



MISSISSIPPI POWER & LIGHT COMPANY

Helping Build Mississippi

P. O. BOX 1640, JACKSON, MISSISSIPPI 39205

July 2, 1984

NUCLEAR LICENSING & SAFETY DEPARTMENT

U. S. Nuclear Regulatory Commission
Office of Nuclear Reactor Regulation
Washington, D. C. 20555

Attention: Mr. Harold R. Denton, Director

Dear Mr. Denton:

SUBJECT: Grand Gulf Nuclear Station
Unit 1
Docket No. 50-416
License No. NPF-13
File: 0260/L-860.7
Standby Diesel Generator Inspection
Order, Clarification of Test
Requirements
AECM-84/0325

The inspection of the Grand Gulf Nuclear Station Division 1 Standby Diesel Generator required by the Commission Order to Mississippi Power & Light Company (MP&L), dated May 22, 1984, is essentially complete. The engine is currently undergoing vendor recommended post inspection testing. The purpose of this letter is to document MP&L's understanding of the preoperational testing requirements set forth in Section IV.A of above referenced Order. The information presented here is based on various discussions held June 22 and 25, 1984, between Carl H. Berlinger of your staff and John G. Cesare, MP&L Manager of Nuclear Licensing.

Regarding the preoperational tests required by Section IV.A of the Commission Order, the following clarifications/interpretations are made:

1. Modified Starts at 40% Load

The required 10 modified diesel generator (D/G) starts will be conducted at a minimum of 50% load instead of the 40% load value so that these engine starts can qualify as valid starts, in accordance with Regulatory Guide 1.108. It is MP&L's understanding that the Staff's general intent was to limit test loads during the modified starts to some value less than 70% load. The proposed loading to 50% is consistent with this understanding. In addition, this preoperational testing will only be conducted following successful completion of vendor recommended "run in" testing. This vendor testing establishes the engine's readiness for the additional testing required by the Order and technical specification surveillances. It is MP&L's general intention to have engine starts qualify as valid starts, wherever practicable, so as to provide better statistical information on engine performance.

B407050024 B40702
PDR ADOCK 05000416
Q PDR

Member Middle South Utilities System

AD15
/10

2. Prelube/Air Roll Precautions

All engine starts required by the Order will be preceded by a prelube period and air roll to provide additional assurance that the testing evolution does not result in unnecessary engine wear.

3. Fast Start Procedure

By the Order's definition of the "fast start", execution of this test by the simulation of an ESF signal may cause an unnecessary transient challenge to the plant, i.e., containment isolation and activation of ECCS equipment. Of primary concern is the avoidance of the de-energization of the Division 1 ESF bus and the resultant containment isolation. As discussed with Dr. Berlinger, MP&L understands that as part of the preoperational testing, the reassembled D/G should be subjected to ECCS pump start transient loads.

It is noted that an ESF related actuation signal can be initiated from outside the control room, i.e., in the load shedding and sequencing system (LSS) located in the ESF switchgear room. Such a signal would avoid the full plant transient discussed above. However, this ESF related signal from the switchgear room is essentially equivalent to a manual start signal originating from the control room from the standpoint of generating a valid demand signal to start the standby diesel generator. Because there is no testing advantage to either method of initiating a diesel generator start, the manual start from the control room will be utilized.

Based on the above discussion, MP&L will conduct the "fast start" testing as described below:

- a. With Division 1 D/G in standby status, manually start Division 1 D/G from control room
- b. Synchronize to associated ESF bus
- c. Disconnect ESF bus from offsite power
- d. Manually start LPCS pump, RHR A pump, and SSW A pump. (Manual pump start evolution for all three pumps will be accomplished in approximately 10 seconds.)
- e. Synchronize ESF bus back to offsite power and load Division 1 D/G to at least 70% load (4900 KW).
- f. Shutdown LPCS and RHR pumps, as considered necessary, maintain load at a minimum of 70% for 4 hours, as required by the Order.

4. Preoperational vs. Surveillance : Test Loads

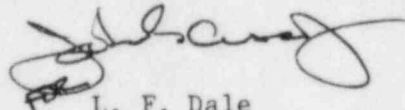
The Order specifies 70% load for both the fast starts and a single 24 hour test run. As a matter of practicality, the test value must have a tolerance or an upper/lower limit. To ensure adequate loading during these tests, the test load shall be at a minimum of 70% load.

By virtue of changes to the plant's technical specifications implemented by the Order, the Division 1 D/G is no longer specified in the technical specifications. However, MP&L considers that surveillances

currently required for operability of the Division 2 D/G should be applied to the Division 1 D/G. Therefore, in addition to the pre-operational testing specifically required by the Order, MP&L will conduct those surveillances on the Division 1 D/G necessary to declare that D/G operable. These surveillances will be conducted at test loads consistent with the current requirements applicable to the Division 2 D/G in the technical specifications. This will necessitate some testing at loads of 7000 KW and 7700 KW.

This letter documents MP&L's understanding regarding these issues. Please advise this office, if this information misinterprets or misrepresents your Staff's position in this matter.

Yours truly,



L. F. Dale
Director

JGC:rg

cc: Mr. J. B. Richard
Mr. R. B. McGehee
Mr. N. S. Reynolds
Mr. G. B. Taylor

Mr. Richard C. DeYoung, Director
Office of Inspection & Enforcement
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Mr. J. P. O'Reilly, Regional Administrator
U.S. Nuclear Regulatory Commission
Region II
101 Marietta St., N.W., Suite 2900
Atlanta, Georgia 30323