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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. 38 to Facility Operating License No. DPR-51 for the Arkansas Nuclear One, Unit No. 1. The amendment revises the license and its appended Technical Specifications in response to your application dated August 16, 1978, as supplemented December 6, 1978.

This amendment changes the license and Technical Specifications relating to the receipt, possession, and use of byproduct, source and special nuclear material. As discussed with your staff, changes have been made to your proposal to meet regulatory requirements.

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

Sincerely,

Original signed by

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

Enclosures:

- 1. Amendment No. 38
- 2. Safety Evaluation
- 3. Notice of Issuance

cc w/enclosures: See next page

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Arkansas Power & Light Company

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Plant Superintendent  
Arkansas Nuclear One  
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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 (AI-459)  
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U. S. Environmental Protection Agency  
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U. S. Environmental Protection Agency  
Region VI Office  
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Dallas, Texas 75270

U. S. Nuclear Regulatory Commission  
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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.: 8/16/78 & 12/6/78

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. 38  
License No. DPR-51

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Arkansas Power & Light Company (the licensee) dated August 16, 1978, as supplemented December 6, 1978, 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 paragraphs 2.b.(2) through 2.b.(4) and 2.c.(2) of Facility Operating License No. DPR-51 are hereby amended to read as follows:

2.b.(2) Pursuant to the Act and 10 CFR Part 70, to receive, possess and use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report, as supplemented and amended;

2.b.(3) Pursuant to the Act and 10 CFR Parts 30, 40 and 70 to receive, possess and use at any time any byproduct, source and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;

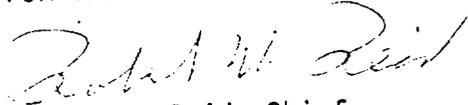
2.b.(4) Pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess and use in amounts as required any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components;

2.c.(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 38, 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 11, 1979

ATTACHMENT TO LICENSE AMENDMENT NO. 38

FACILITY OPERATING LICENSE NO. DPR-51

DOCKET NO. 50-313

Revise the Appendix A Technical Specifications as follows:

<u>Remove Pages</u>	<u>Insert Pages</u>
66b	66b
110b	110b
128	128

Changes on the revised pages are identified by marginal lines.

### 3.12 MISCELLANEOUS RADIOACTIVE MATERIALS SOURCES

#### Applicability

Applies to byproduct, source, and special nuclear radioactive material sources.

#### Objective

To assure that leakage from byproduct, source, and special nuclear radioactive material sources does not exceed allowable limits.

#### Specification

- 3.12.1 The source leakage test performed pursuant to Specification 4.14 shall be capable of detecting the presence of 0.005 uCi of radioactive material on the test sample. If the test reveals the presence of 0.005 uCi or more of removable contamination, it shall immediately be withdrawn from use, decontaminated, and repaired, or be disposed of in accordance with Commission regulations. Sealed sources are exempt from such leak tests when the source contains 100 uCi or less of beta and/or gamma emitting material or 5 uCi or less of alpha emitting material.
- 3.12.2 A Special Report shall be prepared and submitted to the Commission within 90 days if source leakage tests reveal the presence of  $\geq$  0.005 microcuries of removable contamination.
- 3.12.3 A complete inventory of licensed radioactive materials in possession shall be maintained current at all times.

#### 4.14 RADIOACTIVE MATERIALS SOURCES SURVEILLANCE

##### Applicability

Applies to leakage testing of byproduct, source, and special nuclear radioactive material sources.

##### Objective

To assure that leakage from byproduct, source, and special nuclear radioactive material sources does not exceed allowable limits.

##### Specification

Test for leakage and/or contamination shall be performed by the licensee or by other persons specifically authorized by the Commission or an agreement State, as follows:

1. Each sealed source, except startup sources subject to core flux, containing radioactive material, other than Hydrogen 3, with a half-life greater than 30 days and in any form other than gas shall be tested for leakage and/or contamination at intervals not to exceed six months.
2. The periodic leak test required does not apply to sealed sources that are stored and not being used. The sources excepted from this test shall be tested for leakage prior to any use or transfer to another user unless they have been leak tested within six months prior to the date of use or transfer. In the absence of a certificate from a transferrer indicating that a test has been made within six months prior to the transfer, sealed sources shall not be put into use until tested.
3. Each sealed startup source shall be leak tested within 31 days prior to being subjected to core flux and following repair or maintenance to the source.

## 6.9 RECORD RETENTION

6.9.1 The following records shall be retained for at least five years:

- a. Records and logs of facility operation covering time interval at each power level.
- b. Records and logs of principal maintenance activities, inspections, repair and replacement of principal items of equipment related to nuclear safety.
- c. All Reportable Occurrences submitted to the Commission pursuant to Specification 6.12.3.
- d. Records of surveillance activities, inspections and calibrations required by the Appendix A Technical Specifications.
- e. Records of reactor tests and experiments.
- f. Records of changes made to procedures required by Specification 6.8.1.
- g. Records of radioactive shipments.
- h. Test results, in units of microcuries, for leak tests performed on licensed sealed sources.
- i. Results of annual physical inventory verifying accountability of licensed sources on record.

6.9.2 The following records shall be retained for the duration of the Facility Operating License:

- a. Records and drawing changes reflecting facility design modifications made to systems and equipment described in the Final Safety Analysis Report.
- b. Records of new and irradiated fuel inventory, fuel transfers and assembly burnup histories.
- c. Records of facility radiation and contamination surveys.
- d. Records of radiation exposure for all individuals entering radiation control areas.
- e. Records of gaseous and liquid radioactive material released to the environs.
- f. Records of transient or operational cycles for those facility components designed for a limited number of transients or cycles.
- g. Records of training and qualification for current members of the plant staff.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
SUPPORTING AMENDMENT NO. 38 TO FACILITY  
OPERATING LICENSE NO. DPR-51  
ARKANSAS NUCLEAR ONE, UNIT NO. 1  
DOCKET NO. 50-313

Introduction

By letter dated August 16, 1978, supplemented by letter dated December 6, 1978, Arkansas Power and Light Company (the licensee or AP&L) proposed a license amendment to Facility Operating License No. DPR-51 which included proposed changes to the Technical Specifications for Arkansas Nuclear One, Unit No. 1 (ANO-1). The proposed changes provide in a generalized manner for special nuclear, source and byproduct material. AP&L also included with their letter a description of the proposed Special Nuclear Material Program. This proposed program was modified by letter dated December 6, 1978.

Evaluation

The licensee has proposed to replace specified descriptions of special nuclear, source, and byproduct material which appear in the license with a generalized description according to a format acceptable to us. We have reviewed the license language generically and found that it provides the degree of specificity necessary to assure that plant activities can be conducted without endangering the health and safety of the public. The changes simplify the language and therefore may avoid unnecessary license amendments in the future. The licensee has proposed Technical Specifications for leak testing and surveillance of sources, and has committed to a Final Safety Analysis Report change containing information described in Regulatory Guide 1.70.3.

We have reviewed the material submitted by the licensee in support of the proposed license amendment and Technical Specification change.

We conclude that this material satisfies Regulatory Guide 1.70.3 and provides reasonable assurance that the radioactive material will be stored and used in a manner to meet the applicable radiation protection provisions of 10 CFR Parts 20, 30 and 70.

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Environmental Consideration

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 further concluded that the amendment involves an action which is insignificant from the standpoint of environmental impact and, pursuant to 10 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

We have concluded, based on the considerations discussed above, that: (1) because the amendment does not involve a significant increase in the probability or consequences of accidents previously considered and 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.

Dated: January 11, 1979

UNITED STATES NUCLEAR REGULATORY COMMISSIONDOCKET NO. 50-313ARKANSAS POWER & LIGHT COMPANYNOTICE OF ISSUANCE OF AMENDMENT TO FACILITY  
OPERATING LICENSE

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 38 to Facility Operating License No. DPR-51, issued to Arkansas Power and Light Company (the licensee), which revised the license and its appended Technical Specifications for operation of the Arkansas Nuclear One, Unit No. 1 (the facility) located in Pope County, Arkansas. The amendment is effective as of its date of issuance.

The amendment changes the license and Technical Specifications relating to the receipt, possession, and use of byproduct, source and special nuclear material.

The application for the amendment complies 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.

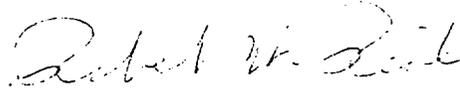
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The Commission has determined that the issuance of this amendment will not result in any significant environmental impact and that pursuant to 10 CFR § 51.5(d)(4) an environmental impact statement, or negative declaration and environmental impact appraisal need not be prepared in connection with issuance of this amendment.

For further details with respect to this action, see (1) the application for amendment dated August 16, 1978, as supplemented December 6, 1978, (2) Amendment No. 38 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 11th day of January 1979.

FOR THE NUCLEAR REGULATORY COMMISSION



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