



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 115 TO FACILITY OPERATING LICENSE NPF-35  
AND AMENDMENT NO. 109 TO FACILITY OPERATING LICENSE NPF-52  
DUKE POWER COMPANY, ET AL.  
CATAWBA NUCLEAR STATION, UNITS 1 AND 2  
DOCKET NOS. 50-413 AND 50-414

1.0 INTRODUCTION

By letter dated January 13, 1993, as supplemented January 28 and April 26, 1993, Duke Power Company, et al. (the licensee), submitted a request for changes to the Catawba Nuclear Station, Units 1 and 2, Technical Specifications (TS). The requested changes would revise TS 2.2.1 to move the overtemperature delta-T and overpressure delta-T  $\tau$  and K constant numerical values to the Core Operating Limits Report (COLR), revise TS 3/4.1.2.5, 3/4.1.2.6, 3/4.5.1, and 3/4.5.4 to move applicable volume and boron concentration limits to the COLR, revise TS 3/4.3.3.11 and 3/4.9.2 to move reactor water makeup pump flowrate limits to the COLR, and revise TS 6.9.1.9 to reflect the appropriate methodology references.

2.0 EVALUATION

The proposed changes to the current TS are in accordance with the guidance provided by Generic Letter 88-16 and are addressed below.

- (1) The following specifications were revised to replace the values of cycle-specific parameter limits with reference to the COLR that provides these limits.

- (a) Specification 2.2.1

Numerical values of the constants in the overtemperature and overpower delta-T trip equations for this specification are proposed to be moved to the COLR. Specifically, these constants are the  $\tau$  and K constants ( $f_1(\Delta I)$  and  $f_2(\Delta I)$ ), and the breakpoints and slopes for  $f(\Delta I)$ . The equations for the trips will remain in TS section 2.2. Although these parameters are incorporated in TS Section 2.0, they are not safety limits, but are used in the trip equations to protect against violating safety limits. There have been recent instances where one or more of these parameters have been changed in TS revisions and, therefore, they may be considered cycle-dependent. The staff has previously approved the relocation of other cycle-dependent trip parameters and setpoints to the COLR.

Thus, the relocation of these parameters to the COLR is consistent with the provisions of Generic Letter 88-16.

(b) Specification 3/4.1.2.5

The shutdown borated water source volume and boron concentration limits for the Boric Acid Storage System and Refueling Water Storage Tank for this specification is specified in the Catawba COLR.

(c) Specification 3/4.1.2.6

The operating borated water source volume and boron concentration limits for the Boric Acid Storage System and Refueling Water Storage Tank for this specification is specified in the Catawba COLR.

(d) Specification 3/4.3.3.11

The reactor water makeup pump flowrate limits for the boron dilution mitigation system for this specification are specified in the Catawba COLR.

(e) Specification 3/4.5.1

The boron concentration limits for cold leg accumulator are specified in the Catawba COLR.

(f) Specification 3/4.5.4

The boron concentration limits for the RWST are specified in the Catawba COLR.

(g) Specification 3/4.9.2

The reactor water makeup pump flowrate limit is specified in the Catawba COLR.

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

- (2) Specification 6.9.1.8 for Catawba Units 1 and 2 is revised to include currently proposed TS changes under the reporting requirements of the Administrative Control section of the TS. This specification requires that the COLR be submitted, upon issuance, to the NRC Document Control Desk with copies to the Regional Administrator and Resident Inspector. The report provides the values of cycle-specific parameter limits that are applicable for the current fuel cycle. This specification also requires that the NRC-approved methodologies be used in establishing the values of these limits for the relevant specifications and that the values be consistent with all applicable limits of the safety analysis. In response to the staff's request, the NRC-approved methodology corresponding to the relevant proposed TS changes shown above as Item (1) (a) through (g) has been provided and identified in TS 6.9.1.8 for Catawba Units 1 and 2. In addition, the licensee's submittal from Mr. T. C. McMeekin to the NRC dated April 26, 1993 provides useful explanations of how these methodologies are used to develop the values of the parameters that are being relocated to the COLR.

This specification continues to require that all changes in cycle-specific parameter limits be documented in the COLR before each reload cycle or remaining part of a reload cycle and submitted upon issuance to NRC.

Based on our review, the NRC staff concludes that the modifications proposed by the licensee are in accordance with the NRC guidance in Generic Letter 88-16 on modifying cycle-specific parameter limits in the TS. Because plant operation continues to be limited in accordance with the values of cycle-specific parameter limits that are established using NRC-approved methodologies, the NRC staff concludes that this change has no impact on plant safety. Accordingly, the staff finds that the proposed changes to the applicable NRC-approved methodologies corresponding to the relevant proposed TS changes in TS 6.9.1.8 for Catawba Units 1 and 2 are acceptable.

The NRC staff has reviewed the request by the licensee to revise the TS of the Catawba Units 1 and 2 by removing the specific values of some cycle-dependent parameters from the TS and placing the values in a COLR referenced by the specifications. Based on this review, the staff concludes that these revisions are acceptable as well as the relevant NRC-approved methodologies corresponding to proposed TS changes in TS 6.9.1.8 for Catawba Units 1 and 2.

### 3.0 STATE CONSULTATION

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

#### 4.0 ENVIRONMENTAL CONSIDERATION

The amendments change requirements with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and change surveillance requirements. The NRC staff has determined that the amendments involve 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 amendments involve no significant hazards consideration, and there has been no public comment on such finding (58 FR 46227 dated September 1, 1993). Accordingly, the amendments meet 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 amendments.

#### 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 amendments will not be inimical to the common defense and security or to the health and safety of the public.

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