SYSTEM ENERGY RESOURCES, INC.

OLIVER D. KINGSLEY, JR
Vice President
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June 17, 1988

U. S. Nuclear Regulatory Commission
Mail Station P1-137
Washington, D. C. 20555

Attention: Document Control Desk

Gentlemen:

SUBJECT: Grand Gulf Nuclear Station
Unit 1
Docket No. 50-416
License No. NPF-29
Supplemental Response to
Generic Letter 83-28 Item 2.2.1
AECM-88/0121

By letter dated May 11, 1988 (MAEC-88/0109), the NRC Staff requested additional information regarding the Grand Gulf Nuclear Station Unit 1 equipment classification program which was described in a System Energy Resources, Inc. (SERI) letter dated June 28, 1985 (AECM-85/0201). AECM-85/0201 was submitted in response to Generic Letter (GL) 83-28 Item 2.2.1, "Equipment Classification and Vendor Interface (Program for All Safety-Related Components)".

Attachment I to this letter provides the additional information requested by the NRC for GL 83-28 Item 2.2.1.

As discussed during a May 18, 1988 telephone conversation with the NRC, SERI's commitment to develop and implement a Master Equipment List (MEL) as described in AECM-85/0201 has been changed. Instead of the MEL, a computerized "Component Data Base" (CDB) is being developed which will replace MEL as the intended method of complying with the GL 83-28 requirements. Therefore as agreed to in the May 18, 1988 conversation, the requested additional information for Items 2.2.1.3 and 2.2.1.4 as pertaining to the MEL is not being provided. Rather a discussion of the CDB features, methods for its validation, verification, and control is included in Attachment II to this letter.

The attached information should complete SERI's response to Item 2.2.1 of GL 83-28.

Yours truly,

FOR O D KINGSLEY JR

ODK:bms
Attachments

cc: (See Next Page)

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REQUEST FOR ADDITIONAL INFORMATION

GGNS RESPONSE TO GL 83-28 ITEM 2.2.1

The following requests regarding the Grand Gulf Nuclear Station (GGNS) Unit 1 response to Generic Letter (GL) 83-28 Item 2.2.1 submitted in AECM-85/0201, dated June 28, 1985 were received in an NRC letter dated May 11, 1988 (MAEC-88/0109). Beneath each NRC request for additional information is the GGNS Unit 1 response.

REQUEST 1

The licensee for the Grand Gulf Nuclear Station submitted information describing their existing classification program for safety-related equipment. We have reviewed this information and find that it fails to provide assurance that all safety-related components are identified as such on plant documentation that controls activities that may affect safety-related components. We conclude that the licensee's response is incomplete. The licensee should confirm that safety-related components are identified as such on plant documentation which controls activities that may affect these components.

RESPONSE

1. The GGNS Q-List encompasses the entire set of safety-related components. The Q-List provides summary level delineation of safety-related systems, structures, and components, and references appropriate design documents for more detailed resolution of a component's safety classification. The criteria used to identify systems, structures, and components as safety-related is as follows:

   Systems, structures, and components necessary to ensure:

   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 10CFR100.

   Nuclear Plant Engineering is responsible for maintenance and control of the Q-List.

2. Administrative procedures that control maintenance, repair, testing, and procurement activities refer the user to procedure 01-S-02-04 entitled "Determination of Safety/Quality Classification". 01-S-02-04 is the procedure used to determine a components safety classification and directs the user to the GGNS Q-List.

3. In addition to the above, a computerized "Component Data Base" (CDB) is being developed that will provide the capability to assess the classification of a component or piece of equipment by entering the appropriate data into a computer terminal. The CDB is presently scheduled for general use by June 1989. The CDB is further discussed in Attachment II of this submittal.

4. Therefore, safety-related components are identified as such on plant documentation which controls activities that may affect these components.

REQUEST 2

The licensee states that their administrative procedure "Determination of Safety/Quality Classification" is used by station personnel to determine if they are performing safety-related activities on components not listed on the Master Equipment List. The licensee indicates that station personnel are to use the information handling system to determine whether an activity is safety-related; however, the administrative procedures to require the use of the Master Equipment List were not complete at the time of the licensee's submittal (Reference 2). The licensee does not confirm that the information handling system is used for identifying procedures to be used for safety-related activities. The licensee's administrative procedures for use of the equipment classification system are incomplete. The licensee should confirm that the administrative procedures governing the use of the equipment classification system are complete and implemented.

RESPONSE

As discussed in a May 18, 1988 telephone conversation with the NRC, the Master Equipment List is not being completed, therefore, this request is no longer appropriate. Attachment II does provide the above requested information for the CDB which is the MEL successor.

REQUEST 3

The licensee's response to this item describes managerial controls that will be used to verify that the master equipment list has been prepared according to approved procedures and that its contents are verified. The licensee's response does not describe managerial controls which verify that the master equipment list is being maintained current and that it is being used to determine, as needed, equipment classification. We find the licensee's response to this item to be incomplete. The licensee should expand his description to include information which addresses how the master equipment list is maintained current and how management assures that it is being used to determine equipment classification as was intended.

RESPONSE

As discussed in a May 18, 1988 telephone conversation with the NRC, the Master Equipment List is not being completed, therefore, this request is no longer appropriate. Attachment II does provide the above requested information for the CDB which is the MEL successor.

COMPONENT DATA BASE

1. In response to Generic Letter 83-28 Item 2.2.1.2, System Energy Resources, Incorporated (SERI) committed in AECM-85/0201 dated June 28, 1985 to develop, validate, and implement a computerized information handling system called the "Master Equipment List" (MEL). The MEL was incomplete at the time of the submittal.

2. As an interim means of equipment classification SERI committed in AECM-85/0201 to use the Q-List and FSAR Section 3.2. As discussed in the response to NRC Request 1 in Attachment I of this submittal, the Q-List and FSAR Section 3.2 are still used as the documents to identify whether a system, structure, or component is safety-related.

3. In July 1987, SERI approved the project to develop the Station Information Management System (SIMS). SIMS is an integrated automated work preparation and tracking system. At that time SIMS was already in use at the other Middle South Utilities (MSU) nuclear stations (Arkansas Nuclear One and Waterford 3). As part of an MSU plan to enhance systemwide uniformity, it was decided Grand Gulf Nuclear Station (GGNS) should also use SIMS.

4. The SIMS software used at Waterford was purchased for GGNS in September 1987. A part of the SIMS software purchased included the Component Data Base (CDB). The CDB contains all of the component data used by SIMS in its software. Therefore, rather than expend resources to develop both the CDB (needed for SIMS) and the MEL (which would not work with SIMS without major software modifications) the decision was made to not complete MEL.

5. Starting in October 1987 plant walkdowns were begun to gather data for input to the CDB.

6. On January 8, 1988 the CDB software after being modified for use at GGNS was turned over with empty databases.

7. Phase I data (skeletal data for each component) entry into the CDB commenced January 18, 1988 and was completed April 29, 1988. Approximately 48,000 components were entered into the CDB.

8. In May 1988, Phase II data entry began for each component. The Phase II data is the detailed information for each component which was not included in the Phase I data.

9. The CDB is being developed to provide useful data for plant components that may require maintenance. This information will include the safety classification for the component. The CDB will include major electrical, mechanical, and instrumentation equipment. It will not include cable or supports (cable trays, nonsafety-related pipe hangers, nonsafety-related snubbers).

10. The CDB will then be used for component safety classification determination. The intent is to have a controlled source document listing all plant components and their safety classifications that is both complete and accurate. The CDB will be accessible throughout the plant and thus will be a single, controlled, consistent and unambiguous information source.

11. The controls for developing and maintaining the CDB are Administrative Procedure 01-S-07-14, "Control and Use of the GGNS Equipment Index", SIMS Project Procedure No. 2," Data Entry/QC/Data Base Management", and SIMS Project Procedure No. 4, "Data Collection". 01-S-07-14 establishes the methods and controls for maintaining the GGNS Equipment Index. SIMS Project Procedure No. 2 provides the guidance for control of the data base and data input process for the generation and update of the CDB. SIMS Project Procedure No. 4 provides guidance for the collection and verification of equipment data for input into the CDB.

12. The data for the CDB is collected from various sources such as the following:

    - plant walkdowns
    - MEL data
    - GGNS surveillance program
    - equipment qualification files
    - purchase specifications
    - NPRDS data sheets
    - Equipment Index
    - Instrument Index (JS08)
    - design change packages

    The data input to the CDB is verified for accuracy prior to entry against controlled drawings, GGNS Q-List, and design documents.

13. Management verifies compliance with procedures for preparation and validation of the CDB through the SIMS project Quality Assurance program. In addition, the SERI Quality Programs Department performs independent audits of the SIMS project.

14. Once SIMS/CDB are complete, plant procedures will be revised to reference the CDB for determining equipment classification. These procedures are and will be subject to audit by the Quality Programs Department. In addition, reviews and audits are performed on documentation packages for activities that affect safety-related structures, systems, and components.

15. Phase II data entry into the CDB is currently scheduled for completion in April 1989. Plant implementation of SIMS/CDB is scheduled for June 1989. SERI will continue to use the interim methods of component safety classification as described in AECM-85/0201 until the SIMS/CDB is fully operational.