



MISSISSIPPI POWER & LIGHT COMPANY

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P. O. BOX 1840, JACKSON, MISSISSIPPI 39205

October 14, 1983

NUCLEAR PRODUCTION 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-860.0
Request for Additional
Information, Technical
Specifications
AECM-83/0640

REFERENCE: AECM-83/0519, letter to NRC, dated September 12, 1983, concerning
Technical Specification Terminology, ICSB Concerns.

This letter addresses the Nuclear Regulatory Commission (NRC) request for additional information sent to Mississippi Power & Light Company (MP&L) on September 12, 1983. Responses to the requests for additional information are attached. As a result of the reviews conducted to provide this information to the NRC, MP&L has identified a need to modify plant procedures, the Technical Specifications and the Final Safety Analysis Report (FSAR). The changes are identified in the attached pages. MP&L proposes to make these changes on the following schedule:

- a. Revise plant procedures for temporary jumper concerns by November 30, 1983.
- b. Submit changes to the Technical Specifications to address trip unit calibration frequency by December 15, 1983.
- c. Include corrections to Table 7.3-10 of the FSAR in the next annual update in June 1984.

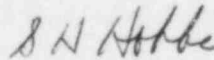
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MISSISSIPPI POWER & LIGHT COMPANY

Please contact this office if additional information is desired.

Yours truly,



for L. F. Dale
Manager of Nuclear Services

WJH/JOF/SHH:sap
Attachment

cc: Mr. J. B. Richard (w/o)
Mr. R. B. McGehee (w/o)
Mr. T. B. Conner (w/o)
Mr. G. B. Taylor (w/o)

Mr. Richard C. DeYoung, Director (w/a)
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RESPONSE TO SEPTEMBER 12, 1983 REQUEST
FOR ADDITIONAL INFORMATION

1. CONCERN:

Table 3.3.2-1 of the Grand Gulf Technical Specifications delineates the minimum number of operable channel requirements for the isolation actuation instrumentation. From a comparison of this table to Table 7.3-10 of the Grand Gulf FSAR the NRC staff has found that in most cases the technical specifications include only one half of the total number of channels provided. Confirm that the single failure criterion can be satisfied for each case where the minimum number of operable channels requirement is less than that of the total number of channels provided for each reactor protection system trip function.

RESPONSE:

The number of sensor channels shown in FSAR Table 7.3-10 is actually the total number installed in the plant. FSAR Table 7.3-10 states incorrectly that the number of sensor channels provided is the number per trip system. This point will be corrected in the annual FSAR update scheduled for submittal in June 1984. For example, for two trip systems the number of channels listed in the FSAR would typically be divided in half and then this number used as the number of channels per trip system in the Technical Specifications.

MP&L has conducted a review of Technical Specification Tables 3.3.1-1, 3.3.2-1, and 3.3.3-1 for the Reactor Protection System, Isolation Actuation and Emergency Core Cooling Actuation Instrumentation. This review was conducted to determine where the minimum number of operable channels requirement is less than the total number of instruments in the trip system and to verify that single failure criterion is satisfied in these cases. The only instruments found to be in this category are the Intermediate Range Monitors (IRM's) and the Average Power Range Monitors (APRM's) listed as items 1 and 2 in Technical Specification Table 3.3.1-1. For these instruments the minimum operable channels per trip system is listed as 3 in Technical Specification Table 3.3.1-1, but the number of channels per trip system installed in the plant is 4. Any one of the 4 channels per trip system installed in the plant for IRM's or APRM's will actuate its associated trip system and initiate a half scram. Therefore, to allow for a single failure, any 2 of the 4 channels provided per trip system (for a total of 4 of the 8 for both trip systems) is all that is required. The 3 (or 2 in Operational Conditions 3 or 4 for IRM's) channels listed in Technical Specification Table 3.3.1-1 are adequate to meet single failure criterion.

2. CONCERN:

Certain technical specification action statements for the isolation actuation instrumentation permit continued operation with inoperable components provided an inoperable instrument channel is placed in the tripped condition. From discussions with MP&L representatives the NRC staff believes that in some cases placing a channel in the tripped condition includes lifting leads and the use of temporary jumpers. Confirm that for each case where placing a reactor protection system

channel in the tripped condition requires the lifting of leads or the use of temporary jumpers the licensing criteria is satisfied. For example, confirm that the cable separation criteria is satisfied with the jumper installed and confirm that following a seismic event the system remains operable with the jumper installed. In addition, confirm that for each case where a reactor protection system technical specification action statement permits continued operation without requiring that the instrument channel be tripped that the single failure criterion is met or the protective action is initiated.

RESPONSE:

The responses to these concerns are provided as follows:

- a. MP&L does not normally use lifted leads or temporary jumpers to place reactor protection system instrumentation channels in the tripped condition. The referenced letter specifies four methods that are preferred for placing a channel in the tripped condition. However, lifted leads or temporary jumpers may be used to place a channel in the tripped condition by following the Grand Gulf plant procedure for temporary alterations. Temporary alterations used to place reactor protection system instrumentation channels in the tripped condition will be accomplished using an engineering work package (Maintenance Work Order) which will assure that seismic, environmental and separation criteria are considered. Plant procedures will be reviewed and revised as necessary by November 30, 1983 to accomplish this requirement.
- b. MP&L has reviewed Technical Specification Tables 3.3.1-1, 3.3.2-1 and 3.3.3-1 for the reactor protection system instrumentation to confirm that for each case where a technical specification action statement permits continued operation without requiring that the instrument channel be tripped that the single failure criterion is met or the protective action is initiated. The results of this review are as follows:
 - 1) ACTION 6 on Table 3.3.1-1 applies to the Turbine Stop Valve-Closure and Turbine Control Valve Fast Closure. Although ACTION 6 does not require the instrument channel to be tripped, it does require a reduction of thermal power within 15 minutes and reduction of turbine first stage pressure to less than the automatic bypass setpoint within 2 hours. Reactor protection is provided in this case since the turbine first stage pressure is reduced to less than the automatic bypass setpoint thus removing the necessity for the turbine stop valve-closure and turbine control valve fast closure trips.
 - 2) ACTION 32 on Table 3.3.3-1 applies to the manual initiation functions for the Emergency Core Cooling Systems Actuation Instrumentation. ACTION 32 does not require the associated systems to be declared inoperable until 8 hours has elapsed. This 8 hour time frame is not considered excessive since the automatic initiation functions for the systems are still operable and will function as designed.

These two findings are not considered to be significant and do not adversely affect single failure criterion considerations for the affected systems.

3. CONCERN:

The technical specification surveillance requirements for a few (6 of 49) isolation actuation instrument channels specify that the monthly channel functional test include a verification of the instrument channels' trip setpoints. From discussions with MP&L's representatives the NRC staff believes that the reactor protection system instrument setpoints are being verified at 18 month intervals during the channel calibration for most channels. This setpoint verification is performed using installed instrumentation. Although the NRC staff has not performed a detailed review of the methodology used to establish the trip setpoints for the Grand Gulf facility, the assumptions of the setpoint methodology typically used for the General Electric supplied systems would include a more frequent setpoint verification using more accurate test equipment. Therefore, for each reactor protection system instrumentation channel confirm that the method and frequency for determining the trip unit setpoints and resetting the setpoints is consistent with the assumptions of the setpoint methodology.

RESPONSE:

Addressing the overall issue of setpoint methodology, MP&L is participating with other BWR owners and General Electric to resolve this issue. MP&L will submit a setpoint methodology position statement to the NRC on a schedule consistent with the generic resolution.

MP&L has reviewed the reactor protection system instrumentation surveillance requirements in Technical Specification Tables 4.3.1.1-1, 4.3.2.1-1, and 4.3.3.1-1 to determine if frequency of calibration of trip units is consistent with manufacturer's recommendations. This review has revealed that Technical Specification Tables 4.3.1.1-1 and 4.3.3.1-1 for the Reactor Protection System and the Emergency Core Cooling Systems list monthly calibration frequencies for Rosemont Trip Units which meets the six month frequency recommended by the manufacturer. This increased calibration frequency (monthly) is not specified for the Rosemont Trip Units in Table 4.3.2.1-1 (Isolation Actuation Instrumentation). Presently all of these Rosemont Trip Units are being calibrated on a monthly frequency, but, to ensure consistency, changes to Table 4.3.2.1-1 of the Technical Specifications will be requested which require monthly calibration of Rosemont Trip Units (i.e., the setpoints will be verified and adjusted as necessary in accordance with Technical Specification requirements).

Technical Specification Table 4.3.2.1-1 for the Isolation Actuation Instrumentation presently requires channel calibrations on a refueling frequency for temperature monitoring instrumentation. The manufacturer recommends a yearly frequency for temperature switch calibrations. MP&L is currently meeting the yearly calibration recommendation, however, to promote consistency between manufacturer's recommendations and the Technical Specifications, MP&L proposes to change Table 4.3.2.1-1 to require yearly instead of refueling channel calibration frequency for Riley temperature switches.