

MEB-CQ-201505-3.2.2_#5 Response

DCD TIER 2, SECTION 3.2.2, Issue # 5

The definitions of Quality Groups A, B, C, and D do not appear consistent with the guidance of RG 1.26. For instance, Quality Group D is defined as non-safety-related systems that are not covered under Quality Group A, B, or C and that are designed to ASME B31.1. This definition does not take into account the other components listed in Table 1 of RG 1.26 such as pressure vessels designed to ASME Section VIII. Furthermore, the definition of Quality Group A does not clearly comply with the language in 10 CFR 50.55a, which states, in part, that components that are part of the reactor coolant pressure boundary must be Quality Group A unless failure of the component during normal reactor operation would not prevent the reactor to be shut down and cooled down in an orderly manner, assuming makeup is provided by the reactor coolant makeup system. The applicant discusses the “loss of enough reactor coolant to prevent orderly shutdown and cooldown,” but this does not capture the full scope of the regulation. The applicant has stated that the quality groups are assigned in accordance with RG 1.26, but the text does not appear consistent. Please observe and incorporate the guidance into the definitions of quality groups, or justify why exception is taken to the RG.

Response

Construction codes and standards of the Quality Group D comply with the Table 1 of RG 1.26. DCD 3.2.2, pages 3.2-8 and 3.2-9, states that “Quality Group D applies to non-safety related systems and components that are not covered under Quality Group A, B, or C and that are designed to ASME B31.1 code criteria or other codes and standards listed in Table 1 of NRC RG 1.26.”

KHNP will modify the definition of Quality Group in the DCD Tier 2, Subsection 3.2.2 to be consistent with RG 1.26, and markups will be provided via an RAI response.

Clarification items

1. The codes and standards for the pressure retaining components and their supports are specified in table 3.2.2-1 of SRP 3.2.2. Should the Quality Group be assigned to the supports as well as the supported pressure retaining components? KHNP understands that Quality Group is assigned to the components, but is not assigned to their supports (N/A); though they should apply the codes and standards in accordance with the Table 3.2.2-1 of SRP 3.2.2.
2. Appendix A to SRP 3.2.2 identifies additional guidance regarding Quality Group classification of certain systems and components not covered by general guidance of RG 1.26 such as the combustible gas control system, control room and ESF room ventilation systems, starting air system and lube oil systems of the emergency diesel engine, etc. What is the selection criteria of such systems and components to which Quality Group B or C is applied?