

Draft

Request for Additional Information No. 65 (1017,1018,1019), Revision 0

8/28/2008

U. S. EPR Standard Design Certification

AREVA NP Inc.

Docket No. 52-020

SRP Section: 05.02.04 - Reactor Coolant Pressure Boundary Inservice Inspection and Testing

Application Section: 5.2.4

CIB1 Branch

QUESTIONS

05.02.04-1

Discuss the design details for preservice and inservice inspection of Class 1 austenitic and dissimilar metal welds (DMW) with respect to monitoring for primary water stress corrosion cracking (PWSCC). Specifically, address the method and type of nondestructive examination and two-sided access provisions. If two-sided access cannot be obtained to perform the same type of nondestructive examination method during inservice examination as performed during preservice examination, discuss how NRC regulations and the ASME Code ISI requirements will be met during plant operation. Note that the staff assumes that any relief from ISI of these susceptible welds on the basis of design, geometry, or materials of construction should not be necessary, since these factors can be rectified during the design stage before the plant is constructed. If radiography is to be used to supplement one-sided examinations, discuss how operational and radiological concerns associated with the method will be taken into consideration such that 100% examination of the required weld volume is practical during plant operation. Finally, provide a commitment that any changes to the design of EPR components by the COL applicant should include a discussion of the provisions to preserve accessibility when meeting IWA-1500 and 10 CFR 50.55a(g)(3)(i).

05.02.04-2

U.S. EPR FSAR Section 5.2.4.4 states that it is not necessary for an inspection interval for the Class 1 portions of the ISI Program to conform to the same inspection program as those for the Class 2 and Class 3 inspections. In addition, Section 6.6.4 of the U.S. EPR FSAR states that the Class 1 inspection intervals do not need to be the same that of Class 2 and 3 components. The staff recognizes that an interval may be extended by up to a year, but that extension applies to all components within the ISI program. Please provide additional information explaining the basis for permitting different intervals for the Code Class 1, 2, and 3 components within one operating unit under one ISI Program. Finally, if different inspection intervals are requested for the EPR Class 1 and Class 2 and 3 components, submit an alternative to the regulations pursuant to 10 CFR 50.55a(a)(3).

05.02.04-3

The U.S. EPR FSAR, Section 5.2.4.1.8 discusses Order EA-03-009 and ASME Code Case N-729-1, as guidance to the system boundary subject to inspection of the reactor vessel head.

Due to CRDM J-Groove weld cracking, the staff believes it is important that the most recent inspection guidance be applied during operation. The current NRC position applicable to inspection guidance for the reactor vessel is presented in the proposed amendments to 10 CFR 50.55a(g)(6)(ii)(D) related to reactor vessel head inspections (72 FR 16740). Please ensure the FSAR is consistent with augmented requirements for the inservice inspection program for the reactor vessel top head by implementing ASME Code Case N-729-1 as amended in the final rule in 10 CFR 50.55a.