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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO REQUESTS FOR RELIEF FROM INSERVICE INSPECTION REQUIREMENTS

AND

SUPPORTING AMENDMENT NO. 77 TO

FACILITY OPERATING LICENSE NO. DPR-51

ARKANSAS POWER AND LIGHT COMPANY

ARKANSAS NUCLEAR ONE, UNIT NO. 1

DOCKET NO. 50-313

Introduction

By letter dated October 19, 1977, as supplemented by letter dated December 15, 1978, Arkansas Power & Light Company (the licensee or AP&L) requested amendment to the Technical Specifications (TSs) appended to Facility Operating License No. DPR-51 for Arkansas Nuclear One, Unit No. 1 (ANO-1).

The amendment would revise the language for the TSs relating to inservice inspection requirements of safety class components to conform with the Codes and Standards Rule, 10 CFR 50.55a. This rule requires in part that inservice inspection of ASME Code Class 1, 2 and 3 components be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda except where specific written relief is granted by the Nuclear Regulatory Commission (the Commission).

The licensee also submitted a proposed inservice inspection program description and requested relief from certain Code requirements, determined to be impractical to perform on ANO-1 during the inspection interval.

Discussion

The proposed TS 4.2.2 conforms to the Codes and Standards Rule 10 CFR 50.55a(g). The proposed TS 4.2.2 for ANO-1 states that inservice examination of ASME Code Class 1, 2, and 3 components shall be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda as required by 10 CFR 50.55a(g) except where specific written relief has been granted by the Commission. Certain requirements of later editions and addenda of Section XI are impractical to perform on older plants because of the plants' design, component geometry, and materials of construction. Thus, 10 CFR 50.55a(g)(6)(i) authorizes the Commission to grant relief from those requirements upon making the necessary findings.

By letters dated October 19, 1977 and December 15, 1978, AP&L submitted its inservice inspection program revisions, or additional information related to requests for relief from certain Code requirements, determined to be impractical to perform on ANO-1 during the inspection interval. The program is based on the 1974 Edition through Summer 1975 Addenda of Section XI

of the ASME Code and covers the remainder of the 120-month inspection interval which ends December 19, 1984.

Evaluation

On the basis that the proposed TS 4.2.2 does conform to 10 CFR 50.55a(g), we find it acceptable.

Requests for relief from the requirements of Section XI which have been determined to be impractical to perform have been reviewed by our contractor, Science Applications, Inc. The contractor's evaluations of the licensee's requests for relief and his recommendations are presented in the attached Technical Evaluation Report (TER).

We have reviewed the TER and agree with the evaluations and recommendations. A summary of our determinations is presented in the following tables:

TABLE 1

CLASS 1 COMPONENTS

IWB-2600 ITEM NO.	IWB-2500 EXAM. CAT.	SYSTEM OR COMPONENT	AREA TO BE EXAMINED	REQUIRED METHOD	LICENSEE PROPOSED ALTERNATIVE EXAMINATION	RELIEF REQUEST STATUS
B1.4	B-D	Reactor Vessel	Nozzle Inside Radiused Sections	Volumetric: 25% During 1st 40-month period, 50% by end of 2nd 40-month Period, 100% by End of Interval	Volumetric Near end of of interval	Granted
B1.6	B-F	Piping, Core Flood Nozzles	Nozzle-To-Safe End Welds	Volumetric and Surface at Scheduled Intervals	Volumetric and Surface at end of Interval	Note 1
B1.11	B-G-2	Control Rod Drive Mechanism	Pressure - Retaining Bolting	Visual	Visual 10% Peripheral CRDM's	Granted
B4.5	B-J	High Pressure Injection and Core Flood	Circumferential Butt Welds: A1-8A, B1-10A, B2-10A, W-1 & Y-1	Volumetric	None	Note 1

Note 1: Components may be subjected to an augmented examination as a result of generic thermal sleeve failures. If not, the proposed alternative examination may be performed.

TABLE 1

CLASS 1 COMPONENTS
(Continued)

IWB-2600 ITEM NO.	IWB-2500 EXAM. CAT.	SYSTEM OR COMPONENT	AREA TO BE EXAMINED	REQUIRED METHOD	LICENSEE PROPOSED ALTERNATIVE EXAMINATION	RELIEF REQUEST STATUS
B4.9	B-K-1	Piping	Integrally - Welded Support Fillet Welds	Volumetric	Surface	Granted

TABLE 2

CLASS 2 COMPONENTS

IWC-2600 ITEM NO.	IWC-2520 EXAM. CAT.	SYSTEM OR COMPONENT	AREA TO BE EXAMINED	REQUIRED METHOD	LICENSEE PROPOSED ALTERNATIVE EXAMINATION	RELIEF REQUEST STATUS

[NO RELIEF REQUESTS]

TABLE 3

CLASS 3 COMPONENTS

IWC-2600 ITEM NO.	IWC-2520 EXAM. CAT.	SYSTEM OR COMPONENT	AREA TO BE EXAMINED	REQUIRED METHOD	LICENSEE PROPOSED ALTERNATIVE EXAMINATION	RELIEF REQUEST STATUS

[NO RELIEF REQUESTS]

TABLE 4

PRESSURE TESTS

SYSTEM OR COMPONENT	IWC-5000 & IWD-5000 TEST PRESSURE REQUIREMENT	LICENSEE PROPOSED ALTERNATE TEST PRESSURE	RELIEF REQUEST STATUS

[NO RELIEF REQUESTS]

TABLE 5

ULTRASONIC EXAMINATION TECHNIQUE

SYSTEM OR COMPONENT	REQUIREMENT	LICENSEE PROPOSED ALTERNATIVE EXAMINATION METHOD	RELIEF REQUEST STATUS

No Relief Requests

TABLE 6

GENERAL RELIEF REQUESTS

ALL CLASSES/COMPONENTS

SYSTEM OR COMPONENT	REQUIREMENT	LICENSEE ALTERNATE	RELIEF REQUEST STATUS

[NO RELIEF REQUESTS]

Based on the review summarized, we conclude that relief granted from the examination requirements and alternate methods imposed through this document give reasonable assurance of the piping and component pressure boundary and support structural integrity, that granting relief where the Code requirements are impractical is authorized by law and will not endanger life or property, or the common defense and security, and is otherwise in the public interest considering the burden that could result if they were imposed on the facility.

Environmental Consideration

We have determined that the amendment and granting relief from specific ASME Section XI Code requirements do 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 this is 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 this action.

Conclusion

We have concluded, based on the considerations discussed above, that: (1) because this action 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, this action 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 action will not be inimical to the common defense and security or to the health and safety of the public.

Dated: April 18, 1983

The following NRC personnel have contributed to this Safety Evaluation: Guy S. Vissing, George Johnson.