

DEC 5 1984

Docket No.: 50-400

Mr. E. E. Utley, Executive Vice President,  
Power Supply & Engineer & Construction  
Carolina Power & Light Company  
Raleigh, NC 27602

Dear Mr. Utley:

Subject: Shearon Harris, Unit 1 - Request for Additional Information in  
regard to Environmental Qualification Program Audit Schedule

Based on our review of Section 3.11 (Environmental Design of Electric  
and Mechanical Equipment) of the Shearon Harris Final Safety Analysis Report,  
the enclosed questions and comments must be satisfactorily resolved before an  
audit can be scheduled. Please contact Mr. Bart Buckley (301-492-8379) if  
you should have any questions on this matter.

Sincerely,

ORIGINAL SIGNED BY

George W. Knighton, Chief  
Licensing Branch No. 3  
Division of Licensing

Enclosure:  
As stated

cc: See next page

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Additional Information Required for  
SHNPP Environmental Qualification Program

Please Note: In all cases in the following questions and comments, the environmental qualification (EQ) program referred to is the harsh environment environmental program in response to 10 CFR 50.49.

- 270.1  
(SRP 3.11) Please describe in detail the methodology used to select equipment to be included in the SHNPP EQ program developed in response to 10 CFR 50.49. Your response should address the internal review process used to assure the accuracy and completeness of the list of equipment and the criteria used for excluding any equipment item from the program.
- 270.2  
(SRP 3.11) Page 3.11.1-1 of the FSAR states that plant safety related systems are identified in Table 3.2.1-1. Please correlate the systems listed on Table 3.2.1-1 with the systems included in the EQ program. For any system listed in Table 3.2.1-1 which is not included in the EQ program, provide the justification for exclusion of the system (e.g., all system components located in a mild environment, etc.). Indicate the safety functions of the systems included in the EQ program.
- 270.3  
(SRP 3.11) Provide information which demonstrates how the SHNPP EQ program complies with the scope of 10 CFR 50.49. Specifically you must address how the EQ program is in compliance with 10 CFR 50.49 (b)(2) and (b)(3) and the requirement that all design basis events have been considered in the development of the list of equipment in the EQ program.
- 270.4  
(SRP 3.11) Provide a description of the surveillance/maintenance program which will be used to assure that the qualification status of equipment is maintained. Describe also the specific surveillance/maintenance activities to be performed on the following types of equipment: cables located inside primary containment, ASCO solenoid valves, Limitorque motor operators, Barton pressure transmitters.
- 270.5  
(SRP 3.11) Provide detailed descriptions of the methods and assumptions used to take credit for radiation dose reduction at specific equipment locations and methods used to calculate the surface temperature of equipment for which credit is taken for thermal lag.

270.6

(SRP 3.11)

Provide a description of the program used in the environmental qualification of safety related mechanical equipment in response to the guidance provided in the SHNPP SER. As a minimum, the following information should also be submitted in order to establish compliance:

- (a) A list of all safety related mechanical equipment items which includes the component description, manufacturer, model number and location in the SHNPP.
- (b) The qualification status of each item as established by the review of qualification documents.
- (c) If the qualification status has not been determined, briefly describe the tasks that still must be performed.

Please note that the information requested in (a) and (b) above can be effectively submitted in the form of individual Summary Component Evaluation sheets.

270.7

(SRP 3.11)

Indicate compliance with a one hour time margin for equipment items with operability times less than ten hours, or provide justification for reduced margin.

270.8

(SRP 3.11)

Please provide details of the assumptions made and an example of the calculations used to determine the environmental conditions due to a high energy line break in areas outside containment. In your response you should address the range of breaks considered in the analysis and assumptions made regarding isolation of pipe breaks.

270.9

(SRP 3.11)

Identify, by categories listed in NUREG-0737, the components included in the qualification program in response to TMI Action Plan Requirements.

Shearon Harris

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