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Docket No. 50-313

Mr. John M. Griffin, Vice President
Nuclear Operations
Arkansas Power & Light Company
Post Office Box 551
Little Rock, Arkansas 72203

Dear Mr. Griffin:

The Commission has issued the enclosed Amendment No. 81 to Facility Operating License No. DPR-51 for Arkansas Nuclear One, Unit No. 1 (ANO-1). The amendment consists of changes to the Technical Specifications (TSs) in response to your application dated August 8, 1983.

The amendment revises the TSs related to the schedules and locations of insertions of ANO-1 reactor vessel materials properties capsules into the Davis-Besse 1 reactor.

A copy of the Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's Monthly Notice.

Sincerely,

"ORIGINAL SIGNED BY:"
Guy S. Vissing, Project Manager
Operating Reactors Branch #4
Division of Licensing

Enclosures:
1. Amendment No. 81
2. Safety Evaluation

cc w/enclosure:
See next page

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cp

cc w/enclosure(s):

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611 Ryan Plaza Drive, Suite 1000
Arlington, Texas 76011

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. 81
License No. DPR-51

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Arkansas Power and Light Company (the licensee) dated August 8, 1983, 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. DPR-51 is hereby amended to read as follows:

Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 81 , 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

John F. Stolz, Chief
Operating Reactors Branch #4
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: October 7, 1983

ATTACHMENT TO LICENSE AMENDMENT NO. 81

FACILITY OPERATING LICENSE NO. DPR-51

DOCKET NO. 50-313

Replace the following page of the Appendix "A" Technical Specifications with the enclosed page. The revised page is identified by Amendment number and contains vertical lines indicating the area of change.

Remove	Insert
77b	77b

Table 4.2-1

ANO-1 CAPSULE ASSEMBLY WITHDRAWAL SCHEDULE AT DAVIS-BESSE 1

CAPSULE	INSERTION/WITHDRAWAL
ANI-E	Has been withdrawn for testing
ANI-B	Withdraw following 1st cycle at Davis-Besse 1
ANI-A	Withdraw following 3rd cycle at Davis-Besse 1
ANI-C	Withdraw following 7th cycle at Davis-Besse 1
ANI-D	Insert in location YZ (upper) prior to 4th cycle at Davis-Besse 1; withdraw following 12th cycle
ANI-F	Insert in location YX (upper) prior to 5th cycle at Davis-Besse; withdraw following 11th cycle

Bases

The surveillance program has been developed to comply with the applicable edition of Section XI and addenda of the ASME Boiler and Pressure Vessel Code, Inservice Inspection of Nuclear Reactor Coolant Systems, as required by 10 CFR 50.55a, to the extent practicable within limitations of design, geometry and materials of construction.

The number of reactor vessel specimens and the frequencies for removing and testing these specimens are provided to assure compliance with the requirements of Appendix H to 10 CFR Part 50.

For the purpose of Technical Specification 4.2.8, the definition of Regulatory Guide 1.16, Revision 4 (August 1975) applies for the term "commercial operation". Cumulative reactor utilization factor is defined as: [(cumulative thermal megawatt hours since attainment of commercial operation at 100% power) x 100] ÷ [(licensed thermal power) x (cumulative hours since attainment of commercial operation at 100% power)].

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 81 TO

FACILITY OPERATING LICENSE NO. DPR-51

ARKANSAS POWER AND LIGHT COMPANY

ARKANSAS NUCLEAR ONE, UNIT NO. 1

DOCKET NO. 50-313

1. Introduction

By letter dated August 8, 1983, Arkansas Power and Light Company (AP&L or the licensee) requested amendment to the Appendix A Technical Specifications (TSs) of the Arkansas Nuclear One, Unit No. 1 (ANO-1), Facility Operating License No. DPR-51. The proposed amendment would change the TSs to require a delay in the installation in the Davis-Besse 1 (DB-1) reactor of the ANO-1 reactor vessel materials properties capsule ANI-F from prior to the fourth DB-1 cycle to the fifth DB-1 cycle. Additionally, capsule ANI-D, which is scheduled for insertion in the DB-1 reactor prior to the fourth DB-1 cycle, would be inserted in DB-1 location YZ rather than WZ, and the capsule ANI-F, which would be scheduled for insertion in the DB-1 reactor prior to fifth DB-1 cycle, would be inserted in location YX instead of YZ.

2. Discussion

This change would allow the Babcock and Wilcox (B&W) Owners Group research capsule DB-LG 1, which is in location WZ, to remain in the DB-1 reactor and accumulate neutron fluence (7.8×10^{18} n/cm^2, E>1 MeV) equivalent to the fluence at the 1/4 T location of a typical B&W 177FA plant at the end of life. However, only one space would be available for the ANO-1 capsules. Capsule ANI-D would be able to be inserted in location YZ prior to DB-1 fourth cycle and capsule ANI-F would not be able to be inserted until prior to DB-1 fifth cycle when space would be made available due to the removal of other capsules.

After insertion, the ANI-F capsule would be irradiated to a level approximately equivalent to the expected peak fluence at the end of life at the inside surface of the ANO-1 reactor vessel and then held as a standby capsule as specified by 10 CFR 50, Appendix H, and ASTM E-185.

Capsule ANI-F contains only base and heat affected zone material but no weld metal. The limiting material in the ANO-1 reactor vessel beltline is a weld metal produced using Linde 80 flux. Since capsule ANI-F does not contain the limiting ANO-1 reactor vessel beltline material, the licensee indicates that delay in insertion and testing of the materials in the capsule is not expected to affect the operating limits of the reactor vessel.

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The licensee indicates that the change in location of the capsules within the DB-1 reactor will facilitate efficient handling and will have no effect on the ANO-1 reactor vessel surveillance program (RVSP) since the new locations are in the same relative positions to the core as those in the current TSs.

3. Evaluation

The data from the ANO-1 RVSP provides the basis for the operating limits of the ANO-1 reactor which are related to the safety settings. However, because capsule ANI-F is a spare capsule and does not contain samples of weld material, which is controlling, the data resulting from ANI-F capsule samples after irradiation in the DB-1 would not change the basis for the operating limits of ANO-1. This information is obtained from other capsules unaffected by the proposed amendment. Also, since the proposed change in location of the ANI-D capsule would be in the same relative position of the core, there would be no effect on the ANO-1 RVSP. Therefore, the proposed amendment would not provide a relaxation of the bases for limiting safety settings. Furthermore, the amendment has no effect on the present operation of the facility, and thus would not result in a significant increase in the probability or consequences of an accident previously considered, or a significant reduction in a margin of safety, nor create the possibility of an accident new and different from an accident previously considered.

4. 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.

5. 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 this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Dated: October 7, 1983

The following NRC personnel have contributed to this Safety Evaluation:
Barry Elliot and Guy S. Vissing