



MISSISSIPPI POWER & LIGHT COMPANY

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May 14, 1985

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
Units 1 and 2
Docket Nos. 50-416 and 50-417
License No. NPF-29
File: 0025/L-860.0
Reference 1: AECM-83/0723 dated
November 4, 1983
Response to Generic Letter 83-28,
Items 2.1.1, 2.2.2 and 4.5.3
AECM-85/0157

An NRC letter dated March 15, 1985 (MAEC-85/0088) from E. G. Adensam to J. P. Richard forwarded requests for additional information or a final response for several Generic Letter 83-28 items. In discussions with your staff, it was agreed that those items with a request for additional information (2.1.1, 2.2.2, 4.5.2, 4.5.3) would be provided per the requested March 15 schedule. For the remaining items (2.2.1, 3.2), the final response would be provided as previously established in Reference 1.

Attached is the Mississippi Power & Light (MP&L) final response to Item 2.2.2 which incorporates the request for additional information. An interim response is provided for Item 2.1.1 which concerns reactor trip system classification. An interim response is also provided for Item 4.5.3 which concerns endorsement of the BWR Owners Group report NEDC-30844. A final plant-specific response will be provided for Item 4.5.3 within 90 days of NRC issuance of the NEDC-30844 evaluation. Please advise if further information is required.

Yours truly,

L. F. Dale
Director

ARR/SHH:vog
Attachment

cc (See Next Page)

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cc: Mr. J. B. Richard (w/a)
Mr. O. D. Kingsley, Jr. (w/a)
Mr. R. B. McGehee (w/a)
Mr. N. S. Reynolds (w/a)
Mr. G. B. Taylor (w/o)
Mr. R. C. Butcher (w/a)

Mr. James M. Taylor, Director (w/a)
Office of Inspection & Enforcement
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dr. J. Nelson Grace, Regional Administrator (w/a)
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Region II
101 Marietta St., N. W., Suite 2900
Atlanta, Georgia 30323

Item 2.1 Part 1

Equipment Classification (Reactor Trip System Components)

REQUEST

Licensee needs to confirm that the review of the RTS classification program is complete and that it verifies that RTS components are classified as safety-related and are identified as such on all documents and in information handling systems.

RESPONSE

Components are being reviewed for safety-related designation on all documents and procedures used to control safety-related activities and on the Master Equipment List. A preliminary review of mechanical and instrumentation and control reactor trip system components has been completed. MP&L plans to complete the review of all reactor trip system components by June 21, 1985. A final report on the results of this review will be provided by July 8, 1985.

Item 2.2.2

Vendor Interface (All Safety-Related Components)

REQUEST

Licensee needs to supplement his response to address the failure of the NUTAC program to address the concern about establishing and maintaining an interface between all vendors of safety-related equipment and the applicant. Licensee's response should also address the concerns about division of responsibility between the licensee and his vendors who provide maintenance or testing services to assure that needed control is maintained over procedures and maintenance instructions.

RESPONSE

The MP&L conclusion that the Vendor Equipment Technical Information Program (VETIP) developed by an INPO Nuclear Utility Task Action Committee (NUTAC) is the most effective method for the discovery and dissemination of technical information is based on experience in using the VETIP recommendations and attempts made by MP&L to contact safety-related equipment vendors.

In June of 1984, in response to Generic Letter 83-28, 273 letters were transmitted by MP&L in an attempt to contact and establish an interface with the vendors of safety-related equipment. Thirty-three percent of the vendors contacted responded. Of those responding, approximately 75 percent transmitted some additional technical information. The manpower requirements to continue a program of periodically contacting vendors was deemed prohibitive compared to the knowledge gained.

Instead of dedicating manpower to a vendor interface program, MP&L has found it much more efficient to use the same manpower to review and evaluate operating experience per INPO VETIP recommendations. The amount of information received for review and evaluation in six months (average of fifteen items per month from INPO along with an additional fifteen items per month from other sources) far exceeds that received as a result of the effort to contact safety-related equipment vendors. The evaluation of these operating experiences is performed using approved procedures. Recommendations derived from the evaluation process are transmitted to the appropriate MP&L organization.

It should be noted that safety-related vendors for GGNS are required to report to MP&L any defect potentially reportable under 10CFR21. MP&L evaluates the potentially reportable items using approved procedures.

The concern about the division of responsibility between MP&L and vendors who provide maintenance or testing services to assure that needed control is maintained over procedures and maintenance instructions has been evaluated. An approved upper tier document, Operational Quality Assurance Manual (OQAM/MPL-TOP-1A), delineates the division of responsibilities between MP&L and vendors providing maintenance or

testing services under the GGNS Operational Quality Assurance program. Approved lower tier documents, Plant Operations Manual Administrative Procedures, establish the manner by which the control of the division of responsibility is maintained. (Reference-Administrative Procedures 01-S-07-1, "Control of Work on Plant Equipment" and 01-S-09-1, "Procurement of Materials, Equipment and Services").

In conclusion, MP&L believes that the programs already in place meet the intent of the NRC proposed vendor interface program and provide the required division of responsibility between MP&L and vendors who provide maintenance or testing services. MP&L will continue to execute the described programs. The Vendor Equipment Technical Information Program as defined in the March, 1984 NUTAC document and the MP&L programs described above and in AECM-84/0508 (dated November 19, 1984) are considered a valid response to Item 2.2.2 of NRC Generic Letter 83-28. Accordingly, it is requested that the NRC reanalyze and reconsider the validity of the NUTAC program.

Item 4.5.3

Reactor Trip System Reliability (System Functional Testing)

REQUEST

Licensee needs to describe and present the results of studies of existing or proposed intervals for on-line testing of the reactor trip system. Such studies shall consider the concerns expressed in sub-items 4.5.3.1 through 4.5.3.5 of the generic letter, show how the selected intervals result in high reactor trip system availability, and present any resulting Technical Specification changes for staff review.

If you intend to formally endorse the BWR Owners Group response to Item 4.5.3 (NEDC-30844), the staff should be advised within 60 days (5/14/85). Your plant-specific response to Item 4.5.3 should then be provided within 90 days after the NRC completes its review of NEDC-30844 and issues its evaluation.

RESPONSE

MP&L is an active participant in the BWR Owners Group Technical Specification Improvement (TSI) Committee whose main goal is to evaluate possible relaxation of selected technical specification surveillance intervals and allowable out-of-service times for the Reactor Protection System and other systems by utilizing fault tree analyses. The committee submitted a licensing topical report (NEDC-30844) on January 31, 1985 to the NRC which responds to Generic Letter 83-28 Item 4.5.3. MP&L endorses this report.

NEDC-30844 describes analyses performed for both a relay and solid-state Reactor Protection System of a BWR plant. The analyses included the generation of fault tree models for a representative design. The cut sets produced from these fault tree analyses were analyzed using the FRANTIC III computer code to determine time-dependent RPS unavailability. The RPS unavailability is a function of the number of diverse parameters which reach a trip condition, which is dependent on the type of initiating event (IE) requiring RPS actuation. Therefore, the results of the study are given as an RPS failure frequency, which is the product of the IE frequency and average RPS unavailability summed over all IE's considered. This represents the likelihood of RPS failing to initiate a scram in combination with an initiating event (i.e., an actual scram demand) on a yearly frequency basis.

The overall relay RPS failure frequency was determined to be $4.6E-06$ /year, which is lower than other published values. This result was insensitive to changes in individual component failure rates, reduced redundancy during testing and "wearout" caused by testing. But it was found to be sensitive to the likelihood of common cause failure and human errors that can disable the scram contactors. However, even with the upperbound values for these failures rates, the RPS failure frequency was still determined to be low compared to the published values. Therefore,

it was concluded that this low RPS failure frequency, which is based on the current on-line functional testing intervals, demonstrates the adequacy of current test intervals. In addition, the potential exists for extending selected test intervals without significantly increasing the RPS failure frequency. This extension would provide benefits by reducing inadvertent scrams and wearout potential. The TSI committee is currently evaluating the extension of selected test intervals.

MP&L plans to continue its participation in the TSI committee and will submit technical specification changes for NRC review as deemed appropriate for extension of surveillance intervals. Within 90 days of NRC issuance of an evaluation of NEDC-30844, MP&L will provide a plant-specific evaluation.