ARKANSAS POWER & LIGHT COMPANY

DOCKET NO. 50-313

ARKANSAS NUCLEAR ONE - UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 9
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 December 10, 1975 (as it relates to reporting requirements), 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. An environmental statement or negative declaration need not be prepared in connection with the issuance of this amendment.

2. Accordingly, the license is amended by a change to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 2.c(2) of Facility License No. DPR-51 is hereby amended to read as follows:

OFFICE ▶						
SURNAME ▶						
DATE ▶						

"(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications, as revised."

3. This license amendment becomes effective 60 days from the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Original Signed by:
Dennis L. Ziemann

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

Attachment:
Changes to the
Technical Specifications

Date of Issuance:

JAN 23 1976

OFFICE ▶						
SURNAME ▶						
DATE ▶						

ATTACHMENT TO LICENSE AMENDMENT NO. 9

FACILITY OPERATING LICENSE NO. DPR-51

DOCKET NO. 50-313

Replace existing pages i, ii, 6, 86, 126, 127, 138 and 140 through 146 of the Technical Specifications contained in Appendix A with the attached revised pages bearing the same numbers. The changed areas on the revised pages are reflected by a marginal line. Also, pages 5, 125, 137 and 139 are enclosed as a matter of convenience in updating the Technical Specifications. There are no changes on these pages.

TABLE OF CONTENTS

1.7 REACTOR BUILDING

Reactor building integrity exists when the following conditions are satisfied:

a. The equipment hatch is closed and sealed and both doors of the personnel lock and emergency lock are closed and sealed, or b. below.

b. At least one door on each of the personnel lock and emergency lock is closed and sealed during personnel access or repair.

c. All non-automatic reactor building isolation valves and blind flanges are closed as required.

d. All automatic reactor building isolation valves are operable or deactivated in the closed position.

e. The reactor building leakage determined at the last testing interval satisfies Specification 4.4.1

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Should the inspection of one of the wires reveal any significant physical change (pitting or loss of area), additional wires shall be removed from the applicable surveillance tendons and inspected to determine the extent and cause change. The sheathing filler will be sampled and inspected for changes in physical appearance.

4.4.2.2 Inspection Intervals and Reports

The inspection intervals, measured from the date of the initial structural test, shall be one year, three years, five years, and every five years thereafter or as modified based on experience. Tendon surveillance may be conducted during reactor operation provided design conditions regarding loss of adjacent tendons are satisfied at all times.

A quantitative analytical report covering results of each inspection shall be submitted (required by Technical Specification 6.12.4) and shall especially address the following conditions, should they develop:

(1) Broken wires.

(2) The force-time trend line for any tendon, when extrapolated, that extends beyond either the upper or lower bounds of the predicted design band.

(3) Unexpected changes in tendon conditions or sheathing filler properties.

4.4.2.3 End Anchorage Concrete Surveillance

A. The end anchorages of the surveillance tendons and adjacent concrete surface will be inspected.

B. The inspection interval will be one-half year and one year after the structural integrity test.

C. The selected inspection location shall include:

(1) Four (4) locations on one buttress (hoop tendon anchorage)

(2) Two (2) locations on the top of the ring girder (vertical tendon anchorage).

(3) One (1) location on the ring girder (dome tendon anchorage).

2. Either the Chairman or Acting Chairman shall be present.

3. No more than a minority of the quorum shall have line responsibility for nuclear unit operation.

e. Purpose:

1. The Safety Review Committee shall conduct a critical examination of design, construction and those aspects of monitoring nuclear unit operation necessary to formulate an independent evaluation of contemplated actions, and after-the-fact investigations of anomalies.

2. The Safety Review Committee shall be constituted by a written charter stating:

a. Subjects within purview of the board.
b. Responsibility and authority.
c. Mechanisms for convening meetings.
d. Provisions for use of subgroups.
e. Authority for access to unit records.
f. Reporting requirements.

f. Authority and Responsibility:

The Safety Review Committee shall be advisory to the Senior Vice President, Production, Transmission and Engineering (PT&E) and AP&L corporate management.

g. Review and Audit:

The board will verify that: nuclear unit operation is consistent with Company policy, rules, approved operating procedures and license provisions; unusual events are promptly investigated and corrected in a manner which reduces the probability of recurrence of such events; trends are detected which may not be apparent to a day-to-day observer.

The operation of the nuclear unit(s) shall be formally audited on a periodic bases. These audits shall be performed no less frequently than semi-annually. Periodic review of the activity shall be performed by the board to assure that such audits are being accomplished in accordance with requirements of Technical Specifications. Such audits shall include verification of conformance with normal, off normal, maintenance and emergency surveillance, test and radiation control procedures and the Emergency and Security Plans. These audits shall be performed in accordance with appropriate written instructions or procedures and shall include verification of compliance with internal rules, procedures and regulations and license provisions, performance of the operating staff, and corrective actions following

anomalies. Written reports of such audits shall be incorporated in the records of the board and disseminated to appropriate members of management, including those having responsibility in the area audited. Follow-up action, including re-audit of deficient areas, shall be taken where indicated and the results reported to responsible management levels on a formal basis.

Subjects for review shall include:

1. Proposed tests and experiments, and results thereof, when these constitute an unreviewed safety question defined in 10 CFR 50.59.

2. Proposed changes in procedures, equipment, or systems which may involve an unreviewed safety question as defined in 10 CFR 50.59(a)(2) or changes which are referred by the Plant Superintendent. Also, new procedures which may affect nuclear safety.

3. Proposed Technical Specification or license changes.

4. Violations of statutes, regulations, orders, Technical Specifications, license requirements, or internal procedures or instructions having safety significance.

5. Significant operating abnormalities or deviations from normal performance of unit equipment whose failure would affect safe shutdown of the plant.

6. Reportable occurrences described in Technical Specification 6.12.3.1.

7. The Emergency Plans and procedures.

8. The Industrial Security Plan and procedures.

9. Environmental monitoring.

10. Nuclear safety matters deemed essential to the safe operation of the facility by the Superintendent, the Plant Safety Committee, the Manager, Nuclear Services, the Director Power Production, or the Senior Vice President (PT&E).

11. Reports and meeting minutes of the Plant Safety Committee.

12. Reports submitted to the NRC and associated responses.

h. Minutes:

Meeting minutes shall be prepared, formally approved, retained and promptly distributed to board members and other appropriate members of management having responsibility in the areas reviewed.

6.5 ACTION TO BE TAKEN IN THE EVENT OF A REPORTABLE OCCURRENCE DESCRIBED IN TECHNICAL SPECIFICATION 6.12.3.1

6.5.1 Any reportable occurrence described in Technical Specification 6.12.3.1 shall be reported immediately to the Manager, Nuclear Services, the Director Power Production, and the Senior Vice President (PT&E) and promptly reviewed by the Plant Safety Committee.

6.5.2 The Plant Safety Committee shall prepare a separate report for each reportable occurrence described in Technical Specification 6.12.3.1. This report shall include an evaluation of the cause of the occurrence, a record of the corrective action taken, and recommendations for appropriate action to prevent or reduce the probability of a recurrence.

6.5.3 Copies of all such reports shall be submitted to the Superintendent for distribution to the Manager, Nuclear Services, the Director Power Production, the Senior Vice President (PT&E), and to the Chairman of the Safety Review Committee for review and approval of any recommendations.

6.5.4 The Senior Vice President (PT&E) shall report the circumstances of any reportable occurrence described in Technical Specification 6.12.3.1 to the NRC as specified in Section 6.12, "Plant Reporting Requirements".

6.10 INDUSTRIAL SECURITY PROGRAM

6.10.1 An industrial security program shall be maintained throughout the life of the plant in accordance with the provisions of the ANO Industrial Security Plan. Annual review of the Plant Security Plan will be performed.

6.10.2 Investigations of all attempted or actual security infractions shall be conducted by the Superintendent, in cooperation with any Federal, State, or local agencies involved, and a report filed with the Manager, Nuclear Services, the Director Power Production, Senior Vice President (PT&E), and Chairman of the Safety Review Committee.

6.10.3 Industrial Security violations shall be reported as indicated in Specification 6.12.

6.11 RECORDS RETENTION

6.11.1 All records and logs relative to the following areas shall be retained for 5 years:

a. Records of normal nuclear unit operation, including power levels and periods of operation at each power level.

b. Records of principal maintenance activities, including inspection, repair, substitution or replacement of principal items of equipment pertaining to nuclear safety.

c. Records of reportable occurrences described in Technical Specification 6.12.3.1.

d. Records of periodic checks, inspections and calibrations performed to verify that surveillance requirements are being met.

e. Records of any special reactor test or experiments.

f. Records of changes made in the Operating Procedures.

g. Records of radioactive shipments.

h. Test results, in units of microcuries, for leak tests performed pursuant to Specification 4.14.

i. Record of annual physical inventory verifying accountability of sources on record.

6.11.2 All records relative to the following areas shall be retained for the life of the plant:

a. Records and drawing changes reflecting plant design modifications made to systems and equipment described in the Final Safety Analysis Report.

b. Records of new and spent fuel inventory, transfers of fuel, and assembly histories.

c. Records of plant radiation and contamination surveys.

d. Records of off-site environmental monitoring surveys.

e. Records of radiation exposure of all plant personnel, and others who enter radiation control areas.

f. Records of radioactivity in liquid and gaseous wastes related to the environment.

g. Records of transient or operational cycling for those plant components that have been designed to operate safely for a limited number of transients or operational cycles.

h. Records of current individual plant staff members indicating qualifications, experience, training and retraining.

i. Reactor coolant system inservice inspections.

j. Minutes of meeting of the Safety Review Committee.

6.12 REPORTING REQUIREMENTS

6.12.1 In addition to the applicable reporting requirements of Title 10, Code of Federal Regulations, the following identified reports shall be submitted to the Director of the appropriate Regional Office of Inspection and Enforcement unless otherwise noted.

6.12.2 Routine Reports

6.12.2.1 Startup Report

A summary report of plant startup and power escalation testing shall be submitted following (1) receipt of an operating license, (2) amendment to the license involving a planned increase in power level, (3) installation of fuel that has a different design or has been manufactured by a different fuel supplier, and (4) modifications that may have significantly altered the nuclear, thermal, or hydraulic performance of the plant. The report shall address each of the tests identified in the FSAR and shall in general include a description of the measured values of the operating conditions or characteristics obtained during the test program and a comparison of these values with design predictions and specifications. Any corrective actions that were required to obtain satisfactory operation shall also be described. Any additional specific details required in license conditions based on other commitments shall be included in this report.

Startup reports shall be submitted within (1) 90 days following completion of the startup test program, (2) 90 days following resumption or commencement of commercial power operation, or (3) 9 months following initial criticality, whichever is earliest. If the Startup Report does not cover all three events (i.e., initial criticality, completion of startup test program, and resumption or commencement of commercial power operation), supplementary reports shall be submitted at least every three months until all three events have been completed.

6.12.2.2 Annual Operating Report[1/]

Routine operating reports covering the operation of the unit during the previous calendar year should be submitted prior to March 1 of each year. The initial report shall be submitted prior to March 1 of the year following initial criticality.

The annual operating reports made by licensees shall provide a comprehensive summary of the operating experience gained during the year, even though some repetition of previously reported information may be involved. References in the annual operating report to previously submitted reports shall be clear.

1/ A single submittal may be made for a multiple unit station. The submittal should combine those sections that are common to all units at the station.

Each annual operating report shall include:

(a) A narrative summary of operating experience during the report period relating to safe operation of the facility, including safety-related maintenance not covered in item (b) (5).

(b) For each outage or forced reduction in power[2/] of over twenty percent of design power level where the reduction extends for greater than four hours:

(1) the proximate cause and the system and major component involved (if the outage or forced reduction in power involved equipment malfunction);

(2) a brief discussion of (or reference to reports of) any reportable occurrences pertaining to the outage or power reduction;

(3) corrective action taken to reduce the probability of recurrence, if appropriate;

(4) operating time lost as a result of the outage or power reduction (for scheduled or forced outages,[3/] use the generator off-line hours; for forced reductions in power, use the approximate duration of operation at reduced power);

(5) a description of major safety-related corrective maintenance performed during the outage or power reduction, including the system and component involved and identification of the critical path activity dictating the length of the outage or power reduction; and

(6) a report of any single release of radioactivity or single radiation exposure specifically associated with the outage which accounts for more than 10% of the allowable annual values.

(c) A tabulation on an annual basis of the number of station, utility and other personnel (including contractors) receiving exposures greater than 100 mrem/yr and their associated man rem exposure according to work and job functions,[4/] e.g., reactor operations and surveillance, inservice inspection, routine maintenance, special maintenance (describe maintenance), waste processing, and refueling.

[2/] The term "forced reduction in power" is normally defined in the electric power industry as the occurrence of a component failure or other condition which requires that the load on the unit be reduced for corrective action immediately or up to and including the very next weekend. Note that routine preventive maintenance, surveillance and calibration activities requiring power reductions are not covered by this section.

[3/] The term "forced outage" is normally defined in the electric power industry as the occurrence of a component failure or other condition which requires that the unit be removed from service for corrective action immediately or up to and including the very next weekend.

[4/] This tabulation supplements the requirements of 20.407 of 10 CFR part 20.

The dose assignment to various duty functions may be estimates based on pocket dosimeter, TLD, or film badge measurements. Small exposures totalling less than 20% of the individual total dose need not be accounted for. In the aggregate, at least 80% of the total whole body dose received from external sources shall be assigned to specific major work functions.

(d) Indications of failed fuel resulting from irradiated fuel examinations, including eddy current tests, ultrasonic tests, or visual examinations completed during the report period.

6.12.2.3 Monthly Operating Report

Routine reports of operating statistics and shutdown experience shall be submitted on a monthly basis to the Director, Office of Management Information and Program Control, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, with a copy to the appropriate Regional Office, by the Tenth of each month following the calendar month covered by the report.

6.12.3 Reportable Occurrences

Reportable occurrences, including corrective actions and measures to prevent reoccurrence, shall be reported to the NRC as required below. Supplemental reports may be required to fully describe final resolution of occurrence. In case of corrected or supplemental reports, a licensee event report shall be completed and reference shall be made to the original report date.

6.12.3.1 Prompt Notification With Written Followup

The types of events listed below shall be reported as expeditiously as possible, but within 24 hours, by telephone and confirmed by telegraph, mailgram, or facsimile transmission to the Director of the appropriate Regional Office, or his designate no later than the first working day following the event, with a written followup report within two weeks. A copy of the confirmation and the written followup report shall also be sent to the Director, Office of Management Information and Program Control, USNRC. The written report shall include, as a minimum, a completed copy of a licensee event report form. Information provided on the licensee event report form shall be supplemented, as needed, by additional narrative material to provide complete explanation of the circumstances surrounding the event.

(a) Failure of the reactor protection system or other systems subject to limiting safety system settings to initiate the required protective function by the time a monitored parameter reaches the setpoint specified as the limiting safety system setting in the Technical Specifications or failure to complete the required protective function.

NOTE:

Instrument drift discovered as a result of testing need not be reported under this item but may be reportable under items (e), (f), or 6.12.3.2(a).

(b) Operation of the unit or affected systems when any parameter or operation subject to a limiting condition is less conservative than the least conservative aspect of the limiting condition for operation established in the Technical Specifications.

NOTE:

If specified action is taken when a system is found to be operating between the most conservative and the least conservative aspects of a limiting condition for operation listed in the Technical Specifications, the limiting condition for operation is not considered to have been violated and need not be reported under this item, but it may be reportable under item 6.12.3.2(b) below.

(c) Abnormal degradation discovered in fuel cladding, reactor coolant pressure boundary, or primary containment.

NOTE:

Leakage of valve packing or gaskets within the limits for identified leakage set forth in the Technical Specifications need not be reported under this item.

(d) Reactivity anomalies involving disagreement with the predicted value of reactivity balance under steady state conditions during power operation greater than or equal to 1% ΔK/K; a calculated reactivity balance indicating a shutdown margin less conservative than specified in the Technical Specifications; short-term reactivity increases that correspond to a reactor period of less than 5 seconds or, if subcritical, an unplanned reactivity insertion of more than 0.5% ΔK/K or occurrence of any unplanned criticality.

(e) Failure or malfunction of one or more components which prevents or could prevent, by itself, the fulfillment of the functional requirements of system(s) used to cope with accidents analyzed in the FSAR.

(f) Personnel error or procedural inadequacy which prevents or could prevent, by itself, the fulfillment of the functional requirements of systems required to cope with accidents analyzed in the FSAR.

NOTE:

For items 6.12.3.1(e) and (f) reduced redundancy that does not result in a loss of system function need not be reported under this section but may be reportable under items 6.12.3.2(b) and (c) below.

(g) Conditions arising from natural or man-made events that, as a direct result of the event require plant shutdown, operation of safety systems, or other protective measures required by Technical Specifications.

(h) Errors discovered in the transient or accident analyses or in the methods used for such analyses as described in the safety analysis report or in the bases for the Technical Specifications that have or could have permitted reactor operation in a manner less conservative than assured in the analyses.

(i) Performance of structures, systems, or components that requires remedial action or corrective measures to prevent operation in a manner less conservative than assumed in the accident analyses in the safety analysis report or Technical Specifications bases; or discovery during plant life of conditions not specifically considered in the safety analysis report or Technical Specifications that require remedial action or corrective measures to prevent the existence or development of an unsafe condition.

NOTE:

This item is intended to provide for reporting of potentially generic problems.

6.12.3.2 Thirty Day Written Reports

The reportable occurrences discussed below shall be the subject of written reports to the Director of the appropriate Regional Office within thirty days of occurrence of the event. A copy of the written report shall also be sent to the Director, Office of Management of Information and Program Control. The written report shall include, as a minimum, a completed copy of a licensee event report form. Information provided on the licensee event report form shall be supplemented, as needed, by additional narrative material to provide complete explanation of the circumstances surrounding the event.

(a) Reactor protection system or engineered safety feature instrument settings which are found to be less conservative than those established by the Technical Specifications but which do not prevent the fulfillment of the functional requirements of affected systems.

(b) Conditions leading to operation in a degraded mode permitted by a limiting condition for operation or plant shutdown required by a limiting condition for operation.

Note:

Routine surveillance testing, instrument calibration, or preventative maintenance which require system configurations as described in items (a) and (b) above need not be reported except where test results themselves reveal a degraded mode as described above.

(c) Observed inadequacies in the implementation of administrative or procedural controls which threaten to cause reduction of degree of redundancy provided in reactor protection systems or engineered safety feature systems.

(d) Abnormal degradation of systems other than those specified in item 6.12.3.1(c) above designed to contain radioactive material resulting from the fission process.

NOTE:

Sealed sources or calibration sources are not included under this item. Leakage of valve packing or gaskets within the limits for identified leakage set forth in Technical Specifications need not be reported under this item.

6.12.4 Unique Reporting Requirements

Unique reports cover inspections, tests, and maintenance that are appropriate to assure safe operation of the plant. The frequency and content of these reports are determined on an individual case basis and designated in these Technical Specifications. Unique reports shall be submitted in writing to the Director of the appropriate Inspection and Enforcement Regional Office within 90 days of the completion of the tests, inspections, and maintenance.

The subjects of unique reports shall include:

(a) Tendon surveillance. (Specification 4.4.2)