ArevaEPRDCPEm Resource

From: BRYAN Martin (EXT) [Martin.Bryan.ext@areva.com]
Sent: Thursday, June 24, 2010 9:41 AM
To: Tesfaye, Getachew
Cc: KOWALSKI David J (AREVA NP INC)
Subject: FW: DRAFT RESPONSE FOR FSAR Chapter 9 Weekly NRC Telecon
Attachments: Blank Bkgrd.gif; DRAFT RESPONSE RAI 390 Q.09.02.02-106.pdf

Importance: High

Draft responses for today.

Martin (Marty) C. Bryan
U.S. EPR Design Certification Licensing Manager
AREVA NP Inc.
Tel: (434) 832-3016
702 561-3528 cell
Martin.Bryan.ext@areva.com

From: KOWALSKI David J (AREVA NP INC)
Sent: Thursday, June 24, 2010 7:48 AM
To: BRYAN Martin (EXT)
Cc: GARDNER George Darrell (AREVA NP INC); BALLARD Robert W (AREVA NP INC); CONNELL Kevin J (AREVA NP INC); HUDDLESTON Stephen C (AREVA NP INC); GHALI David (AREVA NP INC); SLOAN Sandra M (AREVA NP INC); MCINTYRE Brian (AREVA NP INC)
Subject: DRAFT RESPONSE FOR FSAR Chapter 9 Weekly NRC Telecon
Importance: High

Marty:

Please transmit to Getachew Tesfaye the attached partial set of DRAFT responses to RAI 390 questions. This response will be discussed at today's (6/24/10) FSAR Chapter 9 Weekly Telecon/GoToMeeting with the NRC.

Attached is the following DRAFT response:

- Response to RAI 390 - Question 09.02.02-106.

Note that this DRAFT response has not been through the final Licensing review/approval process; nor does it reflect technical editing.

Please call me if you have any questions. Thanks.

David J. Kowalski, P.E.
Principal Engineer
New Plants Regulatory Affairs

AREVA NP Inc.
An AREVA and Siemens company

7207 IBM Drive, Mail Code CLT-2A
Charlotte, NC 28262
Phone: 704-805-2590
Mobile: 704-293-3346

Fax: 704-805-2675
Email: David.Kowalski@areva.com

Hearing Identifier: AREVA_EPR_DC_RAIs
Email Number: 1596

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Created By: Martin.Bryan.ext@areva.com

Recipients:
"KOWALSKI David J (AREVA NP INC)" <David.Kowalski@areva.com>
Tracking Status: None
"Tesfaye, Getachew" <Getachew.Tesfaye@nrc.gov>
Tracking Status: None

Post Office: AUSLYNCMX02.adom.ad.corp

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Response to Question 09.02.02-106:

- Follow-up to Question 09.02.02-79:

  Check valves were not added to the interfaces between the decontamination system for small machine components system and the decontamination equipment for apparatus and vessels system users because these systems will not be reflected in U.S. EPR FSAR Revision 2. Check valves are located on the continuation of the figures to the remaining seal water supply system (SEWSS) users. The U.S. EPR FSAR Tier 2 figures do not reflect a level of detail that shows the interfaces between the SEWSS and the gaseous waste processing system, the operational chilled water system for gaseous waste processing system, and the liquid waste processing systems. Check valves are present in these systems, however; their respective tag numbers are 30KPL20 AA201, 30QNB61 AA006, and 30KPF11 AA032.

- Follow-up to Question 09.02.02-79:

  Valve 30GHW44 AA006 was inadvertently added to U.S. EPR FSAR Tier 2, Table 3.2.2-1–Classification Summary. This valve will be removed from the table.

- Follow-up to Question 09.02.02-80:

  The vent path for the nitrogen gas from the buffer tanks for the SAHRS and chemical and volume control system vents to the safeguard building controlled area ventilation system and fuel building ventilation system, respectively. These systems filter the gases before exhausting the gas through the vent stack. The operation of this vent path affects neither the occupants in the main control room nor the plant operators performing duties related to safe shutdown.

- Follow-up to Question 9.2.2-81:

  The severe accident heat removal system (SAHRS) functions in response to a severe accident potentially resulting in core melt. Specific detailed discussion of a low seal water pressure pump trip is located in U.S. EPR FSAR Chapter 19. Further discussion is deemed unnecessary since it has been addressed in the seal water supply system (SWSS) discussion.

  SAHRS component seismic classifications are listed in U.S. EPR FSAR Tier 2, Table 3.2.2-1–Classification Summary as they relate to GDC 2. A seismic initiated event is not considered a relevant scenario for a severe accident potentially resulting in core melt. Hence, not all components are required to be seismically classified. Relevant scenarios are addressed in U.S. EPR FSAR Tier 2, Section 19.2.4.2.2.

With respect to 10CFR20.1406, contamination control for systems is addressed in U.S. EPR FSAR Tier 2, Section 12.3.6.5. Primary systems (such as dedicated CCW) that support the SAHRS are addressed. The SAHRS components are located in dedicated radiological compartments. Refer to U.S. EPR FSAR Tier 2, Figure 12.3-27–Safeguard Building 4 -31 Ft Elevation Radiation Zones and Figure 12.3-28–Safeguard Building 4 -16 Ft Elevation Radiation Zones. Spread of contamination during testing is minimized by supporting system designs, cross contamination prevention and compartmentalization.

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- Follow-up to Question 9.2.2-81:

  The sizing of the SEWSS buffer tanks is based on a straightforward calculation. The required volume is simply obtained by multiplying the required total flow rate by the required total duration of time for the availability of seal water at each user. The 40-gallon amount is based on the total required flow rate of 0.00264 gpm in the duration required of 250 hours for GHW45 BB001, while total required flow of 9.25E-5 gpm in the duration required of 7000 hours for GHW 44 BB001. The total required flow rate and duration time values are based on a reference plant design. Since the buffer tanks are not safety-related tanks, such level of detail is not reflected in the U.S. EPR FSAR.

FSAR Impact:

U.S. EPR FSAR, Tier 2, Table 3.2.2-1 will be revised as described in the response and indicated on the enclosed markup.

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Table 3.2.2-1—Classification Summary
Sheet 110 of 185

KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
30GHW46 AA031	Seal Water Check Valve	NS	E	NSC	No	UKS	ANSI/ASME B31.1[6], ANSI/ ~~ASME B16.34[7]~~
~~30GHW44 AA006~~	~~Seal Water Check Valve~~	~~NS~~	~~E~~	~~NSC~~	~~No~~	~~UKS~~	~~ANSI/ASME B31.1[6], ANSI/ ASME B16.34[7]~~
30GHW44 AA191	Seal Water Pressure Protection Relief Valve	NS	E	NSC	No	UKS	ANSI/ASME B31.1[6], ANSI/ ASME B16.34[7]
30GHW45 AA191	Seal Water Pressure Protection Relief Valve	NS	E	NSC	No	UKS	ANSI/ASME B31.1[6], ANSI/ ASME B16.34[7]
30GHW40 AA002	Seal Water NI Isolation Motor-Operated Valve	NS	E	NSC	No	UKA	ANSI/ASME B31.1[6], ANSI/ ASME B16.34[7]
30GHW46 AA003/ 011	Seal Water Pressure Reducing Valves	NS	E	NSC	No	UKS	ANSI/ASME B31.1[6], ANSI/ ASME B16.34[7]
30GHW46 AA191/ 193	Seal Water Pressure Relief Valves	NS	E	NSC	No	UKS	ANSI/ASME B31.1[6], ANSI/ ASME B16.34[7]
30GHW11/12 AP001	Seal Water Pumps	NS	E	NSC	No	UBA	Manufacturer Standards

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