



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 48 TO FACILITY OPERATING LICENSE NPF-35
AND AMENDMENT NO. 41 TO FACILITY OPERATING LICENSE NPF-52
DUKE POWER COMPANY, ET AL
DOCKET NOS. 50-413 AND 50-414
CATAWBA NUCLEAR STATION, UNITS 1 AND 2

1.0 INTRODUCTION

By letter dated January 11, 1988, Duke Power Company, et al., (the licensee) requested amendments to Facility Operating License Nos. NPF-35 and NPF-52 for the Catawba Nuclear Station, Units 1 and 2. The proposed amendments would revise Sections 3.0 and 4.0 of the Technical Specifications (TSs) to incorporate the changes recommended in NRC's Generic Letter (GL) 87-09, "Sections 3.0 and 4.0 of the Standard Technical Specifications (STS) on the Applicability of Limiting Conditions for Operation and Surveillance Requirements." In this letter the NRC has concluded that certain recommended modifications to TSs 3.0.4, 4.0.3 and 4.0.4 would clarify the intent of these TSs and would resolve three problems associated with the existing requirements, as follows: (1) the revision of TS 3.0.4 would remove unnecessary restrictions on operational mode changes in those cases where conformance with Action Statement requirements provides an acceptable level of safety for continued operation for an unlimited period of time; (2) the revision of TS 4.0.3 would provide a 24-hour delay before implementing TS Action Statement Requirements due to a missed surveillance, in those cases where the required restoration time is less than 24 hours; and (3) the revision of TS 4.0.4 would assure that its Surveillance requirements do not prevent the plant's passage through or to Operational Modes as required to comply with TS Action Statement requirements.

2.0 EVALUATION

Technical Specification 3.0.4

The existing TS 3.0.4 specifies, in part, that "Entry into an Operational Mode or other specified condition shall not be made unless the conditions for the Limiting Condition for Operation (LCO) are met without reliance on provisions contained in the Action requirements." The staff position in GL 87-09 is that this TS, as presently written to exclude reliance on provisions contained in the Action requirements, "unduly restricts facility operation when conformance to the Action Requirements provides an acceptable level of safety for continued operation. For an LCO that has Action Requirements permitting continued operation for an unlimited period of time, entry into an operational mode or other specified condition of operation should be permitted in accordance with those Action Requirements. This is consistent with NRC's regulatory requirements for an LCO. The restriction on a change in operational modes or other specified

conditions should apply only where the Action Requirements establish a specified time interval in which the LCO must be met or a shutdown of the facility would be required. However, nothing in this staff position should be interpreted as endorsing or encouraging a plant startup with inoperable equipment. The staff believes that good practice should dictate that the plant startup should normally be initiated only when all required equipment is operable and that startup with inoperable equipment must be the exception rather than the rule."

In accordance with this position, the staff recommended in GL 87-09 the following change to replace the first sentence of TS 3.0.4:

"Entry into an OPERATIONAL MODE or other specified condition shall not be made when the conditions for the Limiting Conditions for Operation are not met and the associated ACTION requires a shutdown if they are not met within a specified time interval. Entry into an OPERATIONAL MODE or specified condition may be made in accordance with ACTION requirements when conformance to them permits continued operation of the facility for an unlimited period of time."

The licensee's proposed change to TS 3.0.4 conforms to the above staff recommendation and is, therefore, acceptable.

The revised TS 3.0.4 eliminated the need for exceptions to it in TSs for a number of individual systems. For such systems, the exceptions to TS 3.0.4 are deleted in the proposed TS changes. Since these deletions are consistent with the revised form of TS 3.0.4, we find that they are acceptable.

Technical Specification 4.0.3

Catawba TS 4.0.3 presently states that failure to perform a Surveillance Requirement within the specified time interval shall constitute a failure to meet the operability requirements for an LCO. Thus, the TS requires the immediate implementation of the shutdown actions of TS 3.0.2. In GL 87-09, the staff finds:

"It is overly conservative to assume that systems or components are inoperable when a surveillance requirement has not been performed. The opposite is in fact the case; the vast majority of surveillances demonstrate that systems or components in fact are operable. When a surveillance is missed, it is primarily a question of operability that has not been verified by the performance of the required surveillance. Because the allowable outage time limits of some Action Requirements do not provide an appropriate time limit for performing a missed surveillance before shutdown requirements may apply, the Technical Specifications should include a time limit that would allow a delay of the required actions to permit the performance of the missed surveillance.

This time limit should be based on considerations of plant conditions, adequate planning, availability of personnel, the time required to perform the surveillance, as well as the safety significance of the delay in completion of the surveillance. After reviewing possible limits, the staff has concluded that, based on these considerations, 24-hours would be an acceptable time limit for completing a missed surveillance when the allowable outage times of the Action Requirements are less than this time

limit or when shutdown Action Requirements apply. The 24-hour time limit would balance the risks associated with an allowance for completing the surveillance within this period against the risks associated with the potential for a plant upset and challenge to safety systems when the alternative is a shutdown to comply with Action Requirements before the surveillance can be completed."

On the basis of these considerations, the staff recommended in GL 87-09 the following revised version of TS 4.0.3:

"Failure to perform a Surveillance Requirement within the allowed surveillance interval, defined by Specification 4.0.2, shall constitute noncompliance with the OPERABILITY requirements for a Limiting Condition for Operation. The time limits of the ACTION requirements are applicable at the time it is identified that a Surveillance Requirement has not been performed. The ACTION requirements may be delayed for up to 24 hours to permit the completion of the surveillance when the allowable outage time limits of the ACTION requirements are less than 24 hours."

In GL 87-09, the staff also recommended the deletion of the statement that exceptions to TS 4.0.3 are stated in individual specifications. This statement is deleted because TS 4.0.3 is always applicable and there are no exceptions for individual specifications.

The licensee's proposed change to TS 4.0.3 is identical to the above version recommended by the NRC staff and is, therefore, acceptable.

Technical Specification 4.0.4

Catawba TS 4.0.4 currently requires that before a new Operational Mode is entered, Surveillance Requirements pertaining to the new mode are to be performed within time limits specified by TS 4.0.3. A conflict arises when Action Requirements require a mode change, but the Surveillance Requirements which become applicable in the new mode have not been performed within the specified interval. Consequently, the desired mode change would not be permitted by the existing form of TS 4.0.4. If an exception to TS 4.0.4 is allowed (e.g. for cases where the Surveillance Requirements can only be completed after entry into the mode to which they apply), there may still be a conflict with TS 4.0.3 if the Surveillance Requirements have not been performed within the allowed surveillance interval.

In GL 87-09, the staff took the following position:

"The potential for a plant upset and challenge to safety systems is heightened if surveillances are performed during a shutdown to comply with Action Requirements. It is not the intent of Specification 4.0.4 to prevent passage through or to operational modes to comply with Action Requirements and it should not apply when mode changes are imposed by Action Requirements. Accordingly, Specification 4.0.4 should be modified

to note that its provisions shall not prevent passage through or to operational modes as required to comply with Action Requirements. A similar provision is included in Specification 3.0.4.

It is not the intent of Specification 4.0.3 that the Action Requirements should preclude the performance of surveillances when an exception to Specification 4.0.4 is allowed. However, since Specification 4.0.3 has been changed to permit a delay of up to 24 hours in the applicability of the Action Requirements, an appropriate time limit now exists for the completion of those Surveillance Requirements that become applicable when an exception to Specification 4.0.4 is allowed."

Based on these considerations, the staff recommended in GL 87-09 that the following sentence be added to TS 4.0.4:

"This provision shall not prevent passage through or to OPERATIONAL MODES as required to comply with ACTION Requirements."

The licensee's proposed change to TS 4.0.4 is identical to the NRC staff's recommendation and is, therefore, acceptable.

Technical Specification 4.0.6

The proposed addition of TS 4.0.6 by the licensee is an administrative change which clarifies the application of the Surveillance Requirements to each unit individually except in individual cases where the surveillance parameters are different. These cases will be identified in parentheses or footnotes in the individual specifications. The staff finds that this proposed addition clarifies the applicability of the Surveillance Requirements to each unit and has no significant safety consequences. Therefore, it is acceptable.

Bases for TS 3.0 and TS 4.0

The licensee's originally proposed revisions to the Bases for TS 3.0 and TS 4.0 were identical to those recommended by the staff in GL 87-09, except for a sentence omitted in the Bases for TS 3.0.4. Following a telephone discussion with the NRC staff, the licensee agreed to include the omitted sentence. With this inclusion, the proposed Bases are identical to those recommended by the staff and are, therefore, acceptable.

3.0 ENVIRONMENTAL CONSIDERATION

These amendments involve changes to the installation or use of facility components located within the restricted area as defined in 10 CFR Part 20 and changes in surveillance requirements. The 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 exposures. The NRC staff has made a determination that the amendments involve no significant hazards consideration, and there has been no public comment on such finding. 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 these amendments.

4.0 CONCLUSION

The Commission made a proposed determination that the amendments involve no significant hazards consideration which was published in the Federal Register (53 FR 13013) on April 20, 1988. The Commission consulted with the state of South Carolina. No public comments were received, and the state of South Carolina did not have any comments.

We have 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, and (2) such activities will be conducted in compliance with the Commission's regulations, and the issuance of these amendments will not be inimical to the common defense and security or to the health and safety of the public.

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Dated: July 12, 1988

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AMENDMENT NO. 48 TO FACILITY OPERATING LICENSE NPF-35 - Catawba Nuclear Station, Unit 1
AMENDMENT NO. 41 TO FACILITY OPERATING LICENSE NPF-52 - Catawba Nuclear Station, Unit 2

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