## ArevaEPRDCPEm Resource

**From:** Tesfaye, Getachew
**Sent:** Friday, February 26, 2010 3:11 PM
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**Subject:** Draft - U.S. EPR Design Certification Application RAI No. 375 (4402, 4291), FSAR Ch. 9
**Attachments:** Draft RAI_375_SBPA_4402_4291.doc

Attached please find draft RAI No. 375 regarding your application for standard design certification of the U.S. EPR. If you have any question or need clarifications regarding this RAI, please let me know as soon as possible, I will have our technical Staff available to discuss them with you.

Please also review the RAI to ensure that we have not inadvertently included proprietary information. If there are any proprietary information, please let me know within the next ten days. If I do not hear from you within the next ten days, I will assume there are none and will make the draft RAI publicly available.

Thanks,
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**Hearing Identifier:** AREVA_EPR_DC_RAIs
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Request for Additional Information No. 375(4402), Revision 0

2/26/2010

U. S. EPR Standard Design Certification
AREVA NP Inc.
Docket No. 52-020
SRP Section: 09.02.02 - Reactor Auxiliary Cooling Water Systems
SRP Section: 09.05.01 - Fire Protection Program

Application Section: FSAR Chapter 9

QUESTIONS for Balance of Plant Branch 1 (AP1000/EPR Projects) (SBPA)

09.02.02-105

FSAR Tier 2 Section 10.2.2.4. “Excitation System,” states that the turbine building closed cooling water system (TBCCWS) provides cooling water to the brushgear air-to-water heat exchangers. However, the TBCCWS is not described in the FSAR.

FSAR Tier 2 Section 10.2.2.1.2, “TG Accessories,” lists many TG accessories systems such as stator cooling, seal oil, bearing lubrication oil; however, the cooling system for these accessories is not described in the FSAR. Verify whether this cooling systems is the same as TBCCWS.

FSAR Tier 2 Section 10.4.2.2.1, “General Description,” for the main condenser evacuation system states that a closed cooling water type system cools the heat exchanger for this system. This cooling water system is not described in the FSAR. Verify whether this cooling systems is the same as TBCCWS.

In accordance with 10 CFR52.47 (a)(24), the applicant should either provide a full description of the TBCCWS in Chapters 9 and 10 of the FSAR or revise FSAR Section 1.8, “Interfaces with Standard Designs and Early Site Permits,” to indicate that the TBCCWS is outside the scope of the EPR standard design and provide a conceptual design of the TBCCWS and the TBCCWS heat sink in Chapter 9 of the FSAR.

The FSAR should specifically address the TBCCWS components that require cooling, such as various heat exchangers, chillers, sample racks, oil coolers, seals, air compressors, and pumps, such as condensate and feedwater. In addition, portions of NUREG-0800 Standard Review Plan (SRP) Section 9.2.2, “Reactor Auxiliary Cooling Water System,” that pertain to the non-safety cooling water systems need to be fully addressed. This includes, General Design Criteria (GDC) 2, 10 CFR 20.1406, and Inspection, Testing, Analyses and Acceptance (ITAAC) requirements should to be discussed as applicable which includes interface requirements for conceptual design portions.

09.05.01-76

FSAR Table 2.7.5-3 Item 7.1 Commitment Wording states “The FWDS includes two separate fresh water storage tanks." FSAR Table 2.7.5-3 Item 7.1 Acceptance Criteria states “Each fire water storage tank is of greater than or equal to 300,000 gallons capacity.” The applicant should change the wording for clarity as follows:

FSAR Table 2.7.5-3 Item 7.1 Commitment Wording should be changed to read “The FWDS includes two separate fresh water storage tanks in accordance with RG 1.189 Regulatory Position 3.2.1.” FSAR Table 2.7.5-3 Item 7.1 Acceptance Criteria should read “Each fire water storage tank is of greater than or equal to 300,000 gallons capacity as determined per the guidance given in RG 1.189.”