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March 19, 1993

1CAN039303

U. S. Nuclear Regulatory Commission  
Document Control Desk  
Mail Station P1-137  
Washington, DC 20555

Subject: Arkansas Nuclear One - Unit 1  
Docket No. 50-313  
License No. DPR-51  
Technical Specification Change Request Incorporating Revision to  
ASME Boiler and Pressure Vessel Code

Gentlemen:

Attached for your review and approval is a proposed Arkansas Nuclear One - Unit 1 (ANO-1) Technical Specification (TS) change. The attached change updates the Reactor Coolant System (RCS) Leakage Test pressure in TS 4.3.2 to agree with the requirements of the 1980 edition of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI (through winter 1981 addenda).

The proposed change has been evaluated in accordance with 10CFR50.91(a)(1) using criteria in 10CFR50.92(c) and it has been determined that this change involves no significant hazards considerations. The bases for these determinations are included in the enclosed submittal.

Although the circumstances of this request are neither emergency or exigent, prompt review and approval is requested prior to the conclusion of the next ANO-1 refueling outage (1R11) which is currently scheduled to begin in early September of 1993. We request that the license amendment be effective upon issuance. If you have questions concerning this request, please do not hesitate to contact my staff.

Very truly yours,

JWY/dbm

Attachments

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9303290210 930319  
PDR ADOCK 05000313  
P PDR

A0471

U.S. NRC  
March 19, 1993  
1CAN039303

cc: Mr. James L. Milhoan  
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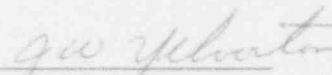
Ms. Greta Dicus  
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Division of Radiation Control and  
Emergency Management  
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Little Rock, AR 72205

STATE OF ARKANSAS     )  
                                  )  
COUNTY OF LOGAN     )

SS

Affidavit

I, J. W. Yelverton, being duly sworn, subscribe to and say that I am Vice President, Operations ANO for Entergy Operations, that I have full authority to execute this affidavit: that I have read the document numbered 1CAN039303 and know the contents thereof; and that to the best of my knowledge, information and belief the statements in it are true.

  
J. W. Yelverton

SUBSCRIBED AND SWORN TO before me, a Notary Public in and for the County and State above named, this 19th day of March, 1993.

  
Notary Public

My Commission Expires:

May 11, 2000

ATTACHMENT

PROPOSED TECHNICAL SPECIFICATION

AND

RESPECTIVE SAFETY ANALYSES

IN THE MATTER OF AMENDING

LICENSE NO. DPR-51

ENTERGY OPERATIONS, INC.

ARKANSAS NUCLEAR ONE, UNIT ONE

DOCKET NO. 50-313

## DESCRIPTION OF PROPOSED CHANGE

The proposed change revises the minimum Reactor Coolant System leakage test pressure requirement in Technical Specification 4.3.2 in accordance with the requirements of the ASME Boiler and Pressure Vessel Code. The existing specification requires a minimum RCS leakage test pressure of 2285 psig. IWA-5000 of the ASME Boiler and Pressure Vessel Code, Section XI requires leakage tests be performed at the nominal operating pressure (2155 psig). The bases is revised accordingly to reflect the incorporation of this code requirement.

## BACKGROUND

ANO-1 Technical Specification 4.3 ensures RCS integrity prior to return to criticality following normal openings. This specification is based on the 1971 edition of the ASME Boiler and Pressure Vessel Code (through winter 1971 addenda) which did not address RCS leakage tests. In the absence of specific guidance, ANO conservatively specified a leakage test pressure of 1.06 times the nominal operating pressure (2285 psig). This value was based on proposed revisions to the ASME Boiler and Pressure Vessel Code that were later issued in the Winter 1972 Addenda.

For the second 10-year ISI interval, ANO committed to perform RCS Inservice Inspections and Tests in accordance with the 1980 edition of the ASME Boiler and Pressure Vessel Code (through winter 1981 addenda). IWA-5000 of that edition requires the RCS to be leak tested at nominal operating pressure (2155 psig) following normal opening.

## DISCUSSION OF CHANGE

According to Section XI of the ASME Boiler and Pressure Vessel Code, RCS leakage tests, performed at nominal operating pressure, are sufficient to ensure pressure boundary integrity following normal opening. The current ANO-1 specification requires leakage tests be performed at a pressure greater than the nominal operating pressure and therefore exceeds code requirements. This test requires operators to manually control RCS pressure at 2285 psig for up to 4 hours. Since the Reactor Protection System (RPS) RCS high pressure setpoint is 2355 psig, performance of the leakage test at the nominal operating pressure of 2155 psig will decrease the probability of RPS actuation during the test.

## DETERMINATION OF SIGNIFICANT HAZARDS

An evaluation of the proposed change has been performed in accordance with 10CFR50.91(a)(1) regarding no significant hazards considerations using the standards in 10CFR50.92(c). A discussion of those standards in 10CFR50.92(c) is discussed below.

- Criterion 1 Does not involve a significant increase in the probability or consequence of an accident previously evaluated.

The accident mitigation features of the plant are not effected by the proposed amendment. No modification has been made to the RCS pressure boundary. Although the leakage test pressure is reduced, the proposed specification will demonstrate the integrity of the RCS pressure boundary at nominal operating pressure as required by ASME Boiler and Pressure Vessel Code. Therefore, this change does not involve a significant increase in the probability or consequence of an accident previously evaluated.

- Criterion 2 Does not create the possibility of a new or different kind of accident from any previously evaluated.

The proposed change does not involve any design changes or plant modifications. No new possibility for an accident is introduced by modifying the specifications for the RCS leakage test surveillance. This change reduces the minimum pressure for system leakage tests to current ASME Boiler and Pressure Vessel Code requirements. Therefore, this change does not create the possibility of a new or different kind of accident from any previously analyzed.

- Criterion 3 Does not involve a significant reduction in a margin of safety.

The objective of Technical Specification 4.3 is to ensure RCS integrity prior to return to criticality following normal opening. This change reduces the minimum pressure for system leakage tests to current ASME Boiler and Pressure Vessel Code requirements. Although the required test pressure is reduced, the surveillance will continue to demonstrate the integrity of the RCS pressure boundary following normal opening as required by the ASME Boiler and Pressure Vessel Code. Therefore, this change does not involve a significant reduction in a margin of safety.

Therefore, based on the reasoning presented above and the previous discussion of the amendment request, Entergy Operations has determined that the requested changes do not involve a significant hazards consideration.