



MISSISSIPPI POWER & LIGHT COMPANY

Helping Build Mississippi

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June 28, 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
References: 1) AECM-85/0157 dated
May 14, 1985
2) AECM-83/0723 dated
November 4, 1983
Response to Generic Letter 83-28,
Item 2.2.1
AECM-85/0201

An NRC letter dated March 15, 1985 (MAEC-85/0088) from E. G. Adensam to J. B. Richard requested additional information or a final response for several Generic Letter 83-28 items. Attached is the Mississippi Power & Light (MP&L) final response to Item 2.2.1. Responses for remaining items (2.1.1, 3.2, 4.5.3) will be provided as previously established in References 1 and 2.

Please advise if further information is required.

Yours truly,

L. F. Dale
Director

ARR/SHH:dmm
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)
U. S. Nuclear Regulatory Commission
Region II
101 Marietta St., N. W., Suite 2900
Atlanta, Georgia 30323

Item 2.2.1

Equipment Classification (Program For All Safety-Related Components)

REQUEST

Licensees and applicants shall submit, for staff review, a description of their program for safety-related equipment classification as described below:

1. For equipment classification, licensees and applicants shall describe their program for ensuring that all components of safety-related systems necessary for accomplishing required safety functions are identified as safety-related on documents, procedures, and information handling systems used in the plant to control safety-related activities, including maintenance, work orders and replacement parts. This description shall include:
 1. The criteria (procedure) for identifying components as safety-related within systems currently classified as safety-related. This shall not be interpreted to require changes in safety classification at the systems level.
 2. A description of the information handling system used to identify safety-related components (e.g., computerized equipment list) and the methods used for its development and validation.
 3. A description of the process by which station personnel use this information handling system to determine that an activity is safety-related and what procedures for maintenance, surveillance, parts replacement and other activities defined in the introduction to 10 CFR 50, Appendix B, apply to safety-related components.
 4. A description of the management controls utilized to verify that the procedures for preparation, validation and routine utilization of the information handling system have been followed.
 5. A demonstration that appropriate design verification and qualification testing is specified for procurement of safety-related components. The specifications shall include qualification testing for expected safety service conditions and provide support for the licensees' receipt of testing documentation to support the limits of life recommended by the supplier.
 6. Licensees and applicants need only to submit for staff review the equipment classification program for safety-related components. Although not required to be submitted for staff review, your equipment classification program should also include the broader class of structures, systems, and components important to safety required by GDC-1 (defined in 10 CFR Part 50, Appendix A, "General Design Criteria, Introduction").

RESPONSE

ITEM 1:

The criteria for identifying systems, structures, and components as safety-related are specified in the Grand Gulf FSAR Section 3.2 and MP&L's Q-List. The Q-List defines safety-related as:

Systems, structures, and components necessary to assure:

- a) The integrity of the reactor coolant pressure boundary,
- b) The capability to shut down the reactor and maintain it in a cold shutdown condition, or
- c) The capability to prevent or mitigate the consequences of accidents that could result in potential off-site exposures comparable to the guideline exposures of 10 CFR 100.

This definition also applies to activities that may affect the systems, structures, and components ability to provide the necessary assurance described above.

Within safety-related systems, components are classified as safety-related if they are necessary to support any of the system's safety functions as defined by its functional design criteria.

ITEM 2:

The information handling system which is currently being developed at GGNS is the Master Equipment List. This is a computerized data base which is generated from computerized lists of mechanical and electrical equipment, instruments, valves and piping. The compiled data is validated against Piping and Instrumentation Diagrams, GGNS Project Summary Q-List and design documents as necessary. The Master Equipment List will include all major electrical, mechanical, and instrumentation components. It will not include cable, racks, panels, supports (including cable trays, pipe hangers and snubbers) or sub-component items.

The process for generating and updating the Master Equipment List is controlled by an MP&L administrative procedure requiring several levels of review and approval. Approval must be obtained and supporting documentation provided for a change or new entry prior to changing the controlled fields in the data base. Upon completion of the entry, the data will be reviewed against the original data to ensure accurate input.

Since this handling system is under development, there will be cases where equipment or components are not yet in the data base. In those cases, MP&L Administrative Procedure "Determination of Safety/Quality Classifications" will be used. This procedure requires the use of FSAR Section 3.2 (Classification of Structures, Components and Systems) and the Q-List in determining safety classification.

ITEM 3:

Activities are defined as safety-related in 10CFR50, Appendix B, if they affect the safety-related functions of those systems, structures, and components which prevent or mitigate the consequences of postulated accidents which could cause undue risk to the health and safety of the public.

These activities include designing, purchasing, fabricating, handling, shipping, storing, cleaning, erecting, installing, inspecting, testing, operating, maintaining, repairing, refueling and modifying.

As stated in Item 2, the Master Equipment List is being developed to provide useful data for equipment and components in the plant including their safety classification. In addition, the Administrative Procedure "Determination of Safety/Quality Classification" is utilized to determine whether a component is safety-related if it is not listed in the Master Equipment List. Administrative procedures which control the activities listed above are being reviewed to assure that one of the two methods described are used to determine whether components affected by the activity are safety-related.

ITEM 4:

The Quality Assurance audit process provides further verification of procedural compliance. This assurance is in addition to the normal management controls discussed previously.

All nuclear safety-related administrative procedures and section procedures are reviewed by Quality Assurance personnel. Implementation of procedures are verified during audits which are conducted in accordance with the applicable requirements of the FSAR and the Operational Quality Assurance Manual. Any deficiencies noted during the performance of these audits are documented in Audit Reports and submitted to appropriate levels of management for prompt corrective action. Follow-up action which may include re-audits of deficiencies are conducted to verify implementation of corrective action. Audit reports are reviewed and approved by the appropriate manager of Quality Assurance and distributed to the Vice President of Nuclear Operations and cognizant managers.

ITEM 5:

Administrative procedures require that safety-related items are procured to original specification requirements or a properly reviewed and approved revision to those requirements. Original specifications provide for design verification, qualification testing, and supporting documentation where applicable.

For those items not specifically addressed in the original procurement specifications (such as spare or replacement items), administrative procedures require that their procurement be subject to all of the original quality, technical, test, qualification, and review requirements of the original item as applicable. Administrative procedures also require that an engineering review of

specific use and technical and quality requirements be used to verify that the procurement requirements for the safety-related items meet the original requirements for these items.

ITEM 6:

The Q-List, which is used as the basis for the equipment classification program, lists or references all major safety-related components through the use of Piping and Instrumentation Diagrams which are used as a more definitive reference. The Unit 1 Q-List was originally developed by the plant architect-engineer and is maintained by Nuclear Plant Engineering through the use of administrative procedures which meet the Grand Gulf Operational Quality Assurance Manual (OQAM) requirements. Non-safety-related systems which are covered by portions of the OQAM are also included in a Q-List appendix.

With respect to the equipment classification program in use at Grand Gulf for structures, systems and components important to safety, MP&L is participating in the Utility Safety Classification Group and is seeking a generic resolution to the Staff's concern in this regard through the efforts of the Group.