

**Response to**

**Request for Additional Information No. 38, Revision 0**

**7/16/2008**

**U. S. EPR Standard Design Certification**

**AREVA NP Inc.**

**Docket No. 52-020**

**SRP Section: 17.5 - Quality Assurance Program Description - Design Certification, Early  
Site Permit and New License Applicants**

**Application Section: 17.5 and 1.9**

**CQVP Branch**

**Question 17.5-1:**

Section 17.5 of the EPR design certification FSAR references AREVA Topical Report ANP-10266A which was reviewed and approved by the staff on April 26, 2007. As documented in the staff's safety evaluation report, SRP 17.5 was in a draft format and did not contain a commitment to Regulatory Guide 1.37, Revision 1, at the time of the AREVA topical report approval. The final version of SRP 17.5 includes a commitment to Regulatory Guide 1.37, Revision 1. ANP-10266A includes a commitment to Regulatory Guide 1.37, Revision 0. Additionally, Table 1.9-2 of Section 1.9 of the EPR FSAR states conformance to Regulatory Guide 1.37, Revision 1 for the applicable EPR FSAR sections, except for section 17.5. AREVA needs to revise Table 1.9-2 of Section 1.9 of the FSAR and AREVA Topical Report ANP-10266A to show conformance and commitment to Regulatory Guide 1.37, Revision 1.

**Response to Question 17.5-1:**

AREVA NP concurs with the NRC comment; attached is a marked-up of pages B-2 and B-3 to AREVA NP Topical Report ANP-10266A revising RG 1.37, Revision 0 to RG 1.37, Revision 1 and deleting the reference to ANSI N45.21-1973, which is no longer endorsed by RG 1.37, Revision 1. The formal revision to ANP-10266A will be submitted under separate cover letter to NRC.

AREVA NP will revise the U.S. EPR FSAR, Tier 2, Table 1.9-2 to add a reference to U.S. EPR FSAR, Tier 2, Tier 2 Section 17.5 in the row for RG 1.37.

**FSAR Impact:**

U.S. EPR FSAR, Tier 2, Table 1.9-2 will be revised as described in the response and indicated on the enclosed markup.

# U.S. EPR Final Safety Analysis Report Markups

**Table 1.9-2—U.S. EPR Conformance with Regulatory Guides  
Sheet 3 of 19**

<b>RG / Rev</b>	<b>Description</b>	<b>U.S. EPR Assessment</b>	<b>FSAR Section(s)</b>
1.30, 08/1972	Quality Assurance Requirements for the Installation, Inspection, and Testing of Instrumentation and Electric Equipment	N/A-COL	N/A
1.31, R3	Control of Ferrite Content in Stainless Steel Weld Metal	Y	3.6.3
			5.2.3
			6.1.1
1.32,R3	Criteria for Power Systems for Nuclear Power Plants	Y	6.3
			Table 8.1-1
			8.2
			8.3.2.2.3
1.33,R2	Quality Assurance Program Requirements (Operation)	N/A-COL	N/A
1.34, 12/1972	Control of Electroslag Weld Properties	Y	5.2.3.4
1.35, R3	Inservice Inspection of UngROUTED Tendons in Prestressed Concrete Containments	N/A-OTHER (No ungrouted tendons)	N/A
1.35.1, 07/1990	Determining Prestressing Forces for Inspection of Prestressed Concrete Containments	N/A-OTHER (No ungrouted tendons)	N/A
1.36, 02/1973	Nonmetallic Thermal Insulation for Austenitic Stainless Steel	Y	5.2.3.2.3
			6.1.1
1.37, R1	Quality Assurance Requirements for Cleaning of Fluid Systems and Associated Components of Water-Cooled Nuclear Power Plants	Y	3.13
			5.2.3
			5.3.1
			5.4.2
			6.1.1
			17.5-1 → 17.5
			10.3
1.38, R2	Quality Assurance Requirements for Packaging, Shipping, Receiving, Storage, and Handling of Items for Water-Cooled Nuclear Power Plants	N/A-COL	N/A
1.39, R2	Housekeeping Requirements for Water-Cooled Nuclear Power Plants	N/A-COL	N/A

# ANP-10266A Markups

Regulatory Guide 1.28, Section C.2 with the clarification supplied for Regulatory Guide 1.88 in this Appendix.

- iii. Regulatory Guide 1.28, Section C.3: Audits – AREVA NP Inc. follows the regulatory position provided in Regulatory Guide 1.28, Section C.3 with the clarifications supplied in Regulatory Guide 1.144 in this Appendix.
- iv. ANSI/ASME NQA-1, Section 4.0, Design Verification – the clarifications noted for Regulatory Guide 1.64 in this Appendix, regarding the use of managers or supervisors as independent reviewers, applies.
- d. Regulatory Guide 1.29, Seismic Design Classification, Revision 3 – AREVA NP Inc. complies with the provisions of this Guide.
- e. Regulatory Guide 1.30, Quality Assurance Requirements for Installation, Inspection, and Testing of Instrumentation and Electrical Equipment, Revision 0 – this Guide endorses ANSI N.45.2.4 – 1972 (IEEE Standard 336 – 1971), “Installation, Inspection, and Testing Requirements of Instrumentation and Electrical Equipment During the Construction of Nuclear Power Generating Stations,” as an adequate basis for compliance with 10 CFR 50, Appendix B. This standard applies to on-site installation, inspection, and testing of safety related instrumentation and electrical equipment. This function is normally the responsibility of the plant owner, and this standard is reflected in the owner’s procedures applicable to the work. AREVA NP Inc. provides appropriate drawings, instructions, and consultation to aid the owner in compliance with this Guide.
- f. Regulatory Guide 1.37, Quality Assurance Requirements for Cleaning of Fluid Systems and Associated Components of Water-Cooled Nuclear Power Plants, Revision 01. AREVA NP Inc. complies with the provisions of this Guide. ~~–this Guide endorses ANSI N45.2.1—1973, “Cleaning of Fluid Systems and Associated Components During Construction Phase of Nuclear Power Plants,” as an adequate basis for compliance with 10 CFR~~

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~~50, Appendix B for on-site cleaning. This function is normally the responsibility of the plant owner, and this standard is reflected in the owner's procedures applicable to this work. AREVA NP Inc. specifies cleanliness requirements during the fabrication and shipment of safety related components to ensure that these components arrive at the site in satisfactory condition. These cleanliness requirements include consideration of chemical compounds that are known to contribute to intergranular cracking or stress corrosion cracking of stainless steel or nickel alloys. In addition to ASTM A 262, AREVA NP Inc. A 393 (previously ASTM A 708) to be a valid test for the detection of sensitization of austenitic stainless steel.~~

- g. Regulatory Guide 1.58\*, Qualification of Nuclear Power Plant Inspection, Examination, and Testing Personnel, Revision 1 – this Guide endorses ANSI N45.2.6 – 1978, “Qualifications of Inspection, Examination, and Testing Personnel for the Construction Phase of Nuclear Power Plants,” for use in compliance with 10 CFR 50, Appendix B. Although ANSI N.45.2.6 – 1978 is applicable only to the construction phase of a nuclear power plant, this Regulatory Guide states that the provisions of ANSI N45.2.6 – 1978 are “generally applicable... during fabrication prior to receipt of items at the construction site.” AREVA NP Inc. satisfies this Guide through ensuring that off-site inspection, examination, or testing is performed and/or monitored by AREVA NP Inc. QA representatives qualified to meet the applicable requirements of ANSI N45.2.6. AREVA NP Inc. ensures that nondestructive examinations are performed by personnel certified to SNT-TC-1A in compliance with Section 2 of this Guide, and those other inspections, examinations, or testing is performed by personnel qualified in accordance with applicable requirements.
- h. Regulatory Guide 1.64\*, Quality Assurance Requirements for the Design of Nuclear Power Plants, Revision 2 – this Guide endorses ANSI N45.2.11 – 1974, “Quality Assurance Requirements for the Design of Nuclear