

ArevaEPRDCPEm Resource

From: Getachew Tesfaye
Sent: Thursday, December 18, 2008 5:15 PM
To: 'usepr@areva.com'
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Subject: U.S. EPR Design Certification Application RAI No. 157 (1729), FSAR Ch. 6
Attachments: RAI_157_SPCV_1729.doc

Attached please find the subject requests for additional information (RAI). A draft of the RAI was provided to you on December 15, 2008, and on December 18, 2008, you informed us that the RAI is clear and no further clarification is needed. As a result, no change is made to the draft RAI. The schedule we have established for review of your application assumes technically correct and complete responses within 30 days of receipt of RAIs, excluding the time period of **December 20, 2008 thru January 1, 2009, to account for the holiday season** as discussed with AREVA NP Inc. For any RAIs that cannot be answered **within 45 days**, it is expected that a date for receipt of this information will be provided to the staff within the 45-day period so that the staff can assess how this information will impact the published schedule.

Thanks,
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U. S. EPR Standard Design Certification

AREVA NP Inc.

Docket No. 52-020

SRP Section: 06.02.02 - Containment Heat Removal Systems

Application FSAR Section: 6.2.2

QUESTIONS for Containment and Ventilation Branch 1 (AP1000/EPR Projects) (SPCV)

06.02.02-22

Containment Atmospheric Circulation System

1. In the event of a main steam line break that is high in the containment in the region outside of the steam generator compartments, the pressure differentials across the rupture foils and convection dampers will be the reverse of those which would occur for a loss of coolant accident or a main steam line break within a steam generator compartment. The fuses of the convection foils may not be exposed to the heated containment atmosphere and hence may not open.

Provide analyses of the containment pressures and temperatures that would result from a spectrum of main steam line breaks outside of the steam generator compartments to determine the most severe break size.

Provide justification that sufficient compartment dampers and doors will open to promote adequate containment circulation following a main steam line break outside of the steam generator compartments. The opening of foils and dampers may depend on the break size so that smaller breaks may produce less containment circulation and result in higher containment temperatures.

Describe the testing program by which the opening characteristics of the foils and dampers assumed in the safety analysis will be verified for the pressure differentials resulting from a main steam line break outside of the steam generator compartments.

2. The main feedwater lines traverse the annular region between the containment shell and the steam generator compartments. Provide evaluations of postulated main feedwater line breaks in the annular region demonstrating that sufficient foils and dampers will open to provide adequate containment post accident circulation.