Arkansas Power & Light Company (AP&L or the licensee), which revised the Technical Specifications for operation of Arkansas Nuclear One, Unit No. 1 (ANO-1 or the facility) located in Pope County, Arkansas. The amendment is effective as of the date of issuance.

This amendment authorizes deletion of sodium thiosulfate from the Reactor Building Spray System, allows the installation of an orifice in the line between the Sodium Hydroxide Tank (SHT) and the Borated Water Storage Tank (BWST) and changes to the Technical Specifications on the operating limits for the SHT and BWST water levels and chemical concentrations.

The applications for the amendment comply with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendment. Prior public notice of this amendment was not required since the amendment does not involve a significant hazards consideration.



The Commission has determined that the issuance of this amendment will not result in any significant environmental impact and that pursuant to 10 CFR \$51.5(d)(A) an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with issuance of this amendment.

For further details with respect to this action, see (1) the licensee's applications for amendment dated July 5, 1977, and December 6, 1977, as supplemented December 13, 1978, (2) Amendment No. 39 to License No. DPR-51, and (3) the Commission's related Safety Evaluation. All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N.W., Washington, D.C. and at the Arkansas Polytechnic College, Russellville, Arkansas. A copy of items (2) and (3) may be obtained upon request addressed to the U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Director, Division of Operating Reactors.

Dated at Bethesda, Maryland, this 12th day of January 1979.

FOR THE NUCLEAR REGULATORY COMMISSION

Robert W. Reid, Chief

Operating Reactors Branch #4

Division of Operating Reactors