



PSE&G Public Service
Electric and Gas
Company

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Robert L. Mittl General Manager
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September 17, 1985

Director of Nuclear Reactor Regulation
United States Nuclear Regulatory Commission
7920 Norfolk Avenue
Bethesda, MD 20814

Attention: Mr. Walter Butler, Chief
Licensing Branch 2
Division of Licensing

Gentlemen:

RESPONSE TO TMI ACTION PLAN ITEM I.G.1
"SPECIAL LOW POWER TESTING AND TRAINING"
RECOMMENDATIONS FOR BWR's (GENERIC LETTER 83-24)
HOPE CREEK GENERATING STATION

Public Service Electric & Gas Company (PSE&G) hereby submits for NRC review, response to Generic Letter 83-24 "Special Low Power Testing Training". This Generic Letter focuses on licensees performing a simulated loss of all AC power (Station Blackout - SBO) test. The objective of this test is to determine the temperature, pressure and level responses and associated time constraints of the reactor, drywell, containment and vital spaces in the event of a loss of heating, ventilation and air conditioning (HVAC) and cooling water with heat being rejected to the suppression pool via the safety relief valves. In this regard, Susquehanna licensee, Pennsylvania Power and Light, has indicated that a loss of all AC power test would subject the drywell to a severe temperature and humidity transient having the potential of damaging equipment in the drywell. The staff, upon further review of the basis for this requirement, the practicalities and value of such a test, and the proposed General Electric BWR Owners Group programs, concludes that an SBO test does not provide significant new information to justify its performance. Furthermore, one of the original criteria for a TMI Item I.G.1 special test is that the test must not pose a hazard to plant equipment. As such, the staff has recommended that the SBO test be deleted from the BWR I.G.1 staff position.

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The Energy People

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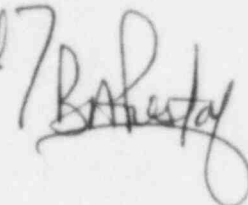
The staff states that if it can be demonstrated that the temperature and/or other SBO test conditions could adversely impact and pose a hazard to plant equipment, the BWR Owners Group recommendations by themselves, which PSE&G endorses, would constitute compliance with TMI Item I.G.1.

With respect to the above, PSE&G notes that the Hope Creek Generating Station (HCGS) plant drywell design is only 70% the size of Susquehanna's drywell with approximately the same reactor rated thermal power level. Therefore, in response to a Station Blackout event the impact to HCGS would be a more rapid increase of the drywell temperature than that described in Susquehanna's Safety Evaluation Report submitted to the Commission in June of 1982. The performance of a test simulating the loss of AC power would have the same adverse impact to the plant equipment as an actual event. One of the primary areas of concern for HCGS is primary containment temperature as it is for Susquehanna. Following a total loss of AC power condition, the drywell area temperature would increase rapidly as a result of heat addition (fixed losses from the reactor vessel) without drywell cooling capability. Attendant with this temperature increase comes a primary containment pressure increase. As containment pressure exceeds approximately 2 psig, a Loss of Coolant Accident (LOCA) signal would be sensed. Drywell air temperature would continue to increase, eventually exceeding the maximum normal operating condition. This severely impacts the operability of the nonsafety-related equipment located in the drywell and subjects the qualified safety-related equipment to an unnecessary stress.

Prolonged operation at or above the design environmental conditions for non-qualified equipment would pose a significant risk for damage and could necessitate equipment replacement upon recovery.

In the event there are any questions with respect to the above, do not hesitate to contact us.

Very truly yours,

R. L. Mittel 

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