



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 161 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 June 27, 1991, as supplemented December 20, 1991, Entergy Operations, Inc. (the licensee) submitted a request for changes to the Arkansas Nuclear One, Unit No. 1 (ANO-1) Technical Specifications (TSs). The requested changes would revise the plant TSs based on the recommendations provided by the staff in Generic Letter (GL) 87-09 related to the applicability of limiting conditions for operation (LCO) and the surveillance requirements of TS 3.0 and 4.0. The proposal revises LCO Section 3.0.4 and Surveillance Requirement Section 4, their associated Bases, and those associated TSs which no longer need to be exempt from the provisions of TS 3.0.4 due to its rewording. Section 4 is reformatted for clarity and consistency with GL 87-09 and the licensee's Inservice Inspection and Testing Program. Specifically:

Specification 3.0.4 is revised to define when its provisions apply: i.e., when the affected action statements permit continued operation for an unlimited period of time, instead of defining when the provisions of Specification 3.0.4 do not apply.

Specification 4.0.3 incorporates a 24-hour delay in implementing Action requirements due to a missed surveillance when the Action requirements provide a restoration time that is less than 24-hours.

Specification 4.0.4 clarifies that "This provision shall not prevent passage through or to operational modes as required to comply with Action requirements."

Also, a specific exemption to the provisions of TS 4.0.4 has been added to Item 31 of Table 4.1-1.

The December 20, 1991, letter provided clarifying information that did not change the initial proposed no significant hazards consideration determination.

2.0 EVALUATION

The changes proposed by the licensee have been reviewed considering the limitations set forth in GL 87-09 for TS 3.0.4, 4.0.3 and 4.0.4 as follows:

Specification 3.0.4

GL 87-09 recognizes, in part, that Specification 3.0.4 unduly restricts facility operation when conformance to the Action requirements provides an acceptable level of safety for continued operation in any mode. 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. The restriction on 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 or where entry into that operational mode would result in entry into an Action statement with such time constraints. However, nothing in the staff position stated in GL 87-09 should be interpreted as endorsing or encouraging plant startup with inoperable equipment. The GL 87-09 itself states that startup with inoperable equipment should be the exception rather than the rule.

The licensee has provided confirmation that the remedial measures prescribed by the Action statement for each change involving Specification 3.0.4 is consistent with the updated Safety Analysis Report and its supporting safety analyses. Further, the licensee has provided confirmation and certification that appropriate administrative controls and procedures are in place for limiting the use of Specification 3.0.4 exceptions in conjunction with its proposed TS change submitted in response to GL 87-09. Additionally, no changes are proposed that affect plant configuration, setpoints, operating parameters, or the operator/equipment interface.

Based on review of the licensee's proposal, and confirmations related above, we conclude in granting the exceptions proposed in response to GL 87-09 that: 1) the remedial measures prescribed by the Action statement for each change involving the applicability of the Specification 3.0.4 exception should provide a sufficient level of protection to permit operational mode changes and safe long-term operation consistent with the plant's Safety Analysis Report; and 2) the licensee has in place adequate administrative controls and procedures which will ensure that it will be the exception rather than the rule that startup of the plant with important safety features inoperable will occur.

We, therefore, find the following change to Specification 3.0.4 proposed by the licensee to be acceptable:

"Entry into a Reactor Operating Condition 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 a Reactor Operating Condition or other 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."

Specification 4.0.3

In GL 87-09 the staff stated that it is overly conservative to assume that systems or components are inoperable when a surveillance requirement has not been performed, because the vast majority of surveillances demonstrate that systems or components in fact are operable. 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 apply, the TSs 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 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.

This limit does not waive compliance with Specification 4.0.3. Under Specification 4.0.3, the failure to perform a surveillance requirement will continue to constitute noncompliance with the operability requirements of an LCO and to bring into play the applicable Action requirements.

Based on the above, the following change to Specification 4.0.3 is acceptable:

"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 time at which the Action is taken 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."

Specification 4.0.4

TS 4.0.4 prohibits entry into an operational condition or other specified condition until all required surveillances have been performed. This could cause an interpretation problem when operational condition changes are

required in order to comply with Action statements. Specifically, two possible conflicts between TSs 4.0.3 and 4.0.4 could exist. The first conflict arises because TS 4.0.4 prohibits entry into an operational mode or other specified condition when surveillance requirements have not been performed within the specified surveillance interval. The proposed modification to resolve this conflict involves the revision to TS 4.0.3 to permit a delay of up to 24 hours in the application of the Action requirements, as explained above, and a clarification of TS 4.0.4 to allow passage through or to operational modes as required to comply with Action requirements. The second potential conflict between TSs 4.0.3 and 4.0.4 arises because an exception to the requirements of 4.0.4 is allowed when surveillance requirements can only be completed after entry into a mode or condition. However, after entry into this mode or condition, the requirements of TS 4.0.3 may not be met because the surveillance requirements may not have been performed within the allowable surveillance interval.

The licensee proposes to resolve these conflicts by providing the following clarifying statement to TS 4.0.4:

"This provision shall not prevent passage through or to operational modes as required to comply with Action requirements."

The NRC staff has provided in GL 87-09 a clarification that: (a) it is not the intent of 4.0.3 that the Action requirements preclude the performance of surveillances allowed under any exception to TS 4.0.4; and (b) that the delay of up to 24 hours in TS 4.0.3 for the applicability of Action requirements provides an appropriate time limit for the completion of surveillance requirements that become applicable as a consequence of any exception to TS 4.0.4.

Consequently, the NRC staff finds the proposed changes to TS 4.0.4 acceptable.

Item 31 of Table 4.1-1

The licensee proposes an exception to the provisions of TS 4.0.4 for the 18-month surveillance test of the turbine overspeed trip mechanism. According to the licensee (per telcon), following a refueling outage, the overspeed trip test cannot be performed without changing modes. The test is performed by operating the main turbine at $\geq 10\%$ load for a period greater than 8 hours, unloading the turbine, and injecting a test signal to increase turbine speed to the overspeed trip setpoint. However, TS 4.0.4 prohibits entry into a higher mode of operation until all required surveillances have been performed. Therefore, an exception to TS 4.0.4 for the overspeed trip test is appropriate, and the staff finds the proposed change to Item 31 to be 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 and changes in surveillance requirements. 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 (56 FR 41581). 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: July 7, 1992