AREVAEPRDCDocsPEm Resource

From: HOTTLE Nathan (AREVA) [Nathan.Hottle@areva.com]
Sent: Monday, December 16, 2013 12:15 PM
To: Wunder, George; Eudy, Michael
Cc: GUCWA Len (EXTERNAL AREVA); RANSOM Jim (AREVA)
Subject: AREVA list of U.S. EPR actions from Rev. 5 meeting and ACRS meetings
Attachments: U.S. EPR FSAR Rev. 5 actions.xlsx; U.S. EPR ACRS actions.xlsx

George and Mike,

Here are the lists we have of actions from the ACRS meetings and from the U.S. EPR FSAR Rev 5 meeting on August 7/8, 2013. I have indicated that a few of the Rev. 5 actions can be closed. There are some others that we should be able to close very soon. I am missing one section of ACRS actions (Chapter 9 Group I) that I should be able to provide shortly. We are not aware of other ACRS actions. Looking forward to today's discussion on how we will track.

Nathan Hottle
AREVA Inc.
3315 Old Forest Road
Lynchburg, VA 24501
Phone 434-832-3864
Mobile 434-485-4239
nathan.hottle@areva.com

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Recipients:
"GUCWA Len (EXTERNAL AREVA)" <Len.Gucwa.ext@areva.com>
Tracking Status: None
"RANSOM Jim (AREVA)" <James.Ransom@areva.com>
Tracking Status: None
"Wunder, George" <George.Wunder@nrc.gov>
Tracking Status: None
"Eudy, Michael" <Michael.Eudy@nrc.gov>
Tracking Status: None

Post Office: FUSLYNCMX01.fdom.ad.corp

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U.S. EPR FSAR Rev. 5 actions.xlsx	14004	
U.S. EPR ACRS actions.xlsx	13636	

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Action item	Responsible Entity	Action	Closure Group
1	AREVA/NRC	Meeting to discuss changes and impacts on the PRA that have occurred since PRA cut-off date of September 2012.	**C**
2	AREVA/NRC	Decide on vehicle to discuss non-RAI related changes in Rev. 6.	**ALL**
3	AREVA	Discuss how changes are addressed in Section 17.4.	**C**
4	NRC	Slide 57, Staff needs to reconcile the AIA safety evaluation vs. Rev. 5	**ALL**
5	AREVA	Slide 6, Interior doors DCR – how does the security reviewer know about DCR revs. Confirm that this DCR was evaluated for AIA impact.	**ALL**
6	AREVA	Slide 6, remove decon system DCR – is there an COL Item to discuss portable system? Is interface capability discussed in Chp 11?	**C**
7	AREVA	Slide 20 – update slide. Send NRC PM latest slides.	---
8	NRC	RAI 563, non-safety control system changes in Chp 7 – NRC to review RAI 563 and Fukushima Technical Report	**C**
9	AREVA	Slide 52, remove component level connection from SICS to PACS. Confirm DCR description vs. the current I&C design.	**C**
10	AREVA	Slide 9 and 36, SSC classification – are changes in Table 3.2.2.-1 for SGBD in conformance with RG 1.143 and SRP 10.4.8 guidance?	**A, C**
11	AREVA/NRC	Slide 10, minimum thickness in Chapter 12 vs. the actual thickness in chapter 3. Can the staff confirm the minimum thickness is correct without performing an audit?	**C**

12	AREVA	Slide 28, RAI 578 – discuss the ESW flow margin changes by adding new flow path.	**B**
13	AREVA/NRC	Clarification phone call on RAI 563 – use of ASCE 7-10 for FP Building, there may be a follow-on RAI.	**C**
14	AREVA	Section 9.1.4, Spent Fuel Pool seal leakage rate inconsistency (AIA vs. design basis)	**B**
15	AREVA	Closure plan for RAP list in Section 17.4 to allow this to be tracked. Add this to the PRA audit plan action item list (or alternate method).	**C**
16	AREVA	Confirm Section 9.1.2 statement that water level will not drop to less than 10 feet above the top of the fuel assemblies. Check compared to changes that impact Fuel Building volumes.	**B**
17	AREVA	Reconcile ITAAC Table 3.8-1.	**C**
18	AREVA	Slide 36, Explain rationale and intended means to mechanically limit Main FW flow as described in Section 10.4.7.2.2.1. Changes made to support ATWS and I&C NSR failures.	**A**
19	NRC	Slide 36, Review RAI 563 and Fukushima Technical Report to determine how the potential for water hammer is addressed at the Fire Water Distribution to EFW interface.	**A, C**
20	NRC	I&C branch to review impact on communications power sources associated with RAI 549 (adequate backup power sources provided).	**A, C**
21	AREVA	Evaluate Tech Spec 3.7.22 for valve opening and closing requirements for SGBD transfer valves. This includes design basis, Tech Spec basis and supporting I&C.	**A, C**
22	AREVA	Confirm FSAR impacted figures in Chapter 3 and 12 associated with the following DCRs: - 113-7000556 - Slide 38 - 113-7006837 - Slide 40 Confirm other figure citations are correct in slides.	**C**
23	NRC	Slide 46 – Review RAD evaluations associated with 113-9103167.	**C**
24	AREVA	Slide 47 – Confirm whether RAD evaluation considered dose rate associated with HVAC duct material change (accessibility and shine)	**C**
25	NRC	Slide 48 – For CR 2013-3675, confirm changes in EQ calculations are acceptable.	**C**
26	AREVA	Slide 23 – For 113-9099652, confirm that change was fully evaluated from RAD perspective (e.g., zoning, transfer of source terms).	**B**
27	NRC	Send e-mail discussing other questions associated with RAD review.	**C**

Status
Closed. In general, design changes that may affect security are routed through the Security group for impact. Security group performs an impact assessment and identifies affected source documents, including Security technical report as appropriate. DCR 113-9043231, Interior-Exterior Door Reduction, was evaluated by Security group for AIA impact.
Closed. Updated slides provided to NRC on 8/9/2013. This included revision to Slide 20 and 50, as well as new Slides 56 and 57.
Closed. Response was discussed with NRC at I&C public meeting on August 12, 2013. The DCR descriptions on Slide 52 are correct. The changes occurred in sequence (113-9111705 first and then 113-7010004 second). The Chapter 7 I&C description in Rev. 5 of the FSAR is also correct. Component level connections from SICS to PACS are provided in the current I&C design (included in DCR 113-7010004) as described in Rev. 5 of the FSAR.
Closed. Addressed by RAI 610

Closed. Action was added to PRA audit action list, Action #38.
Closed. Addressed by RAI 605
Closed. Addressed by RAI 606

Chapter 6 (
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Chapter 9 -
Chapter 9 -
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Chapter 7 -
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Group B)
What is the contribution to hydrogen generation from Containment coatings ?
Provide localized concentrations of hydrogen within containment.
Describe the Effects of hydrogen detonation on ducting and other components
For passive autocatalytic recombiners: provide locations; descrfibe extended performance considering contaminants and radiation fields. Discuss results of PHEBUS testing.
Containment heat removal: heat exchanger capability; containment energy following LOCA and MSLB
Control room filter loadings and CO2 removal during extended periods of recirculation
What are the severe accident criteria/guidance provided to the plant operator for opening the MOVs that isolate the IRWST from the core spreading area; what is the basis for the 12-hour power supply to open valves? will it be available when needed?
Describe CVCS/SAHRS isolation valve (open/close) operation post-LOCA
Provide Flow velocities of LOCA-generated jets and impact on equipment functions
What are the effects of minimum containment pressure (e.g., from SAHRS operation) on containment structure?
Group I (Group B)
(AREVA will compile and send a list)
Group II - Group B
(Powers) - What about concrete in the pool? In the aftermath of the Fukushima, concern is with seismic issues that break concrete into small chunks, drop it into the pool and then your pool starts running basic and you get a corrosion there of the aluminum spent fuel racks. First thing that happens, all the carbon dioxide gets precipitated as calcium carbonate. The calcium hydroxide's creating a nice pH 10 local environment and so we're getting corrosion of aluminum rack.
Skillman - How is the ion exchange media selected? Is it the same as for letdown?
Powers - How do you keep chloride out?
Stekar - Is the purification system in operation when fuel is being moved? How is the system normally aligned?
Stetkar - Does CVCS have deboration capabilities?
Brown - Where is two level and temperature measurements described? – Slide 48
Stetkar - Why aren't there tech specs on SFP cooling system? SER states not a design basis event and PRA has not shown FP as risk significant, so tech spec is not needed. But, they did not model it.
Group C
Cyber security Concern (Brown): Question: Design details that assure the information pathways to the Plant Business Networks cannot be altered by external commands or other means should be specified in the design control document.
Anti-dilution (First bullet): Question: Does the anti-dilution logic close the low pressure letdown flow path from the RHR system, are the low pressure letdown valves closed automatically by the anti-dilution signal?

CU failure switch to standby – how long? (Second bullet): Question: How fast does the master to hot-standby swap need to transfer when the master control unit fails, so it does not result in a loss in functionality?
Where are EOCs (electrical optical converters) discussed and how do they provide independence? (Last bullet)
roup B
Revise the GSI-191 technical report to clarify the fuel assembly acceptance criteria and AREVA NP's compliance with the criteria. There are a number of Wallis comments in the meeting summary that are related to this issue.
Prepare a response to Skillman question: does the 2 inch weir near the TSP baskets play a role in the post LOCA sump chemistry?
Prepare a response to Armijo question: what the form and source of the Zinc was?
Prepare a response to Wallis question: how much fiber was used for the thin bed test and what the relationship of the material on Slide 15 is to the material actually used in the tests?
Prepare a response to Wallis question: clarify the calculation of the driving head for the CLB/HLI configuration.
Prepare a response to Banerjee comment: the calculation of 13.4 gm/FA does not appear sufficiently conservative because it is based on average results from four plants.
Prepare a response to Stetkar question on the impact of GSI-191 (debris) on MSLB. Clarify how any debris from a main steam line break (MSLB) or main feedwater line break (MFLB) would affect the IRWST and design basis accident mitigation.
Clarify the design basis of the GSI-191 debris retention system. This will include the following: Functional design basis for the trash racks, baskets, strainers and weirs (i.e., heavy floor, annulus and TSP baskets). This will include water holdup, chemistry, debris transport and impact on ECCS pump NPSH; Design basis for selection of the mesh size relative to differential pressure drop and debris bypass. This will tie testing limits to safety analysis functional requirements.