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December 1, 1989

License DPR-28
(Docket 50-271)

Morton Fairtile, Project Manager
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: Comments on Proposed Change No. 153
Emergency Technical Specification Change Request
Uninterruptible Power Supply System

Dear Mr. Fairtile:

We have reviewed the licensee request for modification of Section 3.5.A.4 of the Technical Specifications, Proposed Change 153, BVY 89-106, dated November 9, 1989, and offer the following comments pursuant to Section 50.91 of the Commission's Rules and Regulations.

We do not agree with the licensee basis and justification for the proposed action. We do not concur with the licensee assessment of no significant hazards (10 CFR 50.92). We do not believe licensee has provided the proper data and assessment to allow evaluation of this change. We request consideration of these comments before granting the request and before extending the temporary waiver of compliance (NRC letter of November 9, 1989 - Boger to Trembley) beyond its existing expiration (December 11, 1989).

The request involves changing the allowed out-of-service time (limiting condition for operation - LCO) for the uninterruptible power supply (UPS) from 7-days to 30-days. The UPS provides non-ac power to emergency core cooling system (ECCS) valves which must function within the initial seconds of a postulated design basis accident (DBA) in order to assure coolant delivery.

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Basis and Justification

1. Licensee relies on backup power from the Vernon Hydroelectric Station *within seconds* following failure of ac power sources during a DBA. Reliance on power from the Vernon Hydroelectric Station does not meet General Design Criteria (GDC) 2, 17 and 35 (10 CFR 50, Appendix A). GDC 35 requires the ECCS to mitigate any postulated loss of reactor coolant (LOCA) with onsite power, assuming unavailability of offsite power, and assuming a single failure. The Vernon Hydroelectric Station does not meet the requirements Class IE electrical power system and is not qualified for natural phenomena assumed for DBA protection.

Further, licensee assumes operator action within seconds to connect the Vernon tie. This is contrary to Standard Review Plan 6.3, Emergency Core Cooling System, III.19, which states:

"The complete sequence of ECCS operation from accident occurrence through long-term cooling is examined to see that a minimum of manual action is required and, where manual action is used, a sufficient time (*greater than 20 minutes*) is available for the operator to respond."

The ECCS valves controlled by UPS are assumed to function in a matter of seconds in licensee's approved safety analysis. Reliance on correct operator action in such a short period defies the human factors lessons learned from the Three Mile Island accident in which over 100 alarms went off in the early stages of the accident.

2. Licensee supports its justification by referring to a recently completed LOCA analysis which does not rely on the UPS. If licensee wishes to take credit for this analysis, it should be submitted for review and approval with this proposed change.
3. Licensee relies on probabilistic studies which show unavailability of UPS is not a major risk source. If licensee wishes to take credit for these studies, they should be submitted for review and approval with this proposed change.

Significant Hazards Consideration

To demonstrate that no significant hazard is presented by the proposed change, it must be shown that the proposed amendment would not: (1) involve a significant increase in the probability or consequence of an accident previously evaluated; (2) create the possibility of a new or different kind of accident from an accident previously evaluated; or (3) involve a significant reduction in a margin of safety. Licensee concludes these requirements are met.

However, the proposed change does involve a significant increase in the ...consequence of an accident previously evaluated. Under the design criteria in the current licensing basis for the DBA, licensee must assume:

1. a major LOCA
2. loss of offsite power
3. a concurrent single failure of onsite ac power in the unbroken loop
4. a concurrent earthquake

Under these assumptions, the consequences of the previously evaluated accident are significantly increased with the unavailability of UPS.

In addition, the margin of safety of the ECCS is reduced by allowing the UPS to be out-of-service for up to 30 days.

Licensee has not submitted quantitative data to allow assessment of the significance of these actions, and therefore a 'no significant hazards' determination cannot be made. It is instructive to note that TMI followup item II.K.3.17 (NUREG-0737) specifically addresses ECCS technical specification allowable outage times as significant.

Information Necessary to Assess the Proposed Change

The issue of this proposed change is the basis of the LCO allowed outage times in the technical specifications. Licensee should identify the basis for the existing 7-day LCO, the basis for the requested 30-day LCO, and the quantitative effects of making the change (i.e. by how much is the probability of a severe accident/environmental release increased by the proposed change, and on what basis is the increase in probability acceptable?).

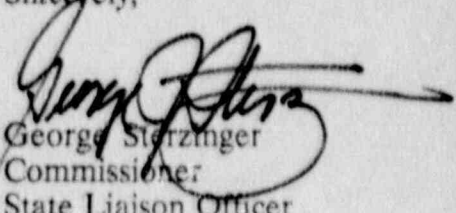
To evaluate and approve the proposed change, the staff should coordinate with the technical specification improvement program to develop an overall basis for LCO allowed outage times. This change should be evaluated considering licensee's compliance with the staff's overall basis for LCO outage times. This seems to be the intent of TMI item II.K.3.17.

Additional Comment

In addition to the above, we believe that additional alternate testing is required, should the proposed change be granted. It is not possible to perform alternate testing on the Vernon tie during the operating cycle since a dead bus is required for the test. This results in a maximum untested interval of 18 months, the operating cycle. The alternate testing for UPS unavailability (Technical Specification 4.5.A.4) requires a test within 24-hours of unavailability. Since a 7-day LCO shutdown is required, the maximum untested interval is 7 days. The requested change for a 30-day LCO does not include additional tests; thus the maximum untested interval becomes 30 days. We believe that the tests of Specification 4.5.A.4 should be performed within 24 hours of unavailability, and at 7-day intervals thereafter. This is consistent with the current reliability level.

We appreciate the opportunity to provide comments. If you have questions, please call Mr. William Sherman of our staff.

Sincerely,



George Sterzinger
Commissioner
State Liaison Officer

cc: Mrs. M. Miller, NRC Region I
Mr. G. Grant, NRC Senior Resident, VY
Mr. Warren Murphy, VY