



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NOS. 157 AND 131 TO

FACILITY OPERATING LICENSE NOS. DPR-51 AND NPF-6

ENTERGY OPERATIONS, INC.

ARKANSAS NUCLEAR ONE, UNIT NOS. 1 AND 2

DOCKET NOS. 50-313 AND 50-368

1.0 INTRODUCTION

By letter dated October 15, 1991, Entergy Operations, Inc. (the licensee) submitted a request for changes to the Arkansas Nuclear One, Unit Nos. 1 and 2 (ANO-1&2), Technical Specifications (TS). The current diesel fire pump battery 18-month inspection for ANO-1&2 required by Surveillance Requirements 4.20.3.c.1 and 4.7.10.1.3.c.1, respectively, consists of visual inspections to verify that the batteries, cell plates, and battery racks show no visual indication of physical damage or abnormal deterioration. The requested changes would delete the requirement for visually inspecting the "cell plates" of the diesel fire pump battery from the TS.

2.0 EVALUATION

The intent of Surveillance Requirements 4.20.3 and 4.7.10.1.3 is to ensure operability of the diesel fire pump battery, thereby providing a reliable source of power for starting the diesel. The proposed changes to ANO-1&2 Surveillance Requirements 4.20.3.c.1 and 4.7.10.1.3.c.1, respectively, would delete "cell plates" from the 18-months surveillance. As a result, the fire pump diesel starting battery bank and charger would be demonstrated OPERABLE at ANO-1&2:

- "a. At least once per 7 days by verifying that:
 - 1. The electrolyte level of each battery is above the plates, and
 - 2. The overall battery voltage is \geq 24 volts.
- b. At least once per 92 days by verifying that the specific gravity is appropriate for continued service of the battery.
- c. At least once per 18 months by verifying that:
 - 1. The batteries and battery racks show no visual indication of physical damage or abnormal deterioration, and

2. The battery-to-battery and terminal connections are clean, tight, free of corrosion and coated with anti-corrosion material."

These surveillance requirements ensure operability of the diesel fire pump battery. The visual inspection of the cell plates is not feasible, given that the battery is opaque and not transparent. The inspection is performed by removing the cell cap and viewing the top of the cell plate. This method does not provide sufficient information to effectively determine the cell plate condition. The other requirements of the surveillance can be accomplished as written to ensure reliable operation.

The visual inspection of the cell plate in Surveillance Requirements 4.20.3.c.1 and 4.7.10.1.3.c.1 for ANO-1&2, respectively, is not necessary to ensure safe operation of the diesel fire pumps or to determine operability of the diesel fire pump battery. In addition, ANSI/IEEE Standard 450-1987, recommended practices for maintenance, testing, and replacement of large lead storage batteries for generating stations, does not require cell plate visual inspection as an inspection criteria. Therefore, the deletion of "cell plates" from item c.1 of the surveillance requirements, which are presently included in the TS for ANO-1&2, does not constitute reduction in performance requirements. This change will provide a test consistent with the design of the diesel fire pump battery.

On the basis of its review, the staff finds that the proposed changes are 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 comment.

4.0 ENVIRONMENTAL CONSIDERATION

The amendments change 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 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 (56 FR 64654). 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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