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Docket No. 50-313

DEC 7 1976

Arkansas Power & Light Company  
ATTN: Mr. J. D. Phillips  
Senior Vice President  
Production, Transmission and  
Engineering  
Sixth and Pine Streets  
Pine Bluff, Arkansas 71601

Gentlemen:

In response to your request dated September 30, 1976 (which superseded the unreviewed portion of your previous application dated December 10, 1975), the Commission has issued the enclosed Amendment No. 16 to Facility Operating License No. DPR-51 for the Arkansas Nuclear One - Unit No. 1 (ANO-1) facility.

The amendment revises the provisions in the Technical Specifications relating to Administrative Controls, Sections 6.1 to 6.11. Changes to your proposal were necessary to meet our requirements. These changes have been discussed with and accepted by your staff.

This amendment will be effective ninety (90) days after the date of issuance to allow sufficient time to update your procedures and train your staff concerning the revised Administrative Controls.

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

Sincerely,

Original signed by

Dennis L. Ziemann

Dennis L. Ziemann, Chief  
Operating Reactors Branch #2  
Division of Operating Reactors

Enclosures:

1. Amendment No. 16 to License No. DPR-51
2. Safety Evaluation
3. Notice

OFFICE >	DOR:ORB-2	DOR:ORB-2	OELD	DOR:ORB-2
SURNAME >	RMDiggs	RPSnaider	Kiefer	DLZiemann
DATE >	11/23/76	11/23/76	12/3/76	12/07/76

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4815 West Markham Street  
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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. 16  
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 September 30, 1976, 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.
3. This license amendment is effective ninety (90) days following the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Dennis L. Ziemann, Chief  
Operating Reactors Branch #2  
Division of Operating Reactors

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: December 7, 1976

ATTACHMENT TO LICENSE AMENDMENT NO. 16

FACILITY OPERATING LICENSE NO. DPR-51

DOCKET NO. 50-313

Replace existing pages 117 through 139 of the Technical Specifications contained in Appendix A to the license with the attached revised pages 117 through 134. The changed areas on the revised pages are identified by marginal lines.

## 6.0 ADMINISTRATIVE CONTROLS

### 6.1 RESPONSIBILITY

6.1.1 The Superintendent of Power Plant shall be responsible for overall facility operation. In his absence, the Assistant Superintendent of Power Plant shall assume all responsibility and perform all duties of the Superintendent of Power Plant. If both the Superintendent of Power Plant and his assistant are absent, these responsibilities and duties are assumed by the Supervisor of Plant Operations followed by the Technical Support Engineer.

### 6.2 ORGANIZATION

#### OFFSITE

6.2.1 The offsite organization for facility management and technical support shall be as shown on Figure 6.2-1.

#### FACILITY STAFF

6.2.2 The Facility organization shall be as shown on Figure 6.2-2A and 6.2-2B and each on duty shift shall be composed of at least the minimum shift crew composition shown in Table 6.2-1.

### 6.3 FACILITY STAFF QUALIFICATIONS

6.3.1 Each member of the facility staff shall meet or exceed the minimum qualifications of ANSI N18.1-1971 for comparable position, except for the Health Physics Supervisor who shall meet or exceed the qualifications of Regulatory Guide 1.8, September 1975.

### 6.4 TRAINING

6.4.1 A retraining and replacement training program for the facility staff shall be maintained under the direction of the Supervisor of Plant Operations and shall meet or exceed the requirements and recommendations of Section 5.5 of ANSI N18.1-1971 and Appendix "A" of 10 CFR Part 55.

### 6.5 REVIEW AND AUDIT

#### 6.5.1 Plant Safety Committee (PSC) Function

6.5.1.1 The Plant Safety Committee shall function to advise the Superintendent of Power Plant on all matters related to nuclear safety.

#### COMPOSITION

6.5.1.2 The Plant Safety Committee shall be composed of the:

TABLE 6.2-1

ARKANSAS NUCLEAR ONE

MINIMUM SHIFT CREW COMPOSITION#

UNIT 1

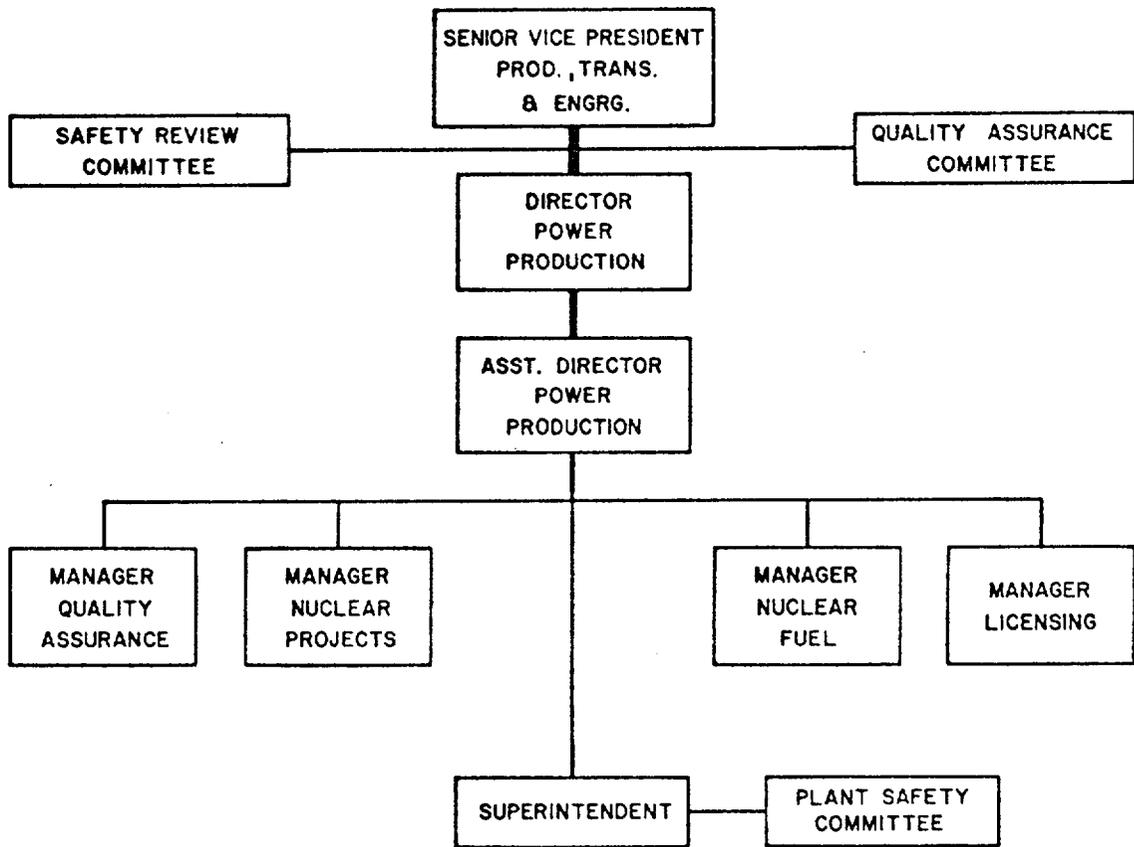
LICENSE CATEGORY	ABOVE COLD SHUTDOWN	COLD AND REFUELING SHUTDOWNS
SOL	1	1*
OL	2	1
NON-LICENSED	2	1

\*Does not include the licensed Senior Reactor Operator or Senior Reactor Operator Limited to Fuel Handling, supervising refueling operations after the initial fuel loading.

#Shift crew composition may be less than the minimum requirements for a period of time not to exceed 2 hours in order to accommodate unexpected absence of on duty shift crew members provided immediate action is taken to restore the shift crew composition to within the minimum requirements of Table 6.2-1.

Additional Requirements:

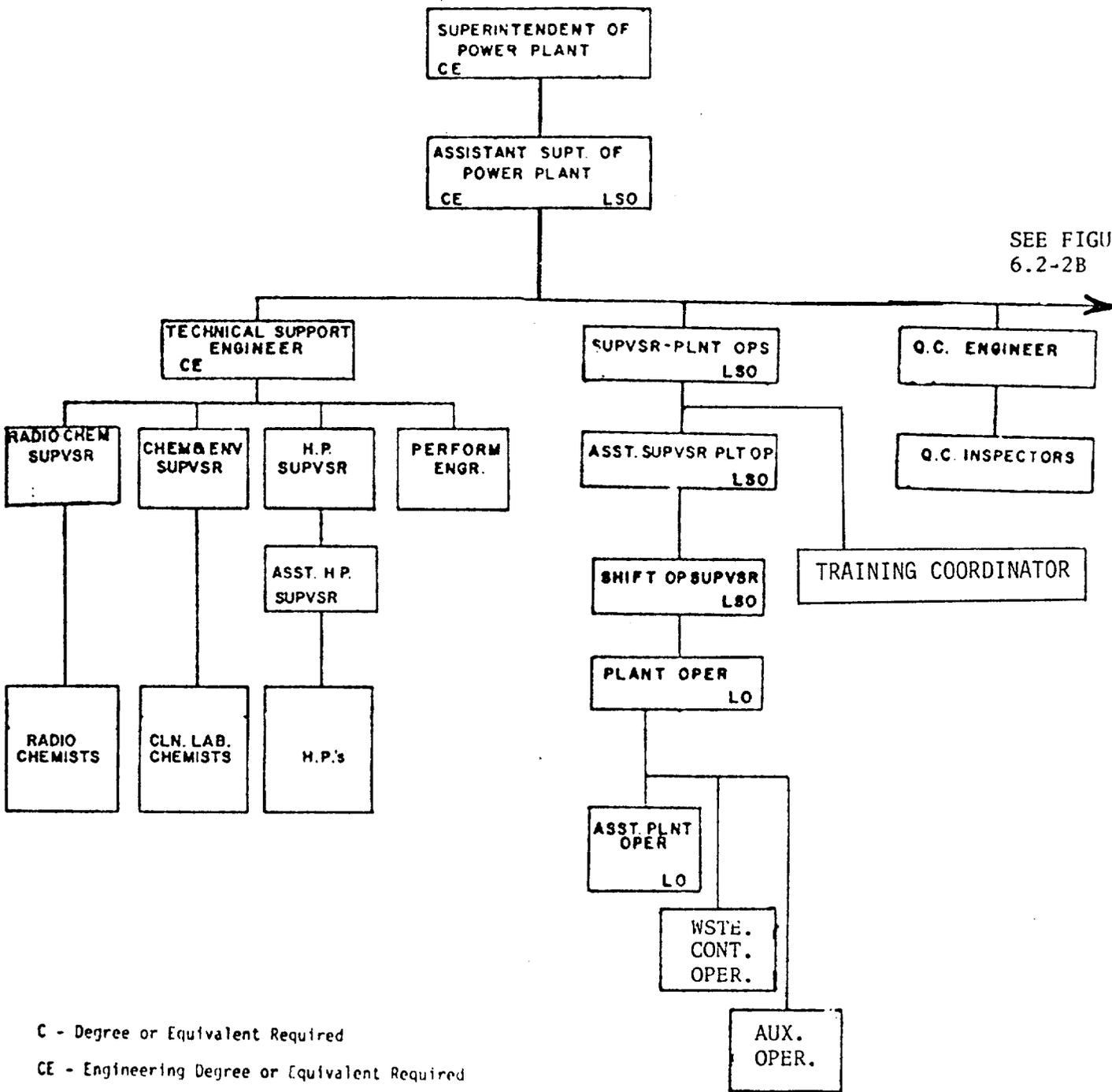
1. At least one licensed Operator shall be in the control room when fuel is in the reactor.
2. At least two licensed Operators shall be present in the control room during reactor start-up, scheduled reactor shutdown and during recovery from reactor trips.
3. An individual qualified in radiation protection procedures shall be on site when fuel is in the reactor.
4. All refueling operations after the initial fuel loading shall be directly supervised by either a licensed Senior Reactor Operator or Senior Reactor Operator Limited to Fuel Handling who has no other concurrent responsibilities during this operation.



ARKANSAS POWER & LIGHT COMPANY  
ARKANSAS NUCLEAR ONE - UNIT 1

MANAGEMENT ORGANIZATION CHART

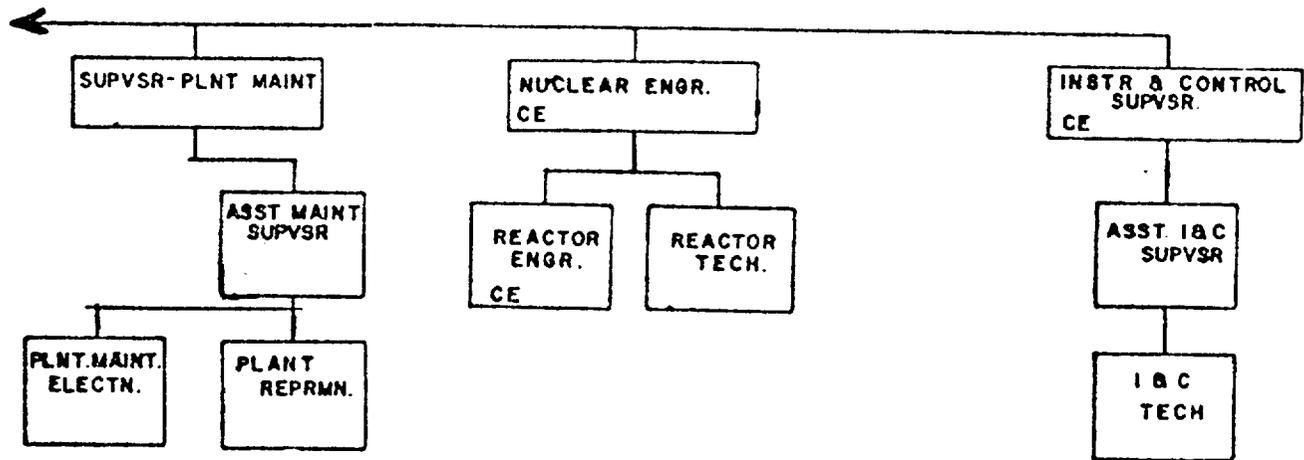
FIGURE  
6.2-1



C - Degree or Equivalent Required  
 CE - Engineering Degree or Equivalent Required  
 LSO - Senior Operator License Required  
 LO - Operator License Required

ARKANSAS POWER & LIGHT CO. ARKANSAS NUCLEAR ONE-UNIT 1	FUNCTIONAL ORGANIZATION FOR PLANT OPERATION	FIGURE 6.2-2A
---	---	---------------

SEE FIGURE  
6.2-2A



- C - Degree or Equivalent Required
- CE - Engineering Degree or Equivalent Required
- LSO - Senior Operator License Required
- LO - Operator License Required

ARKANSAS POWER & LIGHT CO. ARKANSAS NUCLEAR ONE-UNIT 1	FUNCTIONAL ORGANIZATION FOR PLANT OPERATION	FIGURE 6.2- 2B
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Chairman: Assistant Superintendent of Power Plant  
Member: Technical Support Engineer  
Member: Instrumentation & Controls Supervisor  
Member: Supervisor of Plant Operations  
Member: Supervisor of Plant Maintenance  
Member: Nuclear Engineer  
Member: Health Physics Supervisor

The Superintendent of Power Plant shall appoint an acting chairman in the absence of the Assistant Superintendent of Power Plant.

#### ALTERNATES

6.5.1.3 All alternate members shall be appointed in writing by the PSC Chairman to serve on a temporary basis; however, no more than two alternates shall participate as voting members in PSC activities at any one time.

#### MEETING FREQUENCY

6.5.1.4 The PSC shall meet at least once per calendar month and as convened by the PSC Chairman or his designated alternate.

#### QUORUM

6.5.1.5 A quorum of the PSC shall consist of the chairman and three members including alternates.

#### RESPONSIBILITIES

6.5.1.6 The Plant Safety Committee shall be responsible for:

- a. Review of 1) all procedures required by Specification 6.8 and revisions thereto, 2) any other proposed procedures or revisions thereto as determined by the Superintendent of Power Plant to affect nuclear safety.
- b. Review of all proposed tests and experiments that affect nuclear safety.
- c. Review of all proposed changes to the Appendix "A" Technical Specifications.
- d. Review of all proposed changes or modifications to plant systems or equipment that affect nuclear safety.
- e. Investigation of all violations of the Technical Specifications including the preparation and forwarding of reports covering evaluation and recommendations to prevent recurrence to the Superintendent of Power Plant.
- f. Review of those Reportable Occurrences requiring 24 hour notification of the Commission.

- g. Review of facility operations to detect potential nuclear safety hazards.
- h. Performance of special reviews and investigations and reports thereon as requested by the Superintendent of Power Plant.
- i. Review of the Plant Security Plan and implementing procedures and shall submit recommended changes to the Superintendent of Power Plant.
- j. Review of the Emergency Plan and implementing procedures and shall submit recommended changes to the Superintendent of Power Plant.

#### AUTHORITY

6.5.1.7.1 The Plant Safety Committee shall:

- a. Recommend to the Superintendent of Power Plant written approval or disapproval of items considered under 6.5.1.6(a) through (d) above.
- b. Render determinations in writing with regard to whether or not each item considered under 6.5.1.6(a) through (e) above constitutes an unreviewed safety question.

6.5.1.7.2 In the event of a disagreement between the recommendations of the Plant Safety Committee and the actions contemplated by the Superintendent, the course determined by the Superintendent to be more conservative will be followed. Records of the disagreement will be sent for review to the Assistant Director, Power Production and the Chairman of the Safety Review Committee by the Superintendent on the next working day.

#### RECORDS

6.5.1.8 The Plant Safety Committee shall maintain written minutes of each meeting and copies shall be provided to the Chairman of the Safety Review Committee by the Superintendent of Power Plant.

6.5.2 Safety Review Committee (SRC)

#### FUNCTION

- 6.5.2.1 The Safety Review Committee shall function to provide independent review and audit of designated activities in the areas of:
- a. nuclear power plant operations
  - b. nuclear engineering
  - c. chemistry and radiochemistry

- d. metallurgy
- e. instrumentation and control
- f. radiological safety
- g. mechanical and electrical engineering
- h. environmental considerations
- i. other appropriate fields required by the unique characteristics of the nuclear power plant

#### COMPOSITION

6.5.2.2 The SRC shall be composed of the:

Chairman: Director Power Production  
Member: Asst. Director, Power Production  
Member: Maintenance and Operations Coordinator  
Member: Manager of Safety  
Member: Arkansas Nuclear One Superintendent of Power Plant  
Member: Representative from G.O. Chemistry Section  
Member: Arkansas Nuclear One Nuclear Engineer  
Member: Manager, Nuclear Fuel  
Member: Radiation and Health Physics Consultant  
Member: Nuclear Safety Consultant  
Member: Manager, Licensing

In his absence, the Chairman shall appoint an Acting Chairman.

#### ALTERNATES

6.5.2.3 All alternate members shall be appointed in writing by the SRC Chairman to serve on a temporary basis; however, no more than two alternates shall participate as voting members in SRC activities at any one time.

#### CONSULTANTS

6.5.2.4 Consultants shall be utilized as determined by the SRC Chairman to provide expert advice to the SRC.

#### MEETING FREQUENCY

6.5.2.5 The SRC shall meet at least once per calendar quarter during the initial year of facility operation following fuel loading and at least once per six months thereafter.

#### QUORUM

6.5.2.6 A quorum of SRC shall consist of the Chairman or his designated alternate and five members including alternates. No more than a minority of the quorum shall have line responsibility for operation of the facility.

## REVIEW

### 6.5.2.7 The SRC shall review:

- a. The safety evaluations for 1) changes to procedures, equipment or systems and 2) tests or experiments completed under the provision of Section 50.59, 10 CFR, to verify that such actions did not constitute an unreviewed safety question.
- b. Proposed changes to procedures, equipment or systems which involve an unreviewed safety question as defined in Section 50.59, 10 CFR.
- c. Proposed tests or experiments which involve an unreviewed safety question as defined in Section 50.59, 10 CFR.
- d. Proposed changes in Technical Specifications or licenses.
- e. Violations of applicable statutes, codes, regulations, orders, Technical Specifications, license requirements, or of internal procedures or instructions having nuclear safety significance.
- f. Significant operating abnormalities or deviations from normal and expected performance of plant equipment that affect nuclear safety.
- g. Reportable occurrences requiring 24 hour notification to the Commission.
- h. Reports and meeting minutes of the PSC.

## AUDITS

### 6.5.2.8 Audits of facility activities shall be performed under the cognizance of the SRC. These audits shall encompass:

- a. The conformance of facility operation to all provisions contained within the Technical Specifications and applicable license conditions at least once per year.
- b. The performance and retraining of all members of the plant management and operations staff, and the performance, training, and qualifications of new members of the entire plant staff at least once per year.
- c. The results of all actions taken to correct deficiencies occurring in facility equipment, structures, systems or method of operation that affect nuclear safety at least once per six months.
- d. The Facility Emergency Plan and implementing procedures at least once per two years.

- e. The Facility Security Plan and implementing procedures at least once per two years.
- f. Any other area of facility operation considered appropriate by the SRC or the Senior Vice President (PT&E)

#### AUTHORITY

- 6.5.2.9 The SRC shall report to and advise the Senior Vice President (PT&E) on those areas of responsibility specified in Section 6.5.2.7 and 6.5.2.8.

#### RECORDS

- 6.5.2.10 Records of SRC activities shall be prepared, approved and distributed as indicated below:
  - a. Minutes of each SRC meeting shall be prepared, approved and forwarded to the Senior Vice President (PT&E) within 30 days following each meeting.
  - b. Reports of reviews encompassed by Section 6.5.2.7 e, f, g and h above, shall be prepared, approved and forwarded to the Senior Vice President (PT&E) within 30 days following completion of the review.
  - c. Audit reports encompassed by Section 6.5.2.8 above, shall be forwarded to the Senior Vice President (PT&E) and to the management positions responsible for the areas audited within 30 days after completion of the audit.

#### 6.6 REPORTABLE OCCURRENCE ACTION

- 6.6.1 The following actions shall be taken for Reportable Occurrences:
  - a. The Commission shall be notified and/or a report submitted pursuant to the requirements of Specification 6.12.
  - b. Each Reportable Occurrence requiring 24 hour notification to the Commission shall be reviewed by the PSC and submitted to SRC, the Assistant Director, Power Production by the Superintendent of Power Plant.

#### 6.7 SAFETY LIMIT VIOLATION

- 6.7.1 The following actions shall be taken in the event a Safety Limit is violated:
  - a. The facility shall be placed in at least hot shutdown within one hour.
  - b. The Nuclear Regulatory Commission shall be notified and a report submitted pursuant to the requirements of 10 CFR 50.36 and Specification 6.12.3.1

## 6.8 PROCEDURES

6.8.1 Written procedures shall be established, implemented and maintained covering the activities referenced below:

- a. The applicable procedures recommended in Appendix "A" of Regulatory Guide 1.33, November, 1972.
- b. Refueling operations.
- c. Surveillance and test activities of safety related equipment.
- d. Security Plan implementation.
- e. Emergency Plan implementation.

6.8.2 Each procedure of 6.8.1 above, and changes thereto, shall be reviewed by the PSC and approved by the Superintendent of Power Plant prior to implementation and reviewed periodically as set forth in administrative procedures.

6.8.3 Temporary changes to procedures of 6.8.1 above may be made provided:

- a. The intent of the original procedure is not altered.
- b. The change is approved by two members of the plant staff, at least one of whom holds a Senior Reactor Operator's License on the unit affected.
- c. The change is documented, reviewed by the PSC and approved by the Superintendent of Power Plant within 14 days of implementation.

## 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. Records of sealed source leak tests and results.
- i. Records of annual physical inventory of all source material of 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.

- h. Records of in-service inspections performed pursuant to these Technical Specifications.
- i. Records of Quality Assurance activities required by Section 17 of the Quality Assurance Manual for Operations.
- j. Records of reviews performed for changes made to procedures or equipment or reviews of tests and experiments pursuant to 10 CFR 50.59.
- k. Records of meetings of the PSC and the SRC.

#### 6.10 RADIATION PROTECTION PROGRAM

Procedures for personnel radiation protection shall be prepared consistent with the requirements of 10 CFR Part 20 and shall be approved, maintained and adhered to for all operations involving personnel radiation exposure.

#### 6.11 RESPIRATORY PROTECTION PROGRAM

##### ALLOWANCE

- 6.11.1 Pursuant to 10 CFR 20.103(c)(1) and (3), allowance may be made for the use of respiratory protective equipment in conjunction with activities authorized by the operating license for this facility in determining whether individuals in restricted areas are exposed to concentrations in excess of the limits specified in Appendix B, Table I, Column 1, of 10 CFR 20, subject to the following conditions and limitation.
- a. The limits provided in Section 20.103(a) and (b) shall not be exceeded.
  - b. If the radioactive material is of such form that intake through the skin or other additional route is likely, individual exposures to radioactive material shall be controlled so that the radioactive content of any critical organ from all routes of intake averaged over 7 consecutive days does not exceed that which would result from inhaling such radioactive material for 40 hours at the pertinent concentration values provided in Appendix B, Table I, Column 1, of 10 CFR 20.
  - c. For radioactive materials designated "Sub" in the "Isotope" column of Appendix B, Table I, Column 1 of 10 CFR 20, the concentration value specified shall be based upon exposure to the material as an external radiation source. Individual exposures to these materials shall be accounted for as part of the limitation on individual dose in §20.101. These materials shall be subject to applicable process and other engineering controls.

PROTECTION PROGRAM

- 6.11.2 In all operations in which adequate limitation of the inhalation of radioactive material by the use of process or other engineering controls is impracticable, the licensee may permit an individual in a restricted area to use respiratory protective equipment to limit the inhalation of airborne radioactive material, provided:
- a. The limits specified in 6.11.1 above, are not exceeded.
  - b. Respiratory protective equipment is selected and used so that the peak concentrations of airborne radioactive material inhaled by an individual wearing the equipment do not exceed the pertinent concentration values specified in Appendix B, Table I, Column 1, of 10 CFR 20. For the purposes of this subparagraph, the concentration of radioactive material that is inhaled when respirators are worn may be determined by dividing the ambient airborne concentration by the protection factor specified in Table 6.11-1 for the respirator protective equipment worn. If the intake of radioactivity is later determined by other measurements to have been different than that initially estimated, the later quantity shall be used in evaluating the exposures.
  - c. The licensee advises each respirator user that he may leave the area at any time for relief from respirator use in case of equipment malfunction, physical or psychological discomfort, or any other condition that might cause reduction in the protection afforded the wearer.
  - d. The licensee maintains a respiratory protective program adequate to assure that the requirements above are met and incorporates practices for respiratory protection consistent with those recommended by the American National Standards Institute (ANSI-Z88.2-1969). Such a program shall include:
    1. Air sampling and other surveys sufficient to identify the hazard, to evaluate individual exposures, and to permit proper selection of respiratory protective equipment.
    2. Written procedures to assure proper selection, supervision, and training of personnel using such protective equipment.
    3. Written procedures to assure the adequate fitting of respirators; and the testing of respiratory protective equipment for operability immediately prior to use.
    4. Written procedures for maintenance to assure full effectiveness of respiratory protective equipment, including issuance, cleaning and decontamination, inspection, repair, and storage.

5. Written operational and administrative procedures for proper use of respiratory protective equipment including provisions for planned limitations on working times as necessitated by operational conditions.
  6. Bioassays and/or whole body counts of individuals (and other surveys, as appropriate) to evaluate individual exposures and to assess protection actually provided.
- e. The licensee shall use equipment approved by the U.S. Bureau of Mines under its appropriate Approval Schedules as set forth in Table 6.11-1. Equipment not approved under U.S. Bureau of Mines Approval Schedules shall be used only if the licensee has evaluated the equipment and can demonstrate by testing, or on the basis of reliable test information, that the material and performance characteristics of the equipment are at least equal to those afforded by U.S. Bureau of Mines approved equipment of the same type, as specified in Table 6.11.1.
  - f. Unless otherwise authorized by the Commission, the licensee shall not assign protection factors in excess of those specified in Table 6.11-1 in selecting and using respiratory protective equipment.

#### REVOCATION

- 6.11.3 The specifications of Section 6.11 shall be revoked in their entirety upon adoption of the proposed change to 10 CFR 20, Section 20.103, which would make such provisions unnecessary.

TABLE 6.11-1

PROTECTION FACTORS FOR RESPIRATORS

DESCRIPTION	MODES <u>1/</u>	PROTECTION FACTORS <u>2/</u> PARTICULATES AND VAPORS AND GASES EXCEPT TRITIUM OXIDE <u>3/</u>		GUIDES TO SELECTION OF EQUIPMENT BUREAU OF MINES/NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH APPROVALS
<u>I. AIR-PURIFYING RESPIRATORS</u>				
Facepiece, half-mask <u>4/</u> , <u>7/</u>	NP		5	30 CFR Part 11 Subpart K
Facepiece, full <u>7/</u>	NP		100	30 CFR Part 11 Subpart K
<u>II. ATMOSPHERE-SUPPLYING RESPIRATOR</u>				
<u>1. Airline respirator</u>				
Facepiece, Half-mask	CF		100	30 CFR Part 11 Subpart J
Facepiece, Full	CF		1,000	30 CFR Part 11 Subpart J
Facepiece, Full <u>7/</u>	D		100	30 CFR Part 11 Subpart J
Facepiece, Full	PD		1,000	30 CFR Part 11 Subpart J
Hood	CF		<u>5/</u>	30 CFR Part 11 Subpart J
Suit	CF		<u>5/</u>	<u>6/</u>
<u>2. Self-contained breathing apparatus (SCBA)</u>				
Facepiece, Full <u>7/</u>	D		100	30 CFR Part 11 Subpart H
Facepiece, Full	PD		1,000	30 CFR Part 11 Subpart H
Facepiece, Full	R		100	30 CFR Part 11 Subpart H
<u>III. COMBINATION RESPIRATOR</u>				
Any combination of air- purifying and atmosphere- supplying respirator			Protection factor for type and mode of opera- tion as listed above.	30 CFR Part 11 11.63(b)

TABLE 6.11-1 NOTES

1/ See the following symbols:

CF: Continuous Flow  
D: Demand  
NP: Negative Pressure (i.e., negative phase during inhalation)  
PD: Pressure Demand (i.e., always positive pressure)  
R: Recirculating (closed circuit)

2/ (a) For purposes of this specification the protection factor is a measure of the degree of protection afforded by a respirator, defined as the ratio of the concentration of airborne radioactive material outside the respiratory protective equipment to that inside the equipment (usually inside the facepiece) under conditions of use. It is applied to the ambient airborne concentration to estimate the concentration inhaled by the wearer according to the following formula:

$$\text{Concentration Inhaled} = \frac{\text{Ambient Airborne Concentration}}{\text{Protection Factor}}$$

(b) The protection factors apply:

- (i) only for trained individuals wearing properly fitted respirators used and maintained under supervision in a well-planned respiratory protective program.
- (ii) for air-purifying respirators only when high efficiency (above 99.9% removal efficiency by U.S. Bureau of Mines type dioctyl phthalate (DOP) test) particulate filters and/or sorbents appropriate to the hazard are used in atmospheres not deficient in oxygen.
- (iii) for atmosphere-supplying respirators only when supplied with adequate respirable air.

3/ Excluding radioactive contaminants that present an absorption or submersion hazard. For tritium oxide approximately half of the intake occurs by absorption through the skin so that an overall protection factor of not more than approximately 2 is appropriate when atmosphere-supplying respirators are used to protect against tritium oxide. Air-purifying respirators are not recommended for use against tritium oxide. See also footnote 5/, below, concerning supplied-air suits and hoods.

4/ Under chin type only. Not recommended for use where it might be possible for the ambient airborne concentration to reach instantaneous values greater than 50 times the pertinent values in Appendix B, Table I, Column 1 of 10 CFR 20.

- 5/ Appropriate protection factors must be determined taking account of the design of the suit or hood and its permeability to the contaminant under conditions of use. No protection factor greater than 1,000 shall be used except as authorized by the Commission.
- 6/ No approval schedules currently available for this equipment. Equipment must be evaluated by testing or on basis of available test information.
- 7/ Only for shaven faces.

NOTE 1: Protection factors for respirators, as may be approved by the U. S. Bureau of Mines or the National Institute for Occupational Safety and Health according to approval schedules for respirators to protect against airborne radionuclides, may be used to the extent that they do not exceed the protection factors listed in this Table. The protection factors in this Table may not be appropriate to circumstances where chemical or other respiratory hazards exist in addition to radioactive hazards. The selection and use of respirators for such circumstances should take into account approvals of the U. S. Bureau of Mines or the National Institute for Occupational Safety and Health in accordance with its applicable schedules.

NOTE 2: Radioactive contaminants for which the concentration values in Appendix B, Table I of 10 CFR part 20 are based on internal dose due to inhalation may, in addition, present external exposure hazards at higher concentrations. Under such circumstances, limitations on occupancy may have to be governed by external dose limits.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 16 TO FACILITY LICENSE NO. DPR-51

ARKANSAS POWER & LIGHT COMPANY

ARKANSAS NUCLEAR ONE - UNIT NO. 1

DOCKET NO. 50-313

INTRODUCTION

By letter dated September 30, 1976, Arkansas Power & Light Company (AP&L) requested changes to the Technical Specifications appended to Facility License No. DPR-51 for the Arkansas Nuclear One - Unit No. 1 (ANO-1) facility. The proposed changes consist of revisions to the Administrative Controls, Sections 6.1 to 6.11. The licensee's September 30, 1976 request supersedes their previous request dated December 10, 1975 (except as it related to Reporting Requirements - Section 6.12). The Reporting Requirements were revised in Amendment No. 9 (issued January 23, 1976) to the license.

DISCUSSION

By letter dated October 15, 1974, the Commission requested that AP&L revise the Administrative Controls section of the ANO-1 Technical Specifications "to be consistent with the form and content" of the corresponding section of the NRC's Standard Technical Specifications enclosed in the letter. The proposed changes are administrative in nature and are intended to provide uniform license requirements. Areas covered by the proposed specifications include plant staff and management organization, qualifications, training, and responsibilities, actions to be taken in the event of a reportable occurrence or safety limit violation, plant procedures, record retention, and plant radiation and respiratory protection programs.

EVALUATION

The significant specification changes proposed by AP&L include:

1. Update of the qualifications of the Health Physics Supervisor to meet the requirements of Regulatory Guide 1.8, September 1975. (Specification 6.3.1)

2. Update of the minimum shift crew composition (Table 6.2-1) to meet present NRC requirements.
3. Revision of Figures 6.2-1 (Management Organization Chart) and 6.2-2 A and B (Functional Organization for Plant Operation) to reflect current management and staff organizations.
4. Delineation of the audit responsibilities of the Safety Review Committee (Specification 6.5.2.8).
5. Changes to the Respiratory Protection Program to update the specifications (6.11) to present NRC requirements.
6. Revision of all Section 6 specifications to be consistent with the format and content of the NRC Standard Technical Specifications.

During our review of the proposed changes, we determined that certain modifications to the proposed specifications were necessary to conform with NRC requirements. These changes were discussed with and accepted by the licensee's staff and have been incorporated into the amendment. These modifications include:

1. A requirement for all applicable procedures recommended in Appendix A of Regulatory Guide 1.33, November, 1972, and
2. elimination of the Superintendent of Power Plant's authority to make temporary changes to procedures which changes the intent of the procedures without being reviewed by the Plant Safety Committee.

We have reviewed the proposed specifications, as modified, and concluded that: (1) the facility staff qualifications and training program conform with Regulatory Guide 1.8, (2) the administrative procedures and facility review and audit are consistent with Regulatory Guide 1.33, and (3) the administrative controls are consistent with the requirements being incorporated in Technical Specifications for new licensed facilities. On this basis the proposed technical specifications, as modified are acceptable.

#### 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.

Date: December 7, 1976

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NO. 50-313

ARKANSAS POWER & LIGHT COMPANY

NOTICE OF ISSUANCE OF AMENDMENT TO FACILITY  
OPERATING LICENSE

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 16 to Facility Operating License No. DPR-51, issued to Arkansas Power & Light Company (the licensee), which revised Technical Specifications for operation of the Arkansas Nuclear One - Unit No. 1 (the facility) located in Pope County, Arkansas. The amendment is effective ninety (90) days following the date of its issuance.

The amendment revised the provisions in the Technical Specifications relating to Administrative Controls for the facility.

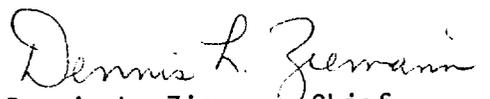
The application for the amendment complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter 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.

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 applications for amendment dated December 10, 1975 and September 30, 1976, (2) Amendment No. 16 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 72801. A single 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 7th day of December, 1976.

FOR THE NUCLEAR REGULATORY COMMISSION

  
Dennis L. Ziemann, Chief  
Operating Reactors Branch #2  
Division of Operating Reactors