



**Entergy
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January 29, 1991

ICAN019101

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
Reactor Building Cooling System
Technical Specification Change Request

Gentlemen:

In our letter dated December 14, 1990 (ICAN129011), Entergy Operations committed to provide a change to Technical Specification 3.3, Emergency Core Cooling, Reactor Building Cooling and Reactor Building Spray Systems and 4.5.2, Reactor Building Cooling System Surveillance Requirements and the Bases for these Specifications. Attached are changes revising these Specifications and their Bases. This change clarifies the Specifications by defining a reactor building cooling train in terms of equivalent cooling capacity to meet the design requirements as specified in the Safety Analysis Report.

In accordance with 10CFR50.91(a)(1), and using the criteria in 10CFR50.92(c), Entergy Operations has determined that the change involves no significant hazards consideration. The basis for these determinations are included in the enclosed submittal. Although the circumstances of this proposed amendment is not exigent or emergency, your prompt review and approval is requested.

We request that the effective date for this change be 30 days after NRC issuance of the amendment to allow for distribution of this change.

Very truly yours,

NSC/CWT
Attachments

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cc: Mr. Robert Martin
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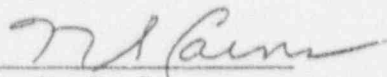
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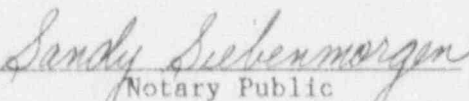
Affidavit

I, N. S. Carns, 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 1CAN019101 and know the contents thereof; and that to the best of my knowledge, information and belief the statements in it are true.



N. S. Carns

SUBSCRIBED AND SWORN TO before me, a Notary Public in and for the County and State above named, this 29th day of January 1991.



Notary Public

My Commission Expires:

May 11, 2000

ENCLOSURE

PROPOSED TECHNICAL SPECIFICATION

AND

RESPECTIVE SAFETY ANALYSES

IN THE MATTER OF AMENDING

LICENSE NO. DPR-51

ENTERGY OPERATIONS, INCORPORATION

ARKANSAS NUCLEAR ONE, UNIT ONE

DOCKET NO. 50-313

PROPOSED CHANGE

Energy Operations proposes to change the ANO-1 Technical Specifications 3.3 and 4.5.2 and the Bases for these Specifications to clarify the requirements for the reactor building emergency cooling system. Specifically this change replaces the nomenclature of "reactor building cooling fan and its associated cooling unit" with "train of reactor building emergency cooling" in sections 3.3.1(B), and 3.3.4(A). Also this changes the nomenclature from "reactor building cooling" to "reactor building emergency cooling". The power supply requirement of 3.3.4 (A) is being stated as a separate sentence for clarity. The term "unit" or "group" is being replaced with "train" in sections 3.3.7(C), (D) and (E). Associated with this clarification section 3.3.7(F) can now be deleted. In section 4.5.2.1.2 the term "group" is being replaced with "train." In section 4.5.2.1.2(b), (1) and (2) are changed from "unit" to "fan." In the Bases the term train is defined as consisting of two coolers and their associated fans which have sufficient capacity to meet post accident heat removal requirements. The design requirements for accident analysis is being corrected in the Bases. Additionally the FSAR, Section 6.3 is being added to the references. A clarification is being added to the Bases describing fan testing.

BACKGROUND

During the R9 Refueling outage several leaks were discovered in the Loop 2 ("C" & "D") reactor building emergency coolers. There are four essentially identical coolers, two per service water loop. Each cooler has eight service water coils (four 12 row and four 8 row coils). Prior to the outage, a leak was discovered in "D" cooler. The leaking coil was temporarily blanked off. During the outage, the service water system was chemically cleaned to improve thermal performance. During the cleaning, a leak was detected in the "C" cooler. All the reactor building emergency coolers were hydrostatically tested following the cleaning. During this test, leaks were identified in the "C" and "D" coolers. The 12 row coil sets in "D" cooler and the 8 row coil sets in "C" cooler were replaced with new coils. To reduce the potential for leakage the remaining old coils in "C" and "D" were blanked off. "A" and "B" coolers were hydrostatically tested and had no leaks.

Our analysis in support of these activities has shown that with both fans and a complete set of coils, split between the two coolers, the design heat removal requirement is exceeded. Therefore, to continue complying with the TS, a cooling group for Loop 2 was considered to be both the "C" and "D" coolers and their associated fans. If either the "C" or "D" coolers becomes inoperable due to either a single fan failure or further degradation in the coils, such that the heat removal capabilities as specified in the FSAR are not met, Loop 2 will be declared inoperable and the actions required by Specification 3.3.6 followed. As a result of a review of our current Technical Specifications in light of these activities, it was determined that the current Technical Specifications require clarification.

DISCUSSION

The purpose of this change is to define the requirements for reactor building emergency cooling in terms of heat removal capacity to meet the requirements of the Safety Analysis Report rather than specific component operation. The reactor building emergency coolers in conjunction with the reactor building spray and the decay heat removal coolers serve to reduce the post accident reactor building temperature and pressure. The limiting safety analysis assumes the heat removal capacity of one reactor building spray train (with one decay heat removal cooler) and one reactor building emergency cooler. The two loop coolers (there are two reactor building emergency coolers per service water loop) are provided with service water in parallel from a common service water header. There is no isolation valve to divert service water to a specific cooler. Therefore, both coolers in each loop operate as a group. The flow through the coolers is combined to meet the TS Surveillance requirement of ≥ 1200 gpm. In the past, if either of the "units" became inoperable, the seven day action statement was entered and either the problem was corrected or the service water flow was diverted to the operable fan-cooler combination and flow to the operable cooler was verified to be ≥ 1200 gpm.

Energy Operations proposes to clarify the wording in the Specification as delineated above and provide more information as to the system operability requirements in the Bases to the Specification. With this clarification, Item 3.3.7 (F) will no longer be needed as an Exception.

DETERMINATION OF SIGNIFICANT HAZARDS

An evaluation of the proposed change has been performed in accordance with 10CFR50.91(a)(1) regarding no significant hazards consideration using the standards in 10CFR50.92(c). A discussion of those standards as they relate to this amendment request follows:

Criterion 1 - Does Not Involve a Significant Increase in the Probability or Consequences of an Accident Previously Evaluated.

The proposed change restricts interpretation of the specification while ensuring the design basis requirements are met. The configuration required by the proposed specification are permitted by the existing specification. The change in nomenclature from reactor building cooling to reactor building emergency cooling is administrative in nature, therefore the change does not involve an increase in the probability or consequences of an accident previously evaluated.

Criterion 2 - Does Not Create the Possibility of a New or Different Kind of Accident from any Previously Evaluated.

No new configuration is allowed by this change to the nomenclature in the Specification. The change in nomenclature from reactor building cooling to reactor building emergency cooling is administrative in nature. This change serves to clarify the specification and provide further information in the Bases. The configuration required by the proposed specification is permitted by the existing specification. Any deviation from that of normal configuration will require an evaluation per 10CFR50.59 and therefore does not create the possibility of a new or different kind of accident from any previously evaluated.

Criterion 3 - Does Not Involve a Significant Reduction in the Margin of Safety.

The purpose of this change is to define the requirements for the reactor building emergency cooling in terms of heat removal capacity rather than in terms of specific component operation. The required configurations are unaffected and the design basis is unchanged. The change in nomenclature from reactor building cooling to reactor building emergency cooling is administrative in nature. Providing clarification and references to the system design basis does not reduce the margin of safety.

The Commission has provided guidance concerning the application of the standards for determining whether a significant hazards consideration exists. The proposed amendment most closely matches example (i):

"A purely administrative change to technical specifications: for example, a change to achieve consistency throughout the technical specifications, correction of an error, or a change in nomenclature."

Based on the above evaluation it is concluded that the proposed Technical Specification change does not constitute a significant hazards concern.