

January 15, 1985

Docket Nos: 50-424
and 50-425

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Docket Nos. 50-424/425

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Mr. Donald O. Foster
Vice President and General Manager
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Waynesboro, GA 30830

Dear Mr. Foster:

Subject: Request for Additional Information on Vogtle Equipment Qualifications

Enclosed find staff requests for additional information on the equipment qualification program at Vogtle. The enclosed information must be received by the staff before a detailed review can take place. The information must be submitted at least four months prior to the onsite equipment qualification audit which will take place following installation of 85% of the electrical equipment.

If there are any questions on this, contact the project manager, Melanie Miller, at (301) 492-4259.

The reporting and/or recordkeeping requirements contained in this letter affect fewer than ten respondents; therefore, OMB clearance is not required under P.L. 96-511.

Sincerely,

Elinor G. Adensam, Chief
Licensing Branch No. 4
Division of Licensing

Enclosure:
As stated

cc: See next page

DESIGNATED ORIGINAL

Certified By

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A PDR

VOGTLE

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- 270.1 Prior to the completion of our review of your license application, it is necessary that we establish that you comply with the Commission's requirements applicable to environmental qualification contained in 10 CFR 50.49 for electrical equipment important to safety; GDC 4, Appendix A, 10 CFR 50; and Appendix B, 10 CFR 50, Sections III, XI, XVII.

As a result of the issuance of Section 50.49 of 10 CFR Part 50, some of the information requested in SRP3.11 and R.G. 1.70, Section 3.11, is no longer required for staff review. Other new information is required, however, and is defined in this guidance. By utilizing these guidelines to demonstrate compliance with the Commission's regulations, applicants can significantly reduce the need for requests for additional information from the NRC staff. The information required may be submitted in Section 3.11 of the FSAR or in a separate submittal. If the latter approach is chosen, Section 3.11 should reference the information in the environmental qualification program submittal. The following guidelines summarize the information to be furnished to the staff:

- a. The applicable criteria should be identified and shown to have been incorporated into the environmental qualification program.
- b. The systems and components selected for harsh environment qualification should be identified and demonstrated to be complete. Correlation with Table 3.2.1 of the FSAR should be provided for identification of safety-related equipment. Safety-related equipment exempted from harsh environment qualification requirements should be justified.

The scope of safety related electrical equipment that should be identified is defined in 50.49(b)(1).

To demonstrate compliance with 50.49 (b) (2) concerning nonsafety-related electrical equipment whose failure could prevent the satisfactory accomplishment of safety functions, and 50.49 (b) (3), post-accident monitoring equipment, the following information should be provided:

- (1) a list of all nonsafety-related electrical equipment, located in a harsh environment, whose failure under postulated environmental conditions could prevent the satisfactory accomplishment of safety functions by the safety-related equipment. A description of the method used to identify this equipment must also be included. The nonsafety-related equipment identified must be included in the environmental qualification program.
- (2) a list of all post-accident monitoring equipment currently installed, or that will be installed before plant operation, that is specified as Category 1 and 2 in R.G. 1.97 and is located in a harsh environment. The equipment identified must be included in the environmental qualification program, unless adequate justification for not requiring environmental qualification of the equipment is provided.

- c. The normal, abnormal, and accident environments should be provided for each plant zone. References should be made to other FSAR sections, where appropriate, for methodologies used to determine accident environments. The requirement for calculation of the radiation doses to equipment in close proximity to recirculating fluid systems inside and outside containment for LOCA events in which the primary system does not depressurize should be incorporated into the program (II.B.2 of TMI Action Plan, NUREG-0737). The time dependent environments should be defined for accident conditions.
- d. The qualification methodology should be summarized by reference to appropriate criteria (Reg. Guides, industry standards, etc.) and should address the following areas:
- (1) Margin
 - (2) Aging
 - (3) Dose rate and synergistic effects
 - (4) Use of analysis for qualification
 - (5) The maintenance/surveillance program, in particular its conformance with R.G. 1.33 and the industry standard it endorses, and its use in the aging program for equipment qualification.
- e. All equipment located in a harsh environment should be identified by its tag number, and its location and operability time provided. Mild environment equipment need not be included in this list. For electrical equipment, the information requested in Appendix E of NUREG-0588, and SRP 3.11 concerning test results should be submitted. An acceptable format for this information was provided with IE Bulletin 79-01B in the form of "SCEW sheets." Other formats providing the same information may be submitted however.

The information requested in item 4 of Appendix E, NUREG-0588 need not be submitted but should be available for audit by the staff.

- f. For mechanical equipment, the staff review will concentrate on materials which are sensitive to environmental effects, for example, seals, gaskets, lubricants, fluids for hydraulic systems, diaphragms, etc. A review and evaluation should be performed that includes the following:
- (1) Identification of safety-related mechanical equipment located in harsh environment areas, included required operating time.
 - (2) Identification of non-metallic subcomponents of this equipment.

- (3) Identification of the environmental conditions this equipment must be qualified for. The environments defined in the electrical equipment program are also applicable to mechanical equipment.
- (4) Identification of non-metallic material capabilities.
- (5) Evaluation of environmental effects.

The list of equipment identified should be submitted. From this list the staff will select approximately three items of mechanical equipment for which documentation of their environmental qualification should be provided for review. Also, the results of the review should be provided for all mechanical equipment in harsh environment areas and corrective actions identified. Justification for interim operation must be submitted prior to fuel load for any mechanical equipment whose qualification cannot be established.

Upon receipt of the above information, we will review your environmental qualification program for compliance with 10 CFR 50.49, and Appendix B, 10 CFR 50, and request any additional information needed to establish its acceptability. We will then perform an audit review of your electrical equipment environmental qualification files and associated installed equipment. Following this audit, an SER supplement will be prepared documenting the results of our review and evaluation. Prior to granting of an operating license, we must be able to conclude that you are in compliance with 10 CFR 50.49 and Appendix B, 10 CFR 50.