



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATING TO TECHNICAL SPECIFICATION BASES CHANGES
FACILITY OPERATING LICENSE NO. DPR-51
ENERGY OPERATIONS, INCORPORATED
ARKANSAS NUCLEAR ONE, UNIT 1
DOCKET NO. 50-313

1.0 INTRODUCTION

By letter dated February 10, 1995, Entergy Operations, Inc. (the licensee), submitted a request for changes to the Arkansas Nuclear One, Unit 1 (ANO-1), Technical Specifications (TSs) Bases. The proposed changes would add information to clarify the referenced TS and also remove cycle specific information.

2.0 EVALUATION

The proposed change to the Bases associated with TS 2.1 clarifies that the departure from nucleate boiling ratio (DNBR) of 1.30 is associated with the BAW-2 (CHF) correlation and adds information that a DNBR of 1.18 will be maintained for the BWC correlation. This change is consistent with the fuel assembly-dependent CHF correlation that is used in the reload report and is acceptable.

The proposed change to the TS 3.2 Bases removes reference to a specific volume of 44,549 gallons and a boric acid concentration of 2270 ppm boron in the borated water storage tank (BWST). This cycle specific information is replaced by a reference to an operable BWST. TS 3.3.1.G specifies the volume and boric acid concentration requirements for an operable BWST. The requirements stated in TS 3.3.1.G bound the minimum volume and concentration required to meet the 1% subcritical margin in the cold condition at the worst time in core life with a maximum worth stuck control rod and after xenon decay. Therefore, the proposed change is acceptable.

Reference 3 to TS 3.2 Bases would also be revised to refer to the ANO-1 Safety Analysis Report (SAR) Section 3.1 instead of 3.3. This is acceptable since Section 3.1 describes the reactivity control limits.

The proposed change to TS 3.3.1 Bases removes reference to a cycle specific value of 1609 ppm boron in the core required to maintain at least a 1% subcritical margin at 70°F without any control rods in the core. The referenced concentration was specific to only Cycle 1 operation and has been

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ENCLOSURE 1

increased in subsequent reload cores. The minimum stated BWST concentration of 2270 ppm boron is retained and assures that the core can be maintained at least 1% subcritical at 70°F with no control rods. Therefore, the proposed change is acceptable.

The proposed change to TS 3.5.2.6 Bases adds information to clarify that the reactor power-imbalance envelope may at times be set, not only by the loss-of-coolant-accident analyses, but also by the loss of forced reactor coolant flow analysis. This is consistent with the development of this envelope, as described in the NRC-approved report BAW-10179P-a, and is acceptable.

The proposed change to TS 4.7 Bases clarifies that the time for control rod insertion from full out to 3/4 inserted is used to determine the measured drop time. This is acceptable since the most accurate position indication is obtained from the zone reference switch at the 3/4 inserted position and this bounds the SAR Chapter 14 analysis of insertion from full out to 2/3 insertion.

3.0 CONCLUSION

The staff has reviewed the proposed TS Bases changes to ANO-1 and finds them acceptable.

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Date: September 15, 1995,