UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D. C. 20555



## MAY 16 1984

Docket Nos.: 50-424 and 50-425

MEMORANDUM FOR: Elinor Adensam, Chief Licensing Branch No. 4 Division of Licensing

FROM:

Robert J. Bosnak, Chief Mechanical Engineering Branch Division of Engineering

SUBJECT: REVIEW OF THE SEISMIC AND QUALITY GROUP CLASSIFICATION OF STRUCTURES, SYSTEMS, AND COMPONENTS AND COMPLIANCE WITH 10 CFR 50.55a FOR VOGTLE ELECTRIC GENERATING PLANT UNITS 1 AND 2 DOCKET NOS. 50-424 and 50-425

During our review of Sections 3.2 and 5.2 of the Vogtle FSAR, the Mechanical Engineering Branch has identified a number of items that require resolution with respect to FSAP Sections 3.2 and 5.2. Satisfactory responses to our inquiries as indicated in the enclosure are required in order that we may complete our review.

Robert J. Bosnak, Chief Mechanical Engineering Branch Division of Engineering

Enclosure: As stated

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## Vogtle Electric Generating Plant Units 1 and 2 Docket Nos. 50-424 and 50-425

210.5 In Table 3.2.2-1, page 1, the secondary side of the steam generator (item 6) should be identified as Quality Group B.

210.6 In Table 3.2.2-1, page 5, the safety injection pump lube oil coolers which are correctly identified as safety-related are classified Safety Class "O" and the construction code is identified as "manufacturer's standards", NRC staff practice requires that these components be classified Quality Groups B or C, that is, constructed to ASME Section III, Class 2 and 3, depending upon the system application.

Identify the principal code used in the construction of the lube oil coolers and demonstrate that the use of this code provides a level of quality commensurate with the safety function of the lube oil coolers.

- 210.7 In Table 3.2.2-1, page 7, the shell side (Auxiliary Component Cooling Water) ACCW of the letdown heat exchanger of the (Chemical and Volume Control System) CVCS is incorrectly classified Quality Group D and Safety Class 4. To be acceptable, the shell side of this component should be classified Quality Group C (Safety Class 3) and be within the scope of a Quality Assurance Program that is in conformance with 10CFR50, Appendix B.
- 210.8 In Table 3.2.2-1, page 7, the shell side, ACCW of the excess letdown heat exchanger of the CVCS is incorrectly classified Quality Group D and Safety Class 4. To be acceptable, the shell side of this component should be classified Quality Group C (Safety Class 3) and be within the scope of a Quality Assurance Program that is in conformance with 10CFR50, Appendix B.
- 210.9 In Table 3.2.2-1, page 8, the shell side, ACCW of the seal water heat exchanger of the CVCS is incorrectly classified Quality Group D and Safety Class 4. To be acceptable, the shell side of this component should be classified Quality Group C (Safety Class 3) and be within the scope of a Quality Assurance Program that is in conformance with 10CFR50, Appendix B.
- 210.10 In Table 3.2.2-1, page 11, the centrifugal charging pump lube oil coolers which are correctly identified as safety-related are classified Safety Class "O" and the construction code is identified as "manufacturer's standards." NRC staff practice requires that these ancillary components be classified quality Groups B or C, that is, constructed to ASME Section III, Class 2 or 3, depending upon the system application.

Identify the principal code used in the construction of the lube oil coolers and demonstrate that the use of this code provides a level of quality commensurate with the safety function of the lube oil coolers.

210.11

In Table 3.2.2-1, page 15, the (Nuclear Service Cooling Water) NSCW pump motor coolers which are correctly identified as safety-related are classified Safety Class "O" and the construction code is identified as "manufacturer's standards". NRC staff practice requires that these ancillary components be classified Quality Group C, that is, constructed to ASME Section III, Class 3.

Identify the principal code used in the construction of the NSCW pump motor coolers and demonstrate that the use of this code provides a level of quality commensurate with the safety function of the motor coolers.

210.12 In Table 3.2.2-1, page 16, the following components of the Auxiliary Component Cooling Water System (ACCWS) are incorrectly classified Quality Group D, Safety Class 4, Codes and Standards Designator 5, and Q-List N:

- (1) ACCWS surge tanks
- (2) ACCWS pumps

(3) interconnecting piping and valves between the above components, the ACCWS heat exchangers, letdown heat exchanger, excess letdown heat exchanger, reactor coolant pumps auxiliary components, and seal water heat exchanger.

To be acceptable the above components should be classified Quality Group C, Safety Class 3, Codes and Standards Designator 3, and Q-List Y.

210.13 In Table 3.2.2-1, page 30, the AFW turbine lube oil coolers which are correctly identified as safety-related are classified as Safety Class "O" and the construction code is identified as "manufacturer's standards." NRC Staff practice requires that these ancillary components be classified Quality Group C, that is, constructed to ASME Section III, Class 3.

> Identify the principal code used in the construction of the lube oil coolers and demonstrate that the use of this code provides a level of quality commensurate with the safety function of the lube oil coolers.

210.14 In Table 3.2.2-1, pages 38, 39, and 40, diesel generator systems, such as (1) fuel oil storage and transfer system, (2) jacket cooling water system, (3) starting air system, (4) lube oil system, and (5) combustion air intake and exhaust system are classified Quality Group C in SRP's 9.5.4, 9.5.5, 9.5.6, 9.5.7 and 9.5.8. These SRP's are used by the NRC staff as the basis for determining the

acceptability of the systems. Therefore, where appropriate, the diesel generator system components in pages 38, 39, and 40 should be revised to reflect the guidance in the SRP's.

210.15 In Table 3.2.2-1, page 42, Post-Accident Sampling System there are three typo errors as follows: Item 4, Seismic Category I, should be 2. Items 6 and 7, Quality Group B, should be D. Table 3.2.2-1 should be revised accordingly.

- 210.16 In Table 3.2.2-1, page 52, safety-related piping and valves of the instrument and service air system are incorrectly classified Quality Group "NA" and Safety Class "O". To be acceptable, these components should be classified Quality Group C and Safety Class 3, AS DISCUSSED IN 229 9.3.1
- 210.17 In Table 3.2.2-1, page 58, the hydrogen recombiners are incorrectly classified Quality Group NA. To be acceptable, these components should be classified Quality Group  $B_{\mu}AS$ DISCUSED IN SRP6.2.5.
- 210.18 In Table 3.2.2-1, page 64, one of the sides of the auxiliary relay room ESF A/C is identified incorrectly as "tube side". The correct identification is "shell side."
- 210.19 In Table 3.2.2-1, page 87, the electrical penetration assemblies should be classified Quality Group B.
- 210.20 Verify that all components within the reactor coclant pressure boundary as defined in 10CFR Part 50.2 (V) are classified quality Group A and constructed to Section III, Class 1, of the ASME Boiler and Pressure Vessel Code in compliance with the Codes and Standards Rule, Section 50.55a of 10 CFR Part 50, or as a minimum, are classified Quality Group B and constructed to Section III, Class 2, of the code if the components meet the exclusion requirements of the rule.
- 210.21 Tables 1.9-1, 1.9-2, and 1.9-3 identify certain ASME Code Cases that have been used in the construction of components for Vogtle Units 1 and 2. A number of these Code Cases identified in Regulatory Guides 1.84 and 1.85 are conditionally acceptable to the NRC staff.

Verify that in those instances where conditionally acceptable code cases have been applied in the construction of components you are in compliance with the additional conditions applicable to each conditionally approved Code Case.

210.22 Provide a table in FSAR Section 3.2 of the codes and standards used in the construction of Quality Group A,B, C and D components for Vogtle Units 1 and 2. This table should be similar in format to Standard Review Plan Table 3.2.2-1. 210.23 The hydrogen monitoring subsystem pressure-boundary outside containment is identified in FSAR Section 6.2.5.2.4 as constructed to Quality Group B standards in conformance with R. G. 1.26. whereas in Table 3.2.2-1, Page 58, and in Figure 9.4.6-2, Sheet 2 of 2, these components are identified as Quality Group C.

Resolve this inconsistency in the FSAR.

210.24 In Table 3.2.2-1 identify the Quality Group, (Safety Class) and the Q-List classification of the reactor coolant pump seals.