



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 178 TO

FACILITY OPERATING LICENSE NO. DPR-51

ENTERGY OPERATIONS, INC.

ARKANSAS NUCLEAR ONE, UNIT NO. 1

DOCKET NO. 50-313

1.0 INTRODUCTION

By letter dated August 30, 1994, as supplemented by letter dated March 9, 1995, Entergy Operations, Inc. (the licensee) proposed changes to the Technical Specifications (TSs) for the Arkansas Nuclear One - Unit 1 (ANO-1). The proposed changes relocate cycle-specific core operating limits from the TSs to the core operating limits report (COLR). The changes were submitted in accordance with the guidance provided in Generic Letter (GL) 88-16. The use of the COLR for ANO-1 was previously approved by the NRC in response to an amendment request dated November 7, 1991. This amendment was issued on April 14, 1992 and transferred several cycle-specific limits from the TSs to the COLR. The current changes are essentially a continuation of the process that began in 1991 and 1992.

In addition to relocating cycle-specific limits, the proposed TS change includes revised conditions when safety limits are applicable and adds a limit of 24 hours for continued operation with only one reactor coolant pump operating in each loop while the reactor is critical. The March 9, 1995, letter provided clarifying information that did not change the initial proposed no significant hazards consideration determination.

2.0 EVALUATION

2.1 Core Operating Limits Report

The licensee's proposed core operating limit changes are in accordance with the guidance provided by GL 88-16 and are addressed below.

(1) In addition to the cycle-specific core operating limits that were relocated to the COLR by license amendment dated April 14, 1992, the following specifications are being relocated to the COLR as part of this proposed amendment.

- (a) Specification 2.1, axial power protective limits as defined by Figure 2.1-2
- (b) Specification 2.3.1, 2.5.2.4.2 and Table 2.3-1, protection system setpoints for power imbalance as defined by Figure 2.3-2 and Table 2.3-1
- (c) Specification 3.1.8.3, 3.5.2.1, 3.5.2.2.2, and 3.5.2.2.3, minimum shutdown margin

The bases of affected specifications have been modified by the licensee to include appropriate reference to the COLR.

- (2) The proposed amendment also adds a list of all parameters that were relocated from the TSs to the COLR. This list was added to the administrative controls section of the TSs, Specification 6.12.3.

The NRC staff concludes that the above changes were proposed in accordance with guidance contained in GL 88-16. The changes eliminate cycle-specific limits from the TSs and thus eliminate the need for TS amendments after every refueling. Reactor operations after each refueling continue to be restricted by core operating limits. However, these operating limits are now contained in the COLR. The COLR values of cycle-specific parameters are derived by the licensee using NRC-approved methodologies. The staff finds that this change does not reduce the level of safety. Accordingly, the staff finds that the proposed changes are acceptable.

## 2.2 Reactor Core Safety Limits

The applicability of TS 2.1 is revised from current "during power operation of the plant" to proposed "when the reactor is critical." Since the proposed applicability results in a more restrictive requirement than currently exists, this revision is acceptable. TS 2.1 is also revised to add safety limit requirements for the maximum local fuel pin centerline temperature and the departure from nucleate boiling ratio (DNBR). These revisions change the specifications in a conservative direction and are therefore acceptable.

## 2.3 Reactor Coolant Pumps

TS 3.1.1.1.A has been revised to restrict operation to 24 hours when one reactor coolant pump is operating in each loop and the reactor is critical. This revision is acceptable since it follows recommendations contained in the topical report BAW-10103, Revision 3, and is a more restrictive TS requirement.

### 3.0 CONCLUSION OF TECHNICAL ISSUES

The staff has reviewed the request by Entergy Operations, Inc. to revise the ANO-1 TSs. The proposed revisions relocate cycle specific core parameters from the TSs to the COLR and add more restrictive requirements for operations. The staff concludes that these changes are not adverse to safety and are therefore acceptable.

### 3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Arkansas State official was notified of the proposed issuance of the amendment. The State official had no comments.

### 4.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding (60 FR 3672). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

### 5.0 CONCLUSION

The Commission has 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, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

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Date: March 16, 1995