



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 91 TO FACILITY OPERATING LICENSE NO. NPF-29

ENERGY OPERATIONS, INC., ET AL.

GRAND GULF NUCLEAR STATION, UNIT 1

DOCKET NO. 50-416

1.0 INTRODUCTION

By letter dated October 18, 1991, the licensee (Entergy Operations, Inc.), submitted a request for changes to the Grand Gulf Nuclear Station (GGNS) Unit 1, Technical Specifications (TS). The requested changes would delete a TS requirement to perform a daily surveillance verifying the measured recirculation system drive flow to be less than or equal to the established drive flow for a given flow control valve position.

2.0 EVALUATION

The proposed change to the GGNS TS would delete the requirement to perform Note (h) daily for the Average Power Range Monitor - Flow Biased Simulated Thermal Power (APRM-FBSTP)-High scram function identified as item 2.b in Table 4.3.1.1.1. The loss of feedwater heater (LFWH) analysis is central to the issues surrounding the requested change to the simulated thermal power (STP) trip surveillance requirement because historically it is the only safety analysis for which STP trip credit has been taken. The analysis methodology for this event changed significantly during Cycle 1. As originally licensed for Cycle 1, the LFWH analysis credited the STP trip to minimize the calculated severity of the transient. An improved analytic methodology, first employed during the Maximum Extended Operating Domain (MEOD) analysis during Cycle 1 and then repeated for each reload, assumes no STP trip. The LFWH analysis provided by Grand Gulf for MEOD and each cycle reload allow reactor power to reach a new, higher steady state level and demonstrate acceptable critical power ratio (CPR) results. This approach is equivalent to considering the complete failure of the STP (and any other) trip. The GGNS reload safety analysis, therefore, does not take credit for the APRM-FBSTP scram function in ensuring that the safety limit of minimum critical power ratio (MCPR) is not exceeded. Also, it further demonstrates that any increase in the simulated thermal power scram setpoint is well analyzed for the LFWH event (i.e., no scram is assumed).

The GGNS has identified the deletion of this surveillance as a TS change beneficial to safety through reduction of operator burden. While the proposed change, in and of itself, may not provide a major reduction in operator burden, the licensee believe that the cumulative effect of this and similar changes planned for the future will be a positive safety improvement.

Based on the above evaluation of this TS change request, the staff finds that it is acceptable.

After evaluating the TS change request to delete the surveillance requirement for the flow based STP trip instrumentation, the removal of this surveillance is considered acceptable. The justification for this modification to the TS is based on the fact that the STP trip signal is no longer credited by the licensee in any of its safety analysis.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Mississippi 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 57696). 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: February 25, 1992