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SUBJECT: Responds to Generic Ltr 83-28, Item 2.2.1, "Quality Classification of Safety-Related Equipment."

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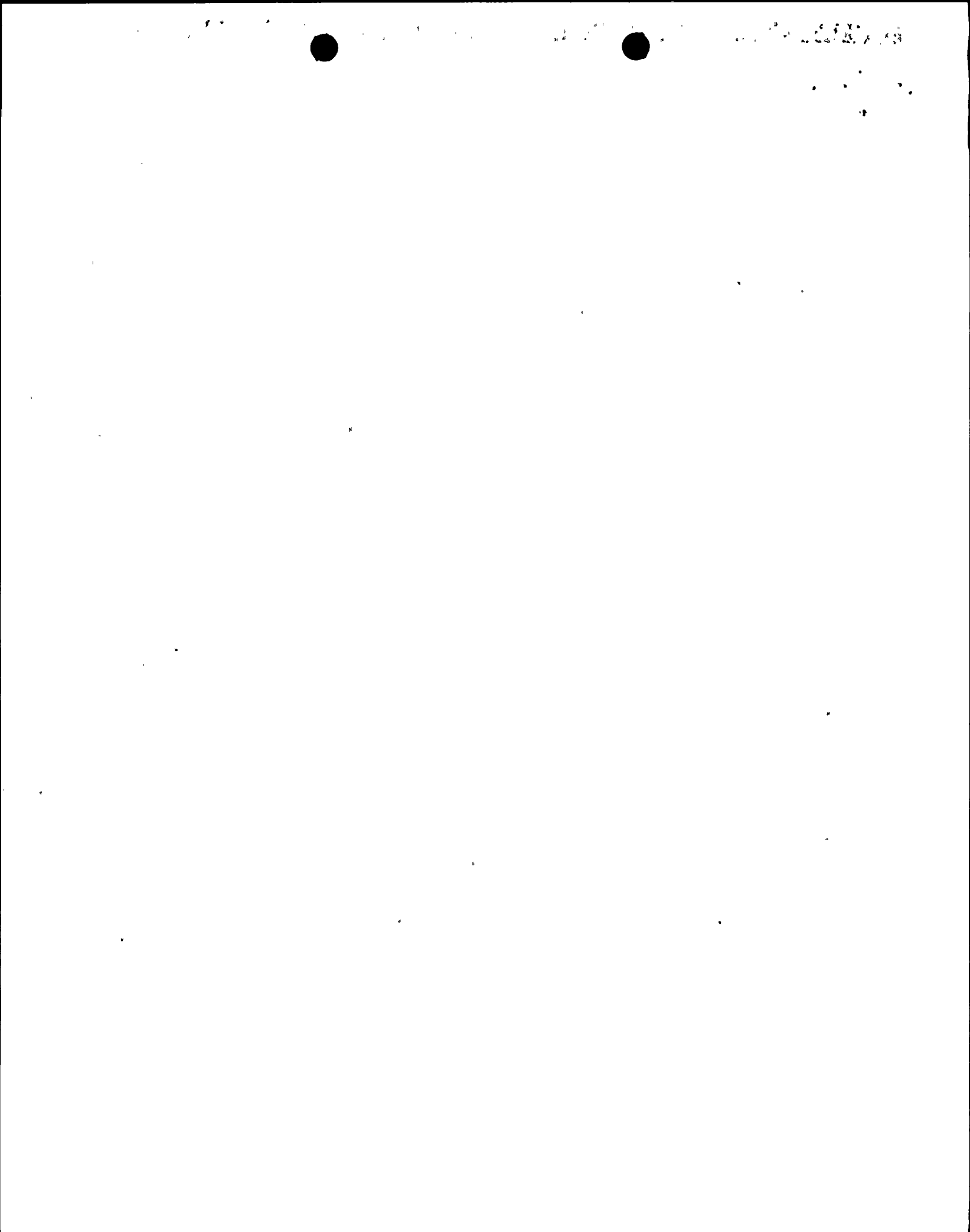
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Carolina Power & Light Company

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SHEARON HARRIS NUCLEAR POWER PLANT
DOCKET NO. 50-400/LICENSE NO. NPF-63
GENERIC LETTER 83-28 ITEM 2.2.1

Gentlemen:

Carolina Power and Light Company responded to Generic Letter 83-28, Item 2.2.1, Quality Classification of Safety-Related Equipment, by letters dated November 7, 1983 and May 31, 1985. Those responses generally described the SHNPP component level Q-List and how safety-related equipment is classified. On May 24, 1989 a conference call was held with members of your staff to discuss questions posed by the NRC staff reviewer, Mr. D. R. Lasher. Attached are CP&L's responses to the questions.

Please refer any questions regarding this submittal to Mr. Steven Chaplin at (919) 546-6623.

Yours very truly,

Leonard I. Loflin
Manager
Nuclear Licensing Section

LIL/SDC

cc: Mr. R. A. Becker
Mr. W. H. Bradford
Mr. S. D. Ebnetter

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SUBJECT: NRC verbal request for additional information concerning CP&L's response to Generic Letter 83-28 Item 2.2.1, Quality Classification of Safety Related Equipment (other than RPS)

REFERENCES:

- 1) Generic Letter 83-28 dated July 8, 1983
- 2) CP&L response LAP-83-516 dated Nov. 7, 1983
- 3) NRC RAI dated March 25, 1985: re Item 2.2.1
- 4) CP&L response NLS-85-186 dated May 31, 1985

The following is a listing of the information requested followed by CP&L's response.

SubItem

- 1) Criteria for identifying components - Does the SHNPP Q-list program identify as safety-related all those components which would be designated using the definition of safety-related included in the footnote of Item 2.2.1.

Response:

Generic Letter 83-28 item 2.2.1, "Equipment Classification", included the following definition of components to be included in the Licensees Equipment Classification System.

"Safety-related structures, systems, and components are those that are relied upon to remain functional during and following design basis events to ensure: (1) the integrity of the reactor coolant boundary, (2) the capability to shut down the reactor and maintain it in a safe shutdown condition, and (3) the capability to prevent or mitigate the consequences of accidents that could result in potential off-site exposures comparable to the guidelines of 10CFR Part 100."

Systems and components at SHNPP are classified Safety-Related in accordance with ANSI N18.2-1973, "Nuclear Safety Criteria for the Design of Stationary Pressurized Water Reactor Plants", and ANSI N18.2a-1975, "Revision and Addendum to Nuclear Safety Criteria for the Design of Stationary Pressurized Water Reactor Plants" and include those components which would be designated in the above quoted definition of safety-related.

- 2) Information handling system description - Our previous responses generally describe the component level Q-list database. (a) Is there a single source of classification information? (b) Does data entry include verification? (c) Is the database installed and functional? (d) How is access to the database controlled?

Response:

As described in the previous responses to Item 2.2.1 of G.L. 83-28 (References 2 and 4), the Equipment Data Base System (EDBS) is a

central electronic repository for a variety of equipment-related information. One feature provides for the storage and recall of the quality classification of components.

a) Plant Program PLP-602, "Equipment Data Base", charges the Nuclear Engineering Department (NED) with the responsibility for implementation and maintenance of the EDBS Quality Classification field. The Program requires that the quality classification field be controlled by procedure.

The equipment classification record in EDBS is controlled by NED Guideline E-22, "NED Preparation and Control of Component Level Q-List". The Guideline provides the mechanism by which equipment classification is determined, entered or modified in the database. The quality classification for components is obtained by using the many quality and design designations inherent in controlled design documents and applying the screening criteria in the Guideline for the various quality classifications. The resultant component classification is verified and then entered into the database. Use of this procedure ensures consistent identification of quality classification for components in the Q-list.

b) Plant Program PLP-602, "Equipment Data Base", requires that the quality classification field data entry be verified. This program requirement is not currently proceduralized in NED Guideline E-22.

The integrity of this data transfer function is provided by 1) control over who can perform this function as described below in item 2d, 2) the use of a limited number of responsible individuals for data entry who are knowledgeable of the functions they perform, and 3) reliance on personal accountability for ensuring data was entered correctly through self-verification. Further as described in item 4) below the EDBS, including the data transfer function, is subject to QA audits/surveillance. NED Guideline E-22 is being revised such that it appropriately reflects the requirements of PLP-602, thereby procedurally providing assurance for the accuracy of this function.

c) The EDBS is installed and operating. As stated in a) above, the quality classification information is automatically displayed in the Automated Maintenance Management System (AMMS) for use by personnel in the performance of maintenance. The EDBS is also available for coordination with the Corporate Material Management System for component procurement.

d) Access to EDBS is controlled through the use of the corporate data security system. Each person requiring access to EDBS, whether for edit functions or browse functions, is assigned a profile related to their job function and responsibility. Access to the quality classification field is controlled such that only select individuals may enter or alter classification data. If it is necessary for individuals other than the those in the responsible NED subunit to perform data entry or modification of the Q classification data, such as for bulk data entry, access to the EDBS Q classification field is provided for that discreet

effort. An audit trail is produced after data entry that provides a mechanism to check the data entry.

- 3) Description of personnel access for use - Provide a description of how Q-list information is accessed for use in routine maintenance and replacement equipment purchases.

Response:

As described in Reference 2, the EDBS is used in support of ordering spare parts, displaying information on schedule input for maintenance/testing activities, and providing input to maintenance work requests for use by the planner/analyst.

The Work Request & Authorization (WR&A) is the mechanism by which maintenance work is planned and implemented. Since EDBS and AMMS are linked, the quality classification data in EDBS is automatically provided on the WR&A.

The EDBS is also manually accessed as one reference for performing the engineering review for component replacements as described in Item 5) below.

In addition to the automatic data sharing between EDBS and AMMS, the EDBS Q-list can be directly accessed. As described above, access to EDBS is controlled through the use of corporate data security system profiles. Each person requiring access to EDBS is assigned a profile related to their job function and responsibility.

- 4) Management Controls - Describe the controls by which plant/corporate management ensures the Q-list data is validated, maintained current and used.

Response:

Plant Program PLP-608, "Q-List Development and Maintenance", establishes the requirement for the existence and maintenance of the component level Q-List. It also specifies that the current approved quality classification for components be displayed on EDBS. Plant Program PLP-602, "Equipment Data Base", assigns the responsibility for implementation of the various EDBS fields and requires procedural control of the data fields. The Quality Classification field is controlled by NED Guideline E-22.

The EDBS is integrated into performance of maintenance activities and is therefore continually in use.

In addition to the programmatic and procedural requirements and controls, the EDBS is subject to QA audits/surveillance. Since AMMS and the WR&As get information directly and automatically from EDBS, surveillance of maintenance activities indirectly checks the accuracy of the EDBS information.

- 5) Design Verification - How do we ensure that procured replacement parts meet requirements of originals as described in the Q-list (i.e., seismic, FP, EQ, evidence of testing, etc).

Response:

Procedure PMC-001, "Procurement and Cataloging of Parts, Materials, Equipment and Services", provides standard instructions for procurement of parts, material, equipment and services. It describes the forms, reviews and approvals necessary in procurement of equipment.

The SHNPP Engineering Technical Support Group has responsibility for determining the technical and QA requirements for procurement documents. Procedure TMM-104, "Determination of Technical and QA Requirements for Procurement Documents", provides a systematic method for developing or reviewing the applicable technical requirements, QA requirements and other requirements which are necessary to assure adequate performance and quality are included or referenced in the documents for procurement. The procedure directs the SHNPP Technical Support Group to conduct an engineering review of the item and develop or determine the technical requirements. It provides standardized directions and work sheets to ensure investigation and inclusion of applicable codes and regulations, operating, seismic, and/or environmental qualification requirements, and test, inspection and acceptance requirements.