

JAN 6 1983

Docket No. 50-368

Mr. William Cavanaugh, III
Senior Vice President, Energy
Supply
Arkansas Power & Light Company
P. O. Box 551
Little Rock, Arkansas 72203

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Dear Mr. Cavanaugh:

The Commission has issued the enclosed Amendment No. **38** to Facility Operating License No. NPF-6 for Arkansas Nuclear One, Unit 2. The amendment consists of a change to the Technical Specifications in response to your application dated October 15, 1982.

The amendment allows for the early removal of the first capsule of the ANO-2 Reactor Vessel Surveillance Program at 1.69 effective full power years (EFPY), rather than in accordance with the original schedule at 5 EFPY.

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

Sincerely,

Original signed by

Oliver D. T. Lynch, Jr.
Project Manager
Operating Reactors Branch #3
Division of Licensing

Enclosures:

1. Amendment No. **38** to NPF-6
2. Safety Evaluation
3. Notice of Issuance

cc w/enclosures:

See next page

OFFICE	ORB#3:DL	ORB#3:DL	ORB#3:DL	AD:OR:DL	OELD	
SURNAME	PMKreutzer	OLynch/pn	RAClark	GCLadinas	#J. McGarrison	
DATE	12/1/82	12/22/82	12/2/82	12/22/82	12/2/82	

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

DISTRIBUTION
Docket File
ORB#3 Rdg
PMKreutzer

Docket No. 50-368

Docketing and Service Section
Office of the Secretary of the Commission

SUBJECT: ARKANSAS POWER & LIGHT COMPANY, Arkansas Nuclear One, Unit 2

Two signed originals of the Federal Register Notice identified below are enclosed for your transmittal to the Office of the Federal Register for publication. Additional conformed copies (12) of the Notice are enclosed for your use.

- Notice of Receipt of Application for Construction Permit(s) and Operating License(s).
- Notice of Receipt of Partial Application for Construction Permit(s) and Facility License(s): Time for Submission of Views on Antitrust Matters.
- Notice of Availability of Applicant's Environmental Report.
- Notice of Proposed Issuance of Amendment to Facility Operating License.
- Notice of Receipt of Application for Facility License(s); Notice of Availability of Applicant's Environmental Report; and Notice of Consideration of Issuance of Facility License(s) and Notice of Opportunity for Hearing.
- Notice of Availability of NRC Draft/Final Environmental Statement.
- Notice of Limited Work Authorization.
- Notice of Availability of Safety Evaluation Report.
- Notice of Issuance of Construction Permit(s).
- Notice of Issuance of Facility Operating License(s) or Amendment(s).
- Other: Amendment No. 38

Referenced documents have been provided PDR.

Division of Licensing
Office of Nuclear Reactor Regulation

Enclosure:
As Stated

OFFICE →	ORB#3:DP					
SURNAME →	PMKreutzer/pr					
DATE →	1/7/83					

Arkansas Power & Light Company

cc:

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Regional Administrator
Nuclear Regulatory Commission, Region IV
Office of Executive Director for Operations
611 Ryan Plaza Drive, Suite 1000
Arlington, Texas 76011

Mr. J. Callan
U.S. NRC
P. O. Box 2090
Russellville, Arkansas 72801

U.S. Environmental Protection Agency
Region VI Office
ATTN: Regional Radiation
Representative
1201 Elm Street
Dallas, Texas 75270

S. L. Smith, Operations Officer
Arkansas Nuclear Planning &
Response Program
P. O. Box 1749
Russellville, Arkansas 72801



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. 38
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 October 15, 1982, 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.

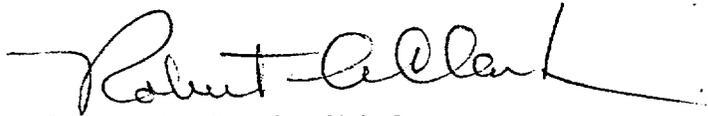
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-6 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 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 A. Clark, Chief
Operating Reactors Branch #3
Division of Licensing

Attachment:
Changes to the
Technical Specifications

Date of Issuance: January 6, 1983

ATTACHMENT TO LICENSE AMENDMENT NO. 38

FACILITY OPERATING LICENSE NO. NFP-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 area of change. Corresponding overleaf pages are provided to maintain document completeness.

Remove Pages

3/4 4-23
3/4 4-24

Insert Pages

3/4 4-23
3/4 4-24

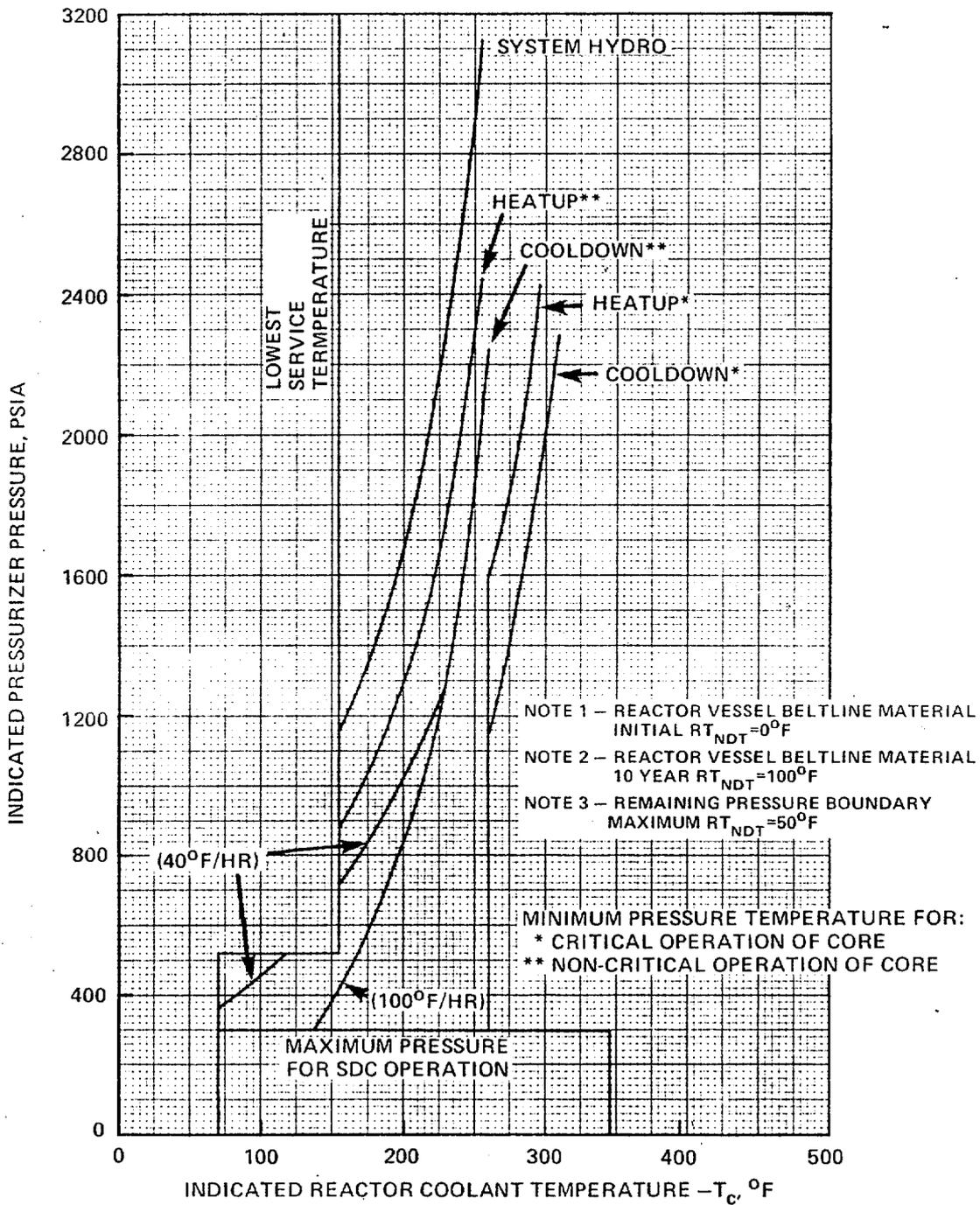


Figure 3.4-2

Reactor Coolant System Pressure Temperature Limitations for 0 to 10 Years of Full Power Operation

TABLE 4.4-5

REACTOR VESSEL MATERIAL IRRADIATION SURVEILLANCE SCHEDULE

<u>SPECIMEN</u>	<u>REMOVAL INTERVAL</u>
1.	1.69 EFPY
2.	19 EFPY
3.	30 EFPY
4.	Standby
5.	Standby
6.	Standby

ARKANSAS - UNIT 2

3/4 4-24

Amendment No. 38



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. NPF-6

ARKANSAS POWER & LIGHT COMPANY

ARKANSAS NUCLEAR ONE, UNIT 2

DOCKET NO. 50-368

1.0 Introduction

By letter dated October 15, 1982, Arkansas Power and Light Company proposed a Technical Specification change for Arkansas Nuclear One - Unit 2 (ANO-2) to revise the withdrawal schedule for the first capsule in the ANO-2 Reactor Vessel Surveillance Program. AP&L requested that the first capsule be removed at the end of the ANO-2 second fuel cycle, which corresponds to approximately 630 effective full power days. The current Technical Specification requirement for the withdrawal of the first capsule is at five effective full power years. Our evaluation of the proposed TS change follows.

2.0 Evaluation

Specification 4.4.9.1.2, Table 4.4-5, presently schedules the withdrawal of reactor vessel material irradiation surveillance specimens contained in the first capsule be withdrawn upon the completion of five effective full power years (EFPY). The licensee is presently participating in a program of the Electric Power Research Institute (EPRI) to analyze neutron radiation data immediately outside the ANO-2 reactor vessel. The primary purpose of this effort is to experimentally obtain the neutron flux and spectra immediately outside the reactor vessel and then use these data to calculate the reactor vessel fluence. The licensee indicates that this program is unique in that measured data outside the reactor vessel has not previously been available for calculations of fluence.

The licensee has also indicated that at the end of the second fuel cycle, these data would be available. These radiation data would be compared with the reactor vessel surveillance capsule radiation data to determine the change in radiation flux and spectra through the reactor vessel wall.

The change in radiation flux and spectra through the reactor vessel wall will be useful in evaluating the pressurized thermal shock generic issue. The staff informed AP&L that early withdrawal of the first capsule would be permitted provided there were additional stand-by capsules available and the reactor vessel beltline materials were not of the high copper,

nickel and phosphorous composition type which are susceptible to excessive radiation damage. The licensee indicated that there are three stand-by capsules which are available for testing. These capsules could be withdrawn, if there were any anomalies resulting from the fracture toughness testing of the first capsule. The licensee reported that the limiting ANO-2 reactor vessel material is an intermediate plate with 0.12 percentage copper, 0.010 percentage phosphorous, 0.63 percentage nickel and a predicted adjusted reference temperature at end-of-life of 171°F. These material properties indicate that the ANO-2 reactor vessel beltline materials will not have their fracture toughness properties reduced substantially from neutron irradiation.

Since early withdrawal of the first ANO-2 reactor vessel surveillance capsule will provide radiation data for determining the change in flux and spectra through the reactor vessel wall, and the ANO-2 reactor vessel beltline materials are not excessively susceptible to radiation damage, we consider the early withdrawal of the first ANO-2 reactor vessel surveillance capsule acceptable.

3.0 Summary

The staff has reviewed the proposed Technical Specification change relating to the early withdrawal of the first ANO-2 reactor vessel surveillance capsule and finds the proposed change 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 an accident previously evaluated, does not create the possibility of an accident of a type different from any evaluated previously, and does not involve a significant reduction in a margin of safety, the amendment does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the

proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Date: January 6, 1983

Principal Contributors:

B. Elliot

O. D. T. Lynch, Jr.

UNITED STATES NUCLEAR REGULATORY COMMISSIONDOCKET NO. 50-368ARKANSAS 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. NPF-6 issued to Arkansas Power & Light Company (the licensee), which revised the Technical Specifications for operation of Arkansas Nuclear One, Unit 2 (the facility), located in Pope County, Arkansas. The amendment is effective as of the date of issuance.

The amendment allows for the early removal of the first capsule of the ANO-2 Reactor Vessel Surveillance Program at 1.69 effective full power years (EFPY), rather than in accordance with the original schedule at 5 EFPY.

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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- 2 -

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 the issuance of this amendment.

For further details with respect to this action, see (1) the application for amendment dated October 15, 1982, (2) Amendment No. 38 to Facility Operating License No. NPF-6, and (3) the Commission's related Safety Evaluation. These items are available for public inspection at the Commission's Public Document Room at 1717 H Street, N.W., Washington, D.C. 20555 and at the Tomlinson Library, Arkansas Tech University, Russellville, Arkansas 72801. 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 Licensing.

Dated at Bethesda, Maryland, this 6th day of January, 1983.

FOR THE NUCLEAR REGULATORY COMMISSION



Operating Reactors Branch #3
Division of Licensing