

Request for Additional Information No. 51 (757,761), Revision 0

9/09/2008

U. S. EPR Standard Design Certification

AREVA NP Inc.

Docket No. 52-020

SRP Section: 05.02.01.01 - Compliance With the Codes and Standards Rule, 10 CFR 50.55a

SRP Section: 05.02.01.02 - Applicable Code Cases

Application Section: 5.2.1.1

EMB1 Branch

QUESTIONS

05.02.01.01-2

U.S. EPR DCD Tier 2 Section 5.2.1.1 states that "The RCPB component classification complies with the requirements of GDC 1 and 10 CFR 50.55a. Table 3.2-1, Classification Summary lists the RCPB components, including pressure vessels, piping, pumps, and valves, along with the applicable component codes. Other safety related plant components are classified in accordance with RG 1.26, as specified in Section 3.2." However, Table 3.2-1 is not found in the applicant's submitted DCD Tier 2. AREVA NP is requested to clarify whether Table 3.2-1 is the Table 3.2.2-1 shown in Section 3.2.

05.02.01.01-3

U.S. EPR FSAR Tier 2 Section 5.2.1.1 states that a combined license (COL) applicant that references the U.S. EPR design certification will identify subsequent ASME code Editions or Addenda that may be used and will determine the consistency of the U.S. EPR design with construction practices (including inspection and examination methods) reflected within the subsequent code editions and addenda identified in the COL application. Section 5.2.1.1 also states that the Code of record for the design of U.S. EPR is the 2004 Edition (no addenda) of the ASME Code. Explain how the EPR design for piping and component will meet 10CFR50.55a(b)(1)(ii) and (iii) by using the ASME 2004 Edition.

05.02.01.01-4

EPR FSAR Tier 2 Section 3.12.2 references Section 2.0 of AREVA report ANP-10264NP, Revision 0, September 2006, for applicable codes and standards for the design of piping and pipe supports. Section 2.1 of ANP-10264NP states that piping analysis and pipe support design for the U.S. EPR addressed in this topical use the 2001 ASME Code, Section III, Division 1, 2003 addenda as the base code with restrictions identified in the Code of Federal Regulations, 10 CFR 50.55a(b)(1). This is inconsistent with the code and standard cited in FSAR Section 5.2.1.1 that the Code of record for the design of U.S. EPR is the 2004 Edition (no addenda) of the ASME Code. AREVA NP is requested to confirm whether the Code of record for the design of EPR is the 2004 Edition or the 2001 Edition through 2003 addenda of the ASME Code.

05.02.01.02-3

EPR FSAR Tier 2 Section 5.2.1.2 states that ASME Section III Code Cases acceptable for use in the U.S. EPR design, subject to the limitations specified in 10 CFR 50.55a, are listed in RG 1.84. Table 5.2-1—ASME Section III Code Cases lists the specific Code Cases used in the U.S. EPR design. However, there are only two code cases listed in Table 5.2-1. The applicant is requested to provide a complete list of Section III Code Cases used for the EPR design, as mentioned in Sections 3.8, 4.5, 5.4 and 10.3, including those used for the design of piping and pipe supports in the report ANP-10264NP.

05.02.01.02-4

EPR FSAR Tier 2 Section 5.2.1.2 indicated that ASME Section XI Code Cases acceptable for use for in-service inspection (ISI), subject to the limitations specified in 10 CFR 50.55a, are listed in RG 1.147 and described in Section 5.2.4 and Section 6.6. ASME OM Code Cases acceptable for use for in-service testing (IST), subject to the limitations specified in 10 CFR 50.55a, are listed in RG 1.192 and described in Section 3.9.6. FSAR Tier 2 also indicated that a COL applicant that references the U.S. EPR design certification will identify additional ASME Code Cases to be used. In response to RAI 41 05.02.01.02-1, AREVA NP indicates that U.S. EPR FSAR Tier 2 Section 5.2.4.1.8, states that no Code Cases applicable to Class 1 PSI or ISI requirements are invoked for U.S. EPR design. However, in Section 5.2.4.1.8, it also noted that Code Case N-729-1, "Alternative Examination Requirements for PWR Reactor Vessel Upper Heads with Nozzles Having Pressure-Retaining Partial-Penetration Welds" may be used to accomplish the in-service inspection for the reactor pressure vessel head in compliance with requirements of NRC order EA-03-009. AREVA NP is requested to provide a complete list of Code Cases used for EPR in-service inspection (ISI) and a complete list of OM Code Cases used for operation and maintenance associated with in-service testing. The listed Code Cases must be acceptable by RGs 1.147 or 1.192. If not, provide justification to meet requirements in accordance with 10 CFR 50.55a(b)(3), (b)(4) or (b)(6).