PMSTPCOL PEmails

From: Wunder, George
Sent: Thursday, July 01, 2010 12:39 PM
To: STPCOL
Subject: FW: Draft Revision to ABWR SC Action item List
Attachments: STPABWR SC Action Items062410.docx

Importance: High

From: Banerjee, Maitri
Sent: Thursday, July 01, 2010 11:06 AM
To: Wunder, George; 'Chappell, Coley'
Cc: Santos, Cayetano
Subject: Draft Revision to ABWR SC Action item List
Importance: High

Please review the attached draft revision attempting to address the 6/23-24 meeting related additions and closures to the list. Please let me know if it captured the changes accurately.

Thanks much for your support.

Maitri

Hearing Identifier: SouthTexas34Public_EX
Email Number: 2523

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Subject: FW: Draft Revision to ABWR SC Action item List
Sent Date: 7/1/2010 12:39:10 PM
Received Date: 7/1/2010 12:39:13 PM
From: Wunder, George

Created By: George.Wunder@nrc.gov

Recipients:
"STPCOL" <STP.COL@nrc.gov>
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ACRS ABWR Subcommittee Action Items

No.	MTG/ date generated	ACTION ITEM	CONTEXT	AREA	LEAD(s)	COMMENTS / ACTION / DISPOSITION	Date Resolved
March 2, 2010 Subcommittee Meeting							
1	3/2/10	Dr. Armijo expressed interest in the fuel related topical reports and the effect of the fuel change (amendment to COL) on the analyses in Chapters 4 and 15. Communicate ACRS desire to review fuel amendment (first reload) application that replaces GE 7 fuel (DCD) to contemporary fuel (Armijo)	Chapter 4	SER	~~NRC~~/ACRS (Abdullahi/ Banerjee)	~~At the 5/20/10 meeting the staff will tell the Subcommittee which topical reports will be presented to them and when. The staff will also answer the question of whether or not the amendment will go before ACRS~~. Potential impact to other areas including Chapters 6 and 15 in addition to Chapter 4. Closed as Follows: A list of fuel amendment related technical/ topical reports has been provided. ACRS (Dr. Armijo lead) to determine which ones the Committee would like to review and the responsible Subcommittee(s). Proposal to be presented at the April P&P. ACRS, with Member Banerjee's lead, will review the TRs.	4/9/10
2	3/2/10	Future presentation of staff and STP to address diesel qualification to 60 degrees C, related occupancy issues and HVAC changes. (Abdel-Khalik)	Chapter 9	COLA/SER	STP/NRO	STP to provide additional discussion on habitability at future Subcommittee meeting on impact of higher temperature (departure T1 2.15-2) when Chapter 9 is presented to the Subcommittee. The issue of diesel qualification was addressed at 3/18/10 meeting satisfactory to the members.	

ACRS ABWR Subcommittee Action Items

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3	3/2/10	Part 21 reports issued on stability analysis post DCD need to be addressed (Abdel-Khalik)	Chapters 4 and 15	COLA/SER	STP/NRO	STP and staff to address at March 18, 2010 meeting. Closed as follows: STPNOC will provide an updated Stability Option III analyses including resolution of the Part 21 issues before fuel load (COM 4.4-3) Staff will follow-up commitment through established processes.	3/18/10
4	3/2/10	Part 21 reports issued post DCD - how staff identifies, captures and addresses Part 21 issues that affect the ABWR design? (Abdel-Khalik)	Chapters?	COLA/SER	NRO	Staff plans to address it at a future ~~the March 18, 2010,~~ meeting. STP is preparing a list of all applicable part 21 items since original design certification and will develop a process to address them in the COLA space. Staff to follow-up and address at a future ACRS meeting. STP provided additional information on 6/8/10 (slides 8 and 9). Justify 1995 cutoff date. Closure pending staff's presentation. Staff presentation at 6/24 did not close it.	
5	3/2/10	Deletion of MSIV closure and scram on hi radiation	Chapters 7 and 19	DCD	-	BWROG Topical Report reviewed and approved by NRC. Closed	3/2/10

ACRS ABWR Subcommittee Action Items

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6	3/2/10	FW line break mitigation – This accident is not described in Chapter 15 (Abdel-Khalik).	Chapter 6	COLA/SER	STP/NRO	The applicant stated that this accident does not affect Chapter 15 doses and that the entirety of the accident and its effects will be discussed in the presentation on Chapter 6. Addressed during 6/24/10 meeting. Refer to Sections 6.2, 6.3 and 15.6.	6/24/10
7	3/2/10	FPGA – address in more detail (e.g., inter-channel communication, determinancy) (Brown)	Chapter 7	COLA/SER	STP/NRO	Staff to discuss at 5/20 meeting. NRO to provide documents to Subcommittee in advance of briefing on this topic as needed.	
8	3/2/10	Address GSI-191 flow blockage (not just for fuel) (Abdel- Khalik)	Chapter 6	COLA/SER	STP/NRO	Staff and STP to discuss this issue during presentation on strainers and downstream effects testing as part of Chapter 6 on 6/24 ~~May 20~~, 2010.	
9	3/2/10	Address how underground release is handled (e.g., H3) in STP design and operational programs. Address if underground piping carrying radioactive liquids run through tunnels, designed for zero leakage, or above/ below the water table. (Ryan)	Chapter 11	COLA/SER	STP	To be discussed at a future meeting.	

ACRS ABWR Subcommittee Action Items

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10	3/2/10	GALE code – impact of the very conservative approach used by the staff and need for uncertainty analysis and use of actual experience data. (Ryan)	Chapter 12	SER	NRO	Dr. Ryan asked if staff has any insights on how results from the new GALE code will compare to results from the old GALE code. What impact is this likely to have on the application? He also expressed concern regarding the effect on the applicant of making significant changes to RGs in the middle of a review? Staff to address this issue generically at a future meeting. Staff discussed the issue at 3/18/10 SC meeting to Committee's satisfaction. The issue is closed.	3/18/10
11	3/2/10	Disparity between staff and STP presentation related to all x/q values being bounded by DCD.	Chapter 15	SER	NRO	Staff acknowledged error in presentation slides. Issue closed.	3/2/10
12	3/2/10	Related to HFE, how specific DAC acceptance criteria be amenable to staff inspection (Bley)	Chapter 18	SER	ACRS	DAC issues will be closed after the issuance of the COL. This means that the Committee will not be able to track the closure of DAC-related technical issues before they are requested to write a letter on the staff's SER. ACRS to receive briefing on digital I&C DAC at 570 ACRS meeting on 3/5/10, and decide if further follow-up is needed.	

ACRS ABWR Subcommittee Action Items

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13	3/2/10	Subcommittee would like a better understanding of how adding dry/wetwell pressure indication on SPDS gives higher assurance of control room capability post accident when SPDS is non-safety related (Stetkar)	Chapter 18	SER	NRO	Staff to provide additional information to ACRS.	
14	3/2/10	EDG qualification to increased ambient temperature (Stetkar)	Chapters 8, 9	FSAR/SER	STP/NRO	STP to discuss at next meeting. This item is closed.	3/18/10
15	3/2/10	Subcommittee would like a better understanding of the basis for SER conclusion related to MCR and RSS and operator ability in switching from a digital MCR to analog RSS (Stetkar)	Chapter 18	SER	NRO	Staff to address this question in the context of the Chapters 7 and 18 discussions on RSS.	
16	3/2/10	May need more aggressive staff review of HFE. Dr. Bonaca indicated that he might have questions on Chapter 18 (human factors engineering) after he reflected on the presentation. (Bonaca)	Chapter 18	SER	ACRS/NRO	Staff to address: Dr. Bonaca referring to questions from Dr. Stetkar above – Treatment of SPDS, core cooling display parameters and their bases. Closed-refer to item 15 above.	Closed
17	3/2/10	Staff needs to formalize handling of DAC	Chapter 18	NRO Programs	ACRS/NRO	Future ACRS Briefings to address. Also see item 12.	

ACRS ABWR Subcommittee Action Items

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18	3/2/10	Related to SER open item 1-3 on aging management, it was noted that detailed technical review is conducted under license renewal process when it should be an issue to consider from the first day on. Dr. Stetkar noted that additional guidance in the area may be helpful.	Chapter 1	Aging managemen t	ACRS/NRO	Staff plans to close this issue in the staff's final SER with no open items.	
19	3/2/10	Occupational doses received from ABWRs and how they compare to occupational doses at other reactors. Can we compare ABWR to other Japanese BWRS as well as to U.S. BWRs? (Ryan)	Chapter 12	ABWR occupational dose	NRO	Staff to address this issue at a future meeting. At 3/18 SC meeting, NRO and STP provided occupational dose data for Japanese and US BWRs since 1993 and the average dose for the Kashiwazaki-Kariwa plants, two of which are ABWR units, from 1997 thru 2002.	3/18/10
March 18, 2010 Subcommittee Meeting							
20	3/18/10	Number of times RCIC is expected to cycle on and off during an 8 hour SBO event (Stetkar)	Chapter 5	RCIC	STP	RCIC qualification and Operator response may be challenged due to repeated cycling (Response-4 times during 8 hr. SBO-STP slide 18 and 19, 6/8/10 ABWR SC-Closed)	6/8/10
21	3/18/10	Rx vessel EOL fluence value and error band (Abdel-Khalik/Armijo)	Chapter 5	Rx Vessel Material	STP	COLA uses DCD value, will be updated once PTLR is finalized/approved	3/18/10

ACRS ABWR Subcommittee Action Items

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22	3/18/10	Ensure all documents (engineering, design, procedures, PTS etc) at the plant use a consistent set of units (either British or Metric). (Abdel-Khalik)	All	All	STP	Too may number of problems and near misses happen when operators and technicians at the plant have to take action based on inconsistent units. Closed per STP slide 8&9 presented at 6/24/10 meeting.	6/24/10
23	3/18/10	Address how K6 and K7 RCS leakage TS limits compare with proposed STP numbers, and justify STP limits, if higher. Also address instrument sensitivity and how it compares with 1 gpm number. (Armijo)	Chapter 5	PTS	STP	Unidentified leakage limit was increased from 1 gpm DCD value to 5 gpm STP TS as STP is not using LBB. Closed per STP slide 10&11 presented at 6/24/10 meeting.	6/24/10
24	3/18/10	Confirm that East transmission lines are capable of supplying all 4 units' safety loads when other lines are lost. (Stetkar/Sieber)	Chapter 8	FSAR	STP	Concern was that given shared transmission right of way and towers, all other lines could be lost under a storm situation. Closed per STP slide 10, ABWR SC meeting 6/8/10.	6/8/10
25	3/18/10	State if there are single or double closing coils on switchyard breakers. (Stetkar)	Chapter 8	FSAR	STP	There may be additional questions if the answer is "single." 6/8/10 ABWR SC – STP slide 11, answer is "single closing coil." Stetkar question-demonstration of capability to reclose upon (single?) failure of DC power under worst switchyard fault to restore one offsite power supply. Closed per STP slide page 12 presented at 6/24/10 meeting.	6/24/10

ACRS ABWR Subcommittee Action Items

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26	3/18/10	Provide switchyard control system backup battery discharge time. (Stetkar/Sieber)	Chapter 8	FSAR	STP	Breakers may not close after LOOP clears if battery exhausted. Batteries sized to operate 10 hrs, expected life 15-20 yrs.- re: STP slide 12 at 6/8/10 ABWR SC.	6/8/10
27	3/18/10	Performance of switching logic under various electrical transients. (Stetkar)	Chapter 8	FSAR	STP	STP may a want to address it beyond COL while detailed design is finalized. STP slides 14-16, 6/8/10 ABWR SC meeting. Stetkar to review and decide if sufficient to close action item.	.
28	3/18/10	NRO to address how the SBO rule requirements are being ensured after operator action time is factored into the scenario with STP specification of “less than 10 minutes CT startup time.” (Stetkar)	Chapter 8	SER	NRO	As STP chose not to do SBO coping analysis, they have to demonstrate that the CTs are capable of powering shutdown buses within 10 minutes of the onset of SBO (10 CFR 50.63 (c)(2)). The scenario involves needed operator action to shed/load buses before breaker can be closed.	
29	3/18/10	Address qualification of submerged 345 KV cables. (Brown)	Chapter 8	FSAR	STP	High water table prompted question on qualified life. STP slide 13, 6/8/10 ABWR SC meeting.	6/8/10

ACRS ABWR Subcommittee Action Items

30	3/18/10	Address when DRAP list will be effectively populated and staff review is completed. How does staff ensure the DRAP list and the process (COLA vs. ITAAC) related to it are acceptable? (Stetkar)	Chapter 17	FSAR/SER	STP/NRO	With evolving plant PRA and DRAP, members were concerned that ITAAC may not be an appropriate closer mechanism for DRAP list. STP slide 20 6/8/10 ABWR SC meeting –List and justifying analysis to be available to ACRS 3rd quarter 2011. Staff to address the ACRS review timing question. At the 6/24/10 ABWR SC meeting the staff discussed their review of evolving DRAP list thru an audit (3rd quarter of 2010 and inspection late 2011. STP/NRO will brief ABWR SC in future, time to be determined.	
31	3/18/10	4.16 kV winding in CTG1 bus could carry two PIP buses together with one safety bus (Stetkar)	Chapter 8	FSAR/SER	STP	STP to confirm at a future meeting. STP slide 17 6/8/10 ABWR SC - confirmed	6/8/10
				May 20, 2010 Subcommittee Meeting			
32	5/20/10	During the presentation on preoperational testing, members Stetkar and Brown noted that they had identified "overlap testing" requirements for various systems but could not identify end-to-end testing requirements.	Chapter 14	FSAR	STP	STP to address at a future meeting. Closed per STP slide page 13 &14presented at 6/24/10 meeting.	6/24/10
33	5/20/10	Dr. Abdel-Khalik wanted to know the steam velocity and how it compares to other plants.	Chapter 14	FSAR	STP	STP to address at a future meeting.	
34	5/20/10	Dr. Abdel-Khalik wants the staff to provide reports submitted regarding flow induced vibration for review by the Committee.	Chapter 14	Tech. Report	NRO		
35	5/20/10	Member Brown raised the issue of cyber-security ITAAC and whether or not it should be included in Chapter 14.	Chapter 14	ITAAC	NRO	NRO staff to address at a future meeting	
36	5/20/10	Dr. Stetkar pointed out a possible inconsistency between the diagram of the backup SCRAM control circuit and the description of that circuit in the text.	Chapter 14	FSAR/SER	STP/NRO	STP and NRO staff to address at a future meeting	
				June 8, 2010 Subcommittee			

ACRS ABWR Subcommittee Action Items

37	6/8/10	Compile ABWR SSAR in a CD and provide to members	-	DCD	ACRS Staff	CD mailed to the members during the week of 6/13/10	Closed
38	6/8/10	STP White paper on PRA screening process for plant changes – provide to members	Chapter 19	FSAR	STP	E-mailed to members on 6/10/10 and a CD provided on 6/11/10.	6/10/10
39	6/8/10	2006 MCR dam failure screening assessment	Chapter 19	FSAR	STP	E-mailed to members on 6/10/10 and a CD provided on 6/11/10.	6/10/10
40	6/8/10	Dam failure risk – Baecher paper, US Bureau of Reclamation data and Army Corps of Engineer report used in SER	Chapter 19	SER	NRO	E-mailed to members on 6/10/10 and a CD provided on 6/11/10	6/10/10
41	6/8/10	DW vent valve failure modes other than failure of fusible links considered in FSAR?	Chapter 19	FSAR	STP		
		June 23-24, 2010 Subcommittee Meeting					
42	6/23	Main turbine missile analysis and maintenance program will be submitted to the NRC 3 years after issuance of COL. ACRS wanted to be informed about staff's decision-making regarding adequacy of program.	Chapter 10	SER	STP/NRO		
43	6/23	Documented basis for adequacy of turbine rotor integrity related to FATT and Cv departure	Chapter 10	FSAR/SER	STP/NRO		
44	6/23	NRO process for review of Tier 2 departures (review if qualifies as T2, not the technical adequacy)	Generic	SER	ACRS	ACRS to decide if they want to raise any issue regarding it.	
45		Provide RAI response regarding redundancy and diversity of turbine overspeed sensors including power supply	Chapter 10	RAI resp.	STP	Member Brown's question	
46	6/24	Identify and justify assumptions regarding ppm Boron in solution used in chemical effects analysis (GSI 191 ECCS Strainer)	Chapter 6	FSAR	STP	Important contributor regarding concentration of Al in SP (ECCS recirculating water)	
47	6/24	Downstream effects: Future briefing on test and analysis (Lic. Condn.) Basis for assuming destroyed fiber (10% of 1 $ft^{3)}$ reaching fuel	Chapter 6 Chapter 4	FSAR/SER	STP/NRO	STP to brief by 4/2011	
48	6/24	Provide three ERI reports used in staff review of containment analysis	Chapter 6	SER	NRO		

ACRS ABWR Subcommittee Action Items

49	6/24	Future briefing on design of vacuum breaker shield	Chapter 6	FSAR	STP	To address loading and height of water level