

October 11, 1985

Docket No. 50-368

Mr. John M. Griffin
Senior Vice President
Energy Supply
Arkansas Power & Light Company
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Dear Mr. Griffin:

The Commission has issued the enclosed Amendment No. 69 to Facility Operating License No. NPF-6 for Arkansas Nuclear One, Unit No. 2. The amendment consists of changes to the Technical Specifications (TS) in response to your application dated March 13, 1985.

The amendment revises Table 3.8-1 of the TS related to containment electrical penetration conductor overcurrent protective devices.

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

Sincerely,

/s/

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

Enclosures:

1. Amendment No. 69 to NPF-6
2. Safety Evaluation

cc w/enclosures:

See next page

ORB#3:DL
PMKretuzer
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RSLee:dd
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Arkansas Nuclear One
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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

ARKANSAS POWER & LIGHT COMPANY

DOCKET NO. 50-368

ARKANSAS NUCLEAR ONE, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 69
License No. NPF-6

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Arkansas Power & Light Company (the licensee) dated March 13, 1985, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

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

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 69, 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



Edward J. Butcher, Acting Chief
Operating Reactors Branch #3
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: October 11, 1985

ATTACHMENT TO LICENSE AMENDMENT NO. 69

FACILITY OPERATING LICENSE NO. NPF-6

DOCKET NO. 50-368

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

Remove Pages

3/6 8-13
3/4 8-14
3/4 8-15

3/4 8-16

3/4 8-17

3/4 8-18
3/4 8-20

Insert Pages

3/6 8-13
3/4 8-14
3/4 8-15
3/4 8-15a
3/4 8-16
3/4 8-16a
3/4 8-17
3/4 8-17a
3/4 8-18
3/4 8-18a
3/4 8-20

TABLE 3.8-1

CONTAINMENT PENETRATION CONDUCTOR OVERCURRENT PROTECTIVE DEVICES

| Primary Device Number | Backup Device Number | Location of Devices | System Powered |
|-----------------------|---|---------------------|--|
| A. 6900 VAC | | | |
| 152-11 | 152-13, or 152-14, or 152-15 | Switchgear 2H1 | RCP 2P32A |
| 152-12 | 152-13, or 152-14, or 152-15 | Switchgear 2H1 | RCP 2P32D |
| 152-21 | 152-23, or 152-24, or 152-25 | Switchgear 2H2 | RCP 2P32B |
| 152-22 | 152-23, or 152-24, or 152-25 | Switchgear 2H2 | RCP 2P32C |
| B. 480 VAC | | | |
| 52-131 | None, circuit shall not be energized unless plant is shutdown | 2B1 | Containment Building Crane 2LM2 |
| 52-523 | 52-512 | 2B5 | Pressurizer Proportional Heater Bank 1 |
| 52-533 | 52-512 | 2B5 | Hydrogen Recombiner 1 |
| 52-623 | 52-612 | 2B6 | Pressurizer Proportional Heater Bank 2 |

TABLE 3.8-1 (Continued)

CONTAINMENT PENETRATION CONDUCTOR OVERCURRENT PROTECTIVE DEVICES

| Primary Device Number | Backup Device Number | Location of Devices | System Powered |
|-----------------------|----------------------|---------------------|--|
| 52-633 | 52-612 | 2B6 | Hydrogen Recombiner 2 |
| 52-731 | 52-732 | 2B7 | MCC 2B71 |
| 52-824 | 52-823 | 2B8 | MCC 2B81 |
| 52-922 | 52-912 | 2B9 | Pressurizer Backup Heater Bank 3 |
| 52-923 | 52-912 | 2B9 | Pressurizer Backup Heater Bank 5 |
| 52-1022 | 52-1012 | 2B10 | Pressurizer Backup Heater Bank 4 |
| 52-1023 | 52-1012 | 2B10 | Pressurizer Backup Heater Bank 6 |
| C. 480 VAC MCC | | | |
| 52-51A4 | 52-51H2 | MCC 2B51 | Reactor Cavity Cooling Fan 2VSF34A-1 |
| 52-51B2 | 52-51H3 | MCC 2B51 | Containment Sump Isolation MOV2CV-2060-1 |
| 52-51D3 | 52-51H4 | MCC 2B51 | Containment Recirculating Fan 2VSF31A-1 |

TABLE 3.8-1 (Continued)

CONTAINMENT PENETRATION CONDUCTOR OVERCURRENT PROTECTIVE DEVICES

| Primary Device Number | Backup Device Number | Location of Devices | System Powered |
|-----------------------|----------------------|---------------------|--|
| 52-51D4 | 52-51H5 | MCC 2B51 | Containment Recirculating Fan 2VSF31C-1 |
| 52-51E2 | 52-51H6 | MCC 2B51 | Reactor Drain Tank Drain Iso. Valve 2CV-2201-1 |
| 52-51E4 | 52-51C1 | MCC 2B51 | Pressurizer Relief Valve Isolation 2CV-4730-1 |
| 52-51F1 | 52-51H7 | MCC 2B51 | RCP Controlled Bleedoff Iso. Valve 2CV-4846-1 |
| 52-51F2 | 52-51H8 | MCC 2B51 | Safety Injection Tank 2T2A Discharge MOV 2CV-5003-1 |
| 52-51G2 | 52-51L2 | MCC 2B51 | Shutdown Cooling Return Header Iso. Valve 2CV-5084-1 |
| 52-51G3 | 52-51H9 | MCC 2B51 | Check Valve Leakage Drain Valve 2CV-5105-1 |
| 52-51H1 | 52-51L3 | MCC 2B51 | Safety Injection Tank 2T2B Discharge MOV 2CV-5023-1 |

TABLE 3.8-1 (Continued)
CONTAINMENT PENETRATION OVERCURRENT PROTECTIVE DEVICES

| Primary Device Number | Backup Device Number | Location of Devices | System Powered |
|-----------------------------|----------------------------|---------------------------|--|
| 52-51K1 | 52-51L4 | MCC 2B51 | Containment Sump Isola- tion MOV 2CV-5647-1 |
| 52-51K2 | 52-51J4 | MCC 2B51 | Pressurizer Relief Iso. Vlv. 2CV-4741-1 |

TABLE 3.8-1 (Continued)

CONTAINMENT PENETRATION CONDUCTOR OVERCURRENT PROTECTIVE DEVICES

| Primary Device Number | Backup Device Number | Location of Devices | System Powered |
|-----------------------|----------------------|---------------------|---|
| 52-51K3 | 52-51L5 | MCC 2B51 | Containment Air Purge Isolation Valve 2CV-8289-1 |
| 52-51K4 | 52-51L6 | MCC 2B51 | Containment Air Purge Isolation Valve 2CV-8291-1 |
| 52-51L1 | 52-51L7 | MCC 2B51 | Containment Vent Header Isolation Valve 2CV-2401-1 |
| 52-51M1 | 52-51L8 | MCC 2B51 | Regenerative Heat Exchanger Inlet Valve 2CV-4821-1 |
| 52-51N3 | 52-51L9 | MCC 2B51 | Reactor Cavity Cooling Fan Bypass Damper 2HCD8243-1 |
| 52-53G1 | 52-53A5 | MCC 2B53 | Containment Cooling Fan Bypass Damper Motor 2UCDM8203-1 |
| 52-53G2 | 52-53A6 | MCC 2B53 | Containment Cooling Fan Bypass Damper Motor 2UCDM8209-1 |
| 52-53H3 | 52-53H2 | MCC 2B53 | Pressurizer Spray Valve 2CV-4652 |

TABLE 3.8-1 (Continued)

CONTAINMENT PENETRATION CONDUCTOR OVERCURRENT PROTECTIVE DEVICES

| Primary Device Number | Backup Device Number | Location of Devices | System Powered |
|-----------------------|----------------------|---------------------|--------------------------------|
| 52-53L1 | 52-53K5 | MCC 2B53 | Containment Cooling Fan 2VSF1A |
| 52-53L2 | 52-53K6 | MCC 2B53 | Containment Cooling Fan 2VSF1B |

TABLE 3.8-1 (Continued)

CONTAINMENT PENETRATION CONDUCTOR OVERCURRENT PROTECTIVE DEVICES

| Primary Device Number | Backup Device Number | Location of Devices | System Powered |
|-----------------------|----------------------|---------------------|--|
| 52-54G2 | 52-54C5 | MCC 2B54 | H ₂ Purge Containment Iso. Valve 2CV-8233-1 |
| 52-54G3 | 52-54B4 | MCC 2B54 | H ₂ Purge Containment Iso. Valve 2CV-8259-2 |
| 52-54J2 | 52-54J3 | MCC 2B54 | Containment Elevator Motor 2MM6 |
| 52-54K2 | 52-54J4 | MCC 2B54 | Containment Building Lighting Panel 27 LA |
| 52-54K3 | 52-54J8 | MCC 2B54 | RCP 2P3A Oil Lift Pumps 2P63A1 & A2 |
| 52-54K4 | 52-54F3 | MCC 2B54 | RCP 2P32B Oil Lift Pumps 2P63B1 & B2 |
| 52-61A4 | 52-61H3 | MCC 2B61 | Reactor Cavity Cooling Fan 2VSF34B-2 |
| 52-61D3 | 52-61H4 | MCC 2B61 | Containment Recirculating Fan 2VSF31B-2 |
| 52-61D4 | 52-61H5 | MCC 2B61 | Containment Recirculating Fan 2VSF31D-2 |

TABLE 3.8-1 (Continued)

CONTAINMENT PENETRATION CONDUCTOR OVERCURRENT PROTECTIVE DEVICES

| Primary Device Number | Backup Device Number | Location of Devices | System Powered |
|-----------------------|----------------------|---------------------|---|
| 52-61F2 | 52-61H6 | MCC 2B61 | Safety Inject. Tank 2T2C Discharge MOV 2CV-5043-2 |
| 52-61G2 | 52-61K8 | MCC 2B61 | Check Valve Leakage Drain Valve 2CV-5106-2 |

TABLE 3.8-1 (Continued)

CONTAINMENT PENETRATION CONDUCTOR OVERCURRENT PROTECTIVE DEVICES

| Primary Device Number | Backup Device Number | Location of Devices | System Powered |
|-----------------------|----------------------|---------------------|---|
| 52-61G3 | 52-61H7 | MCC 2B61 | Reactor Coolant System Charging Line MOV 2CV-4831-2 |
| 52-61G4 | 52-61H8 | MCC 2B61 | Reactor Coolant System Charging Line MOV 2CV-4827-2 |
| 52-61H1 | 52-61K3 | MCC 2B61 | Safety Inj. Tank 2T2D Dis. MOV 2CV-5063-2 |
| 52-61H2 | 52-61K7 | MCC 2B61 | Containment Sump Iso. MOV 2CV-5648-2 |
| 52-61L2 | 52-61D2 | MCC 2B61 | Pressurizer Relief Iso. Vlv. 2CV-4731-2 |
| 52-61L3 | 52-61K4 | MCC 2B61 | Letdown Line Stop Valve 2CV-4820-2 |
| 52-61L4 | 52-61L1 | MCC 2B61 | Pressurizer Spray Vlv. 2CV-4651 |
| 52-61N2 | 52-61K6 | MCC 2B61 | Reactor Cavity Cooling Fan Damper 2HCD 8244-2 |
| 52-62E5 | 52-62C2 | MCC 2B62 | Shutdown Cooling Return Header Iso. Valve 2CV-5086-2 |

TABLE 3.8-1

CONTAINMENT PENETRATION CONDUCTOR OVERCURRENT PROTECTIVE DEVICES

| Primary Device Number | Backup Device Number | Location of Devices | System Powered |
|-----------------------|----------------------|---------------------|--|
| 52-63F2 | 52-63E1 | MCC 2B63 | Containment Chilled Water Isol. Valve 2CV-3850-2 |

TABLE 3.8-1 (Continued)

CONTAINMENT PENETRATION CONDUCTOR OVERCURRENT PROTECTIVE DEVICES

| <u>PRIMARY DEVICE NUMBER</u> | <u>BACKUP DEVICE NUMBER</u> | <u>LOCATION OF DEVICES</u> | <u>SYSTEM POWERED</u> |
|--------------------------------------|-------------------------------------|--------------------------------|--|
| 52-63G4 | 52-63E2 | MCC 2B63 | RCP Cooler Iso. Valve 2CV-5254-2 |
| 52-63L1 | 52-63J1 | MCC 2B63 | Containment Cooling Fan 2VSF1C |
| 52-63L2 | 52-63J2 | MCC 2B63 | Containment Cooling Fan 2VSF1D |
| 52-64D4 | 52-64B3 | MCC 2B64 | Containment Cooling Fan Bypass Damper Motor 2UCDM 8216-2 |
| 52-64E3 | 52-64B4 | MCC 2B64 | Pressurizer Auxiliary Spray MOV 2CV-4824-2 |
| 52-64E4 | 52-64C2 | MCC 2B64 | Containment Cooling Fan Bypass Damper Motor 2UCDM 8222-2 |
| 52-64J1 | 52-64B1 | MCC 2B64 | RCP 2P32C Oil Lift Pumps 2P63C1 & C2 |
| 52-64K1 | 52-64H2 | MCC 2B64 | RCP 2P32D Oil Lift Pumps 2P63D1 & D2 |

TABLE 3.8-1 (Continued)

CONTAINMENT PENETRATION CONDUCTOR OVERCURRENT PROTECTIVE DEVICES

| Primary Device Number | Backup Device Number | Location of Devices | System Powered |
|-----------------------|-----------------------|-------------------------------|---|
| <u>D. 480/277</u> | | | |
| 21PA-19 | 52-15C1 | Primary -21PA Backup -2B15 | Space Heater for RCP 2P32A |
| 21PA-25 | 52-15C1 | Primary -21PA Backup -2B15 | Space Heater for RCP 2P32B |
| 21PA-31 | 52-15C1 | Primary -21PA Backup -2B15 | Space Heater for RCP 2P32C |
| 21PA-20 | 52-15C1 | Primary -21PA Backup -2B15 | Space Heater for RCP 2P32D |
| <u>E. 125 VDC</u> | | | |
| 72-0318 | 72-0320 | DC Control Center 2D03 | Containment Bldg 125 VDC Lighting Panel 22DA |
| 72-26A3 | 72-26A2 | DC MCC 2D26 | Pressurizer Vent Valve 2CV-4740-2 |
| 72-27A3 | 72-27A2 | DC MCC 2D27 | Pressurizer Vent Valve 2CV-4698-1 |
| <u>F. 240 VAC</u> | | | |
| CEA 1 CB101 | CB3021 & CB3022 | 2C72 | CEA 1 |



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 69 TO FACILITY OPERATING LICENSE NO. NPF-6

ARKANSAS POWER & LIGHT COMPANY

ARKANSAS NUCLEAR ONE, UNIT 2

DOCKET NO. 50-368

Introduction

By letter dated March 13, 1985, Arkansas Power and Light Company (AP&L) proposed Technical Specification (TS) changes for ANO-2 to revise Table 3.8-1 "Containment Penetration Conductor Overcurrent Protective Devices." The following changes to the table are proposed by AP&L:

1. Breakers 52-51E4, 52-51C1, 52-51K2, 52-51J4, 52-61L2, 52-61D2, 52-53H3, 52-53H2, 52-61L4, 52-61L1, 52-54G2, 52-54C5, 52-54G3, and 52-54B4 are to be added to Table 3.8-1 due to plant modifications pertaining to low temperature overpressure protection (LTOP), pressurizer spray valve, and H₂ purge valves.
2. RCS sample line solenoid valves 2SV-4632, 2SV-4639 and 2SV-4665, which are protected by two redundant 6-amp fuses, are to be removed from the table since TS 3/4.8.2.5 references testable devices only.
3. The backup overcurrent protective devices for the pressurizer proportional and backup heaters are to be listed as the primary protective devices while the main load center feeder breakers are to be made the backup devices.
4. Pressurizer vent valve 2CV-4697-2 is to be removed and replaced with valve 2CV-4740-2 on Table 3.8-1.
5. Typographical errors are to be corrected on pages 3/4 8-16, 3/4 8-17, and 3/4 8-18 of Table 3.8-1.

Staff Evaluation

The licensee's FSAR states that ANO-2 is in compliance with Regulatory Guide 1.63 for its electric penetration assemblies. RG 1.63 recommends that electric penetration assemblies should be designed to withstand, without loss of mechanical integrity, the maximum short-circuit vs. time conditions that could occur given single random failures of circuit overload protection devices. The licensee has installed backup overcurrent protective devices for each circuit in the containment electric penetration assemblies.

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The licensee has provided the time-current characteristic curves for the electric penetrations' primary and secondary current interrupting devices. The data submitted show that the primary and backup circuit breakers for the modifications pertaining to LTOP, pressurizer spray valve, and H₂ purge valves are adequately designed to protect the penetration assemblies from normal and fault current conditions.

The primary overcurrent protective devices listed in Table 3.8-1 for the pressurizer proportional and backup heaters are located inside the containment and would not protect the penetration should a fault occur between the protective devices in containment and the penetration itself. The licensee is proposing to use the main 480-volt load center breakers (52-512, 52-612, 52-912 and 52-1012) as backup to the primary 480-volt load distribution breakers (52-523, 52-623, 52-922, 52-923, 52-1022, and 52-1023). The time-current characteristic curves for these breakers show that primary and backup breakers are coordinated such that the primary breakers will trip first. In addition, both will trip before the thermal capability of the electric penetration is reached during maximum short-circuit conditions.

The removal of the two redundant 6-amp fuses (RCS sample line solenoid valves) from Table 3.8-1 is appropriate since the Technical Specifications reference only circuit interrupting devices that can be operationally tested, and does not require resistance tests of fuses.

The removal of pressurizer vent valve-2CV-4697-2 and replacement with valve 2CV-4740-2, as well as the correction of typographical errors on Table 3.8-1 do not result in any changes to the overcurrent protection of the electric penetration assemblies.

Summary

The staff has reviewed the proposed TS changes to Table 3.8-1. The changes do not constitute a reduction in the integrity or reliability of the electric penetration assemblies. The proposed changes to the ANO-2 TS are therefore acceptable.

ENVIRONMENTAL CONSIDERATION

This amendment involves a change in the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously published a proposed finding that the amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR §51.22(c)(9). Pursuant to 10 CFR §51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

CONCLUSION

We have concluded, based on the considerations discussed above, that (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) such activities will be conducted in compliance with the Commission's regulations, and the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Date: October 11, 1985

Principal Contributor:
Ray Mullikin, Region IV