



MISSISSIPPI POWER & LIGHT COMPANY

Helping Build Mississippi

P. O. BOX 1640, JACKSON, MISSISSIPPI 39205

August 18, 1981

NUCLEAR PRODUCTION DEPARTMENT

Mr. Robert L. Tedesco,
Assistant Director of Licensing
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Tedesco:

SUBJECT: Grand Gulf Nuclear Station
Units 1 and 2
Docket Nos. 50-416 and 50-417
File 0277/0755/L-860.0
TMI Action Item I.G.1,
"Training During Low Power
Testing"
Reference: AECM-81/84, dated
April 7, 1981
AECM-81/281

This letter, in addition to the referenced letter, is response to your letter dated January 27, 1981, that provided additional guidance for NUREG-0737 Item I.G.1 as applied to BWR OL applicants.

Mississippi Power & Light Company will perform a simulated loss of AC power test on the Grand Gulf Nuclear Station's Unit 1 reactor and containment systems, for the purposes of obtaining system/plant performance data applicable to the transient condition of a total loss of station AC power and to provide plant operators an opportunity to experience the plant specific responses in a controlled test environment.

It is MP&L's desire to conduct the test at the end of the first fuel cycle in order to take advantage of several factors:

- 1) Following the test a plant wide refueling/maintenance outage will begin, providing adequate time for equipment inspections following the test.
- 2) Operations personnel will have gained valuable experience during the startup testing program and, in addition, the GGNS plant simulator is expected to be fully operational in 1982 thereby affording operations personnel a chance to train on a simulated total station loss of AC power prior to the actual plant test.
- 3) The GGNS Emergency Response Facility Technical Support Center will be operational and the test could provide a training exercise under a controlled test environment.

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- 4) Adequate decay heat will exist for performing a valid test.

Since the functionality of the RCIC system under a total loss of AC system is vital, it is MP&L's opinion that the plant should not be placed in any extremely degraded condition during the test. As a result, the following items are listed as examples of considerations to be analyzed for possible incorporation into the test plans as they are developed.

- 1) Technical Specifications Limiting Conditions for operation (LCO) will be evaluated as specific test plans are developed. In general, LCO's will not be intentionally violated, thereby potentially requiring certain plant functions to remain operable in order to insure that the plant remains in a safe condition. One such modification envisioned would be the use of Suppression Pool Cooling if pool temperatures reach limits dictated by Emergency Procedures. NRC approval will be requested prior to any LCO's being intentionally violated.
- 2) Although MP&L recognizes that one of the basic purposes of the test is to experience the total loss of station AC power conditions including instrumentation black out, it is MP&L's opinion that this may not be in the best interests of assuring safe operations. Therefore, an evaluation of the available plant instrumentation shall be made to determine that sufficient information will be available to verify that conditions are not reached which may degrade major plant equipment, as well as for verifying the safety status of the plant at all times. As a result of this evaluation, selected plant instrumentation may not be de-energized. This requirement will also provide operations and engineering personnel assurance that the transient is proceeding in the expected manner and pertinent data is collected in order to evaluate the test results.
- 3) The HPCS system will not be totally disabled for the test. Due to the safety nature of the system, prevention of actuation may jeopardize the operator's ability to protect the reactor and insure that the plant remains in a basically safe configuration at all times. The HPCS initiation logic may be temporarily modified, with the NRC approval; however, the manual initiation logic will remain intact in order to provide a quick method of recovering RPV inventory. The remaining ECCS systems will be evaluated with respect to the degree of degradation deemed prudent to perform a meaningful test without unnecessarily compromising the indepth design safety features of the plant.
- 4) Based on an evaluation of electrical bus loads, certain systems maybe desired to remain functional to protect vital equipment. These systems will be identified and further evaluated on a case by case basis to determine if system non-availability would compromise equipment protection. Those loads shall remain energized or shall be re-energized as conditions warrant.

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Test termination will be based on pre-established limits of certain parameters, as provided in Emergency Procedures, to provide objective criteria for ensuring overall plant safety and equipment protection. Parameters to be limited shall as a minimum include:

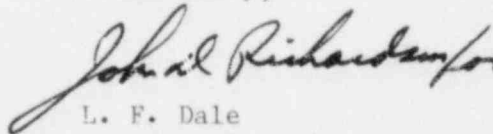
- o RPV Cooldown rates and water level
- o Containment temperatures and pressure
- o Drywell temperatures and pressure
- o Suppression pool temperatures
- o RCIC room temperatures

In addition a number of subjective conditions which would warrant test termination will include:

- o Evidence of increased drywell leakage
- o Evidence of a stuck open SRV
- o RCIC trip and inability to restart
- o Any gross instabilities in reactor pressure and level

It appears that certain aspects of the test will result in conditions inconsistent with NRC requirements, hence, prior to the test MP&L will provide the NRC with the test plan for review and approval. Performance of the test will be dependent on obtaining NRC approval of the test plan as well as completion of a safety evaluation analysis. MP&L's commitment to performing the test will also be dependent on continuing NRC requirements for test performance.

Yours truly,



L. F. Dale

Manager of Nuclear Services

WWK:SHH:JDR:cm

cc: Mr. N. L. Stampley
Mr. G. B. Taylor
Mr. R. B. McGehee
Mr. T. B. Conner

Mr. Victor Stello, Jr., Director
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