

Request for Additional Information No. 62 (917, 1103, 1127), Revision 0

9/22/2008

U. S. EPR Standard Design Certification

AREVA NP Inc.

Docket No. 52-020

SRP Section: 10.03.06 - Steam and Feedwater System Materials

SRP Section: 10.04.06 - Condensate Cleanup System

SRP Section: 10.04.08 - Steam Generator Blowdown System

Application Section: 10.3.6

CIB1 Branch

QUESTIONS

10.03.06-6

In order to clarify the COL applicant Combined License Information Item regarding the FAC (Flow Accelerated Corrosion) monitoring program, the staff requests that AREVA modify FSAR Tier 2, Section 10.3.6.3 and Table 1.8-2, Item No 10.3-2 to include a requirement for COL applicants to provide a description of their FAC program as well as an implementation schedule.

10.04.06-1

SRP Section 10.4.6 indicates that the materials of construction should be compatible with the service environment. FSAR Tier 2 Section 10.4.6.2.2 states the Condensate Polishing System (CPS) materials are compatible with system conditions; however, the materials of construction are not provided. Please provide the materials of construction of the CPS in the FSAR.

10.04.06-2

Branch Technical Position 5-1 addresses monitoring of secondary-side water chemistry in PWR steam generators. To satisfy the requirements of GDC 14, the FSAR should describe an approach for implementation of a secondary-side water chemistry monitoring and control program that is consistent with accepted industry practice, such as EPRI Secondary Water Chemistry Guidelines. The EPRI Secondary Water Chemistry Guidelines, Revision 6 specifies that continuous pH monitoring of the steam generator blowdown and condensate be provided as a diagnostic parameter. Describe the approach that will be used for continuous pH monitoring in the steam generator blowdown and condensate systems.

10.04.06-3

The EPRI Secondary Water Chemistry Guidelines, Revision 6 provide specific Action Level 1, 2 and 3 limits for many secondary water chemistry control parameters. Specific actions including reduced power and or shutdown are required if these limits are exceeded. Describe the action levels that are implemented.

10.04.06-4

The EPRI Secondary Water Chemistry Guidelines specify that the secondary-side water chemistry program include an optimized pH control program. Provide a description of the methodology used to control the pH in the condensate/feedwater cycle, including identification of the pH control additive and the optimized pH range.

10.04.06-5

The secondary-side water chemistry control program described in DCD Tier 2 Section 10.3.5 is generally consistent with the most recent revision of the EPRI PWR Secondary Water Chemistry Guidelines, and references Revision 6 of these guidelines. However, industry-recommended best practices for secondary-side water chemistry tend to evolve over time as reflected by periodic revisions to the EPRI guidelines. The staff, therefore, requests that the applicant consider whether a COL information item should be identified in the DCD requiring that the COL applicant describe how its plant-specific secondary-side water chemistry program will be maintained current with industry best practices (e.g., a commitment to follow the latest revision of the EPRI PWR Secondary Water Chemistry Guidelines).

10.04.06-6

In order to assure completeness and accuracy of the plant design and licensing basis, the following corrections should be made to the FSAR Section 10.4.6:

- a. In Section 10.4.6.2.2 Paragraph 1 - Table 3.2- 1 should be Table 3.2.2- 1

10.04.08-1

Branch Technical Position 5-1 addresses monitoring of secondary-side water chemistry in PWR steam generators as an acceptable way of meeting the requirements of GDC 14. BTP 5-1 indicates that the FSAR should describe an implementation of a secondary water chemistry monitoring and control program that meets the industry guidelines such as EPRI Secondary Water Chemistry Guidelines. The EPRI Secondary Water Chemistry Guidelines, Revision 6 specify that continuous pH monitoring of the steam generator blowdown be provided as a diagnostic parameter. Provide the methodology used to provide the continuous pH monitoring for the steam generator blowdown.

10.04.08-2

Conformance to GDC 13 requires the SGBS design to include provisions to monitor system parameters and maintain them within a range that allows the system to perform its impurity removal function, and thereby, assist in maintaining the integrity of the reactor coolant pressure boundary. FSAR Table 9.3.2.2 specifies that continuous monitors are provided for cation conductivity, specific conductivity, and sodium in the SGBS, without specifying the specific location of the monitors. Identify the location of the continuous monitoring for cation conductivity, specific conductivity and sodium.

10.04.08-3

In order to assure completeness and accuracy of the plant design and licensing basis, the following corrections should be made to the FSAR Tier 2 Section 10.4.8:

- a. In Section 10.4.8.2.1 Paragraph 7, Section 9.3.2 should be Section 9.3.2.2.1.2.
- b. In Section 10.4.8.2.2 Paragraph 1, Table 3.2-1 should be Table 3.2.2- 1.
- c. In the Section 10.4.8.2.2 Paragraph 1, the reference should be to RG 1.26 and RG 1.29
- d. In Section 10.4.8.6 Paragraph 1, Section 11.5 should be Section 11.5.4.3

10.04.08-4

In order to assure completeness and accuracy of the plant design and licensing basis, the following corrections should be made to the FSAR Tier 1 Section 2.8.7:

- a. Sections 3.4, 3.5, 3.6, and 3.7 refer to Figure 2.2.4-1; however, the correct reference is Figure 2.8.7-1.