

## PMSTPCOL PEmails

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**From:** Tonacci, Mark  
**Sent:** Thursday, April 14, 2011 6:39 AM  
**To:** Head, Scott  
**Cc:** STPCOL  
**Subject:** FW: ACRS Open Items for STP  
**Attachments:** STPABWR SC Action Items 040611.docx

FYI - Mark

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**From:** Banerjee, Maitri  
**Sent:** Wednesday, April 13, 2011 9:39 AM  
**To:** Wunder, George; Joseph, Stacy  
**Cc:** Tonacci, Mark  
**Subject:** RE: ACRS Open Items for STP

Please take a look and let me know if it needs any changes before I place it in ADAMS (with the meeting minutes). Please also coordinate with the applicant. Thanks much. Maitri

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**From:** Tonacci, Mark  
**Sent:** Tuesday, April 12, 2011 7:00 AM  
**To:** Banerjee, Maitri  
**Subject:** ACRS Open Items for STP

Maitri,

Can you send me the updated action item list you maintain for us regarding the STP subcommittee actions for follow-up? I will send this around to the PMs and probably STP as well in preparation for our meeting next week.

Thank you,

Mark Tonacci  
Branch Chief  
BWR Branch  
Office of New Reactors

301-415-4045

**Hearing Identifier:** SouthTexas34Public\_EX  
**Email Number:** 2727

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**Subject:** FW: ACRS Open Items for STP  
**Sent Date:** 4/14/2011 6:38:46 AM  
**Received Date:** 4/14/2011 6:38:45 AM  
**From:** Tonacci, Mark

**Created By:** Mark.Tonacci@nrc.gov

**Recipients:**  
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"Head, Scott" <smhead@STPEGS.COM>  
Tracking Status: None

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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	<p>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.</p> <p>Communicate ACRS desire to review fuel amendment (first reload) application that replaces GE 7 fuel (DCD) to contemporary fuel (Armijo)</p>	Chapter 4	SER	ACRS (Abdullahi/ Banerjee)	<p>Potential impact to other areas including Chapters 6 and 15 in addition to Chapter 4.</p> <p>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&amp;P.</p> <p>ACRS, with Member Banerjee's lead, will review the TRs.</p>	4/9/10
2	3/2/10	<p>Future presentation of staff and STP to address diesel qualification to 60 degrees C, related occupancy issues and HVAC changes. (Abdel-Khalik)</p>	Chapter 9	COLA/SER	STP/NRO	<p>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 and the issue of habitability was addressed at 10/20/10 meeting satisfactory to the members.</p>	10/20/10-closed

## ACRS ABWR Subcommittee Action Items

No.	MTG/ date generated	ACTION ITEM	CONTEXT	AREA	LEAD(s)	COMMENTS / ACTION / DISPOSITION	Date Resolved
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	<p>STP and staff to address at March 18, 2010 meeting. Closed as follows:</p> <p>STPNOC will provide an updated Stability Option III analyses including resolution of the Part 21 issues before fuel load (COM 4.4-3)</p> <p>Staff will follow-up commitment through established processes.</p>	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/STP	<p>Staff plans to address it at a future meeting.</p> <p>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) and at 10/20/10 (slides 9 -11, ACRS Action Items). STPNOC made changes to FSAR and TS bases to address 1988 Part 21 on BWR operation with a MSL isolated.</p> <p>Also, how to address it process-wise. The EDO response dated 9/10/10 to ACRS interim letter, dated 8/9/10, committed to develop guidance for addressing Part 21 reports in new reactor licensing process. The staff will update ACRS when such guidance is completed.</p>	STP response is complete for NINA. See item 51.

## ACRS ABWR Subcommittee Action Items

No.	MTG/ date generated	ACTION ITEM	CONTEXT	AREA	LEAD(s)	COMMENTS / ACTION / DISPOSITION	Date Resolved
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
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)  Application of Common Q platform (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.  Based on 5/20 meeting FPGA is closed. Application of Common Q platform, independence and determinancy are being considered by Member Brown.  Based on the applicant's presentation on Chapter 7 at 2/8/11 SC meeting this item is closed.	2/8/11
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, 2010.  This item is part of item 47.	6/24/10

## ACRS ABWR Subcommittee Action Items

No.	MTG/ date generated	ACTION ITEM	CONTEXT	AREA	LEAD(s)	COMMENTS / ACTION / DISPOSITION	Date Resolved
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. Implementation of commitments made in STP RAI response, letters U7-C-STP-NRC-100156, 6/30/10 and U7-C-STP-NRC-090121, 8/26/09, and staff follow-up will be the subject.  AT 10/20/10 ABWR SC - STPNOC slide 12 on Action Items, committed to NEI 08-08A. More details about corrosion resistance of material, coatings, wrappings and types of connection (flanged?) were asked.	3/9/11  Closed per NINA briefing (slide # 7 under Chapter 11)
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

## ACRS ABWR Subcommittee Action Items

No.	MTG/ date generated	ACTION ITEM	CONTEXT	AREA	LEAD(s)	COMMENTS / ACTION / DISPOSITION	Date Resolved
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	<p>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.</p> <p>ACRS to receive briefing on digital I&amp;C DAC at 570 ACRS meeting on 3/5/10, and decide if further follow-up is needed.</p> <p>Also see item 17. At 10/20/10 ABWR SC meeting members decided that this issue will be rolled into the generic ACRS comments on the DAC process. This item was closed.</p>	10/20/10
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	<p>Staff to provide additional information to ACRS.</p> <p>Staff presentation at 10/20/10 ABWR SC meeting. See meeting minutes. This item was closed based on information provided and the application of the HFE process.</p>	10/20/10

## ACRS ABWR Subcommittee Action Items

No.	MTG/ date generated	ACTION ITEM	CONTEXT	AREA	LEAD(s)	COMMENTS / ACTION / DISPOSITION	Date Resolved
14	3/2/10	EDG qualification to increased ambient temperature (Stetkar)	Chapters 8, 9	FSAR/SER	STP/NRO	STP to discuss at next meeting. DG qualified to room temperature and electronics are located in cabinet outside room. 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. Staff presentation at 10/20/10 ABWR SC meeting. See meeting minutes. This item was closed based on information provided and the application of the HFE process through design and operator training.	10/20/10
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	ACRS comments in their 7/24/09 letter applies, plus another letter is expected to be drafted in July 2010. At 10/20/10 ABWR SC meeting members decided that this issue will be rolled into the generic ACRS comments on the DAC process. This item was closed.	10/20/10



## ACRS ABWR Subcommittee Action Items

No.	MTG/ date generated	ACTION ITEM	CONTEXT	AREA	LEAD(s)	COMMENTS / ACTION / DISPOSITION	Date Resolved
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 management	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

## ACRS ABWR Subcommittee Action Items

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
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 many 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

## ACRS ABWR Subcommittee Action Items

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
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 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. See STP slides 7-11 on Chapter 8 at 10/20/10 ABWR SC.	10/20/10-closed
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.  EDO letter, 9/1/10 – discuss at next Chapter 8 briefing	10/20/10 – See NRO slides on Chapter 8, page 4 and backup-closed.

## ACRS ABWR Subcommittee Action Items

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
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 3 <sup>rd</sup> 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 (3 <sup>rd</sup> quarter of 2010 and inspection late 2011. STP/NRO will brief ABWR SC in future, time to be determined.  10/20/10 ABWR SC STP slide 14 – Provided draft DRAP list, staff to provide audit report when available. Future presentation by STP on process with examples.	
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

## ACRS ABWR Subcommittee Action Items

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 &14 presented 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 that have undergone extended uprate.	Chapter 14	FSAR	STP	STP to address at a future meeting. Re: STP slide 15 of 10/20/10 ABWR SC presentation on Action items.	10/20/10 closed
34	5/20/10	Dr. Abdel-Khalik wants the staff to provide reports submitted regarding reactor flow induced vibration for review by the Committee, and a briefing on their review of the predictive analysis.	Chapter 14 Section 3.9.2	Tech. Report	NRO	This technical report is due from STPNOC in later 2010.	
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. Text clarification withdrawn by STP. Re: Slide 16, 17 of 10/20/10 ABWR SC briefing on Action Items.	10/20/10 closed

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 10/20/10	DW flood valve failure modes other than failure of fusible links considered in FSAR. <u>Operating experience? A small leak during normal operation would go undetected thus accumulating water in the lower drywell. Toshiba test results. (Bley)</u>	Chapter 19 Section 9.5.12	FSAR	STP	STP Slide 18, ABWR SC 10/20/10 provided results of a FEMA. Additional question on valve leak during normal operation (10/20/10).	

June 23-24, 2010 Subcommittee Meeting

## ACRS ABWR Subcommittee Action Items

42	6/23/10	Main turbine missile analysis and maintenance program will be submitted to the NRC within 3 years after issuance of COL. ACRS wanted to be informed about staff's decision-making regarding adequacy of program.	Chapter 10, 3	SER	STP/NRO	<p>The turbine design will meet acceptance criteria of SRP 3.5.1.3 and RG 1.115, will meet the minimum requirements in Table 3.5-1, STP Commitment. 3.5-1. Expected to be addressed in next Chapter 10 presentation.</p> <p style="color: red;">NINA slide #12&amp;13 on Chapter 10 at 4/6/11 refers to Toshiba ULTR-0008-P, R1, 9/10 and ULTR-0009-P, 9/10 – Members did not find the reports to be of good quality. It lacks plant specific analysis. NINA will consider adding to the STP corrective action program. Staff does not plan to act on these reports.</p>
43	6/23/10	Documented basis for adequacy of turbine rotor integrity related to FATT and Cv departure	Chapter 10	FSAR/SER	STP/NRO	<p>EDO letter, 9/1/10 – discuss resolution at future briefing.</p> <p style="color: red;">Closed per NINA slide #16&amp;17 and staff slide #11-14 on Chapter 10 at 4/6/11 ABWR SC meeting</p> <p style="color: red; text-align: right;">4/6/11</p>
44	6/23/10	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.

## ACRS ABWR Subcommittee Action Items

45	6/23/10, ACRS Letter 8/9/10	Provide RAI response regarding redundancy and diversity of turbine overspeed sensors including power supply – ITAAC very general in scope  Staff to provide RAI response with or before the SER.	Chapter 10	RAI resp.	STP/NRO	EDO letter 9/10/10 – Resolution will be presented with final SE with no OI.  Update provided by STP at 2/8/11 ABWR SC meeting. NINA will submit additional details on redundancy and diversity and on ITAAC.  <span style="color: red;">NINA letter dated 2/21/11 provided to members. Item closed per NINA slide #11 on Chapter 10 at 4/6/11 ABWR SC meeting.</span>	<span style="color: red;">4/6/11</span>
46	6/24/10	Identify and justify assumptions regarding ppm Boron in solution used in chemical effects analysis (GSI 191 ECCS Strainer)	Chapter 6	FSAR	STP/NRO	Important contributor regarding concentration of AI in SP (ECCS recirculating water). Closed per NINA slide#11/staff briefing at 3/8/11 ABWR SC meeting	3/8/11
47	6/24/10	a. Downstream effects: Future briefing on test and analysis (Lic. Condn.)  b. Basis for assuming destroyed fiber (10% of 1 ft <sup>3</sup> ) reaching fuel	Chapter 6 Chapter 4	FSAR/SER	STP/NRO	At 3/8/11 ABWR SC meeting NINA noted that the assumption of 10% has been changed to 100% (Chapter 6 Slide#12)	3/8/11-Item 47b is closed
48	6/24/10	Provide three ERI reports used in staff review of containment analysis	Chapter 6	SER	NRO	Provided by NRO and included in background documents CD for 3/8/11 ABWR SC meeting to members.	Closed
49	6/24/10	Future briefing on design of vacuum breaker shield	Chapter 6	FSAR	STP	To address loading and height of water level. Closed per NINA briefing (Slides# 13-17) at 3/8/11 SC meeting.	3/8/11



## ACRS ABWR Subcommittee Action Items

50	6/24/10, EDO letter 9/10/10	Presentation on Toshiba Technical reports - strainer design and pool swell analyses	Chapter 6	FSAR	STP/NRO	NRO and ACRS staff to schedule. Closed per staff briefing at 3/8/11 SC meeting	3/8/11
51	EDO letter 9/10/10	Staff to update ACRS after developing guidance on the process of addressing Part 21 reports in new reactor licensing.	ACRS Letter dated 8/9/10	COLA/DC review process	NRO	NRO to advise ACRS staff when such briefing can be scheduled. <b>Briefing scheduled for 4/21/11.</b>	
52	EDO letter 9/10/10	Staff to brief ACRS on Long term cooling	SRM dated 5/8/08	COLA	NRO	NRO and ACRS staff to schedule	
October 20, 2010 Subcommittee Meeting							
53	10/20/10	NRO to submit for ACRS review technical report on reactor flow induced vibration	Section 3.9.2	SER	NRO	This technical report is due from STPNOC in later 2010.	Closed, duplicate of 34
54	10/20/10	Basis for STP being bounded by the DCD wind loading and design basis hurricane, i.e., basis for 3 second gust wind loading and the 100 year history record of hurricane within 50 miles of site (Stetkar).	Section 3.3 Chapter 2	FSAR	STP	STPNOC to address at 11/30 ABWR SC meeting. See Slide 41	Closed
55	10/20/10	Basis for the use of Regulatory Guide 1.76 Region II parameters	Section 3.3 Chapter 2	FSAR	STP	STPNOC to address at 11/30 ABWR SC meeting. See Slides 42-44	Closed
56	10/20/10	Confirm rail/truck large equipment access bay door in reactor building is water tight. (Stetkar)	Section 3.4 Chapter 2	FSAR	STP	STPNOC to address at 11/30 ABWR SC meeting. See Slides 45	Closed

## ACRS ABWR Subcommittee Action Items

57	10/20/10	Confirm levels of water-proofing of foundation of RSW pump house. (Stetkar)	Section 3H.6.6.4	FSAR	STP	STPNOC to address at 11/30 ABWR SC meeting. See Slides 46	Closed
58	10/20/10	Clarify various water level parameters discussed in Chapter 3 and how they were derived. (Stetkar)	Section 3.4	FSAR	STP	STPNOC to clarify FSAR (11/30/10 meeting slide 40)	
59	10/20/10	A value of $1 \times 10^{-2}$ per year per plant was chosen as a conservative value for the product of strike and damage probabilities- provide basis.	Section 3.5, Chapter 10	FSAR	STP	STP to address at next Chapter 10 briefing.  4/6/11 ABWR SC – NINA slides 14&15 discussed a simple model approach. Member Stetkar comment – Fold final turbine missile analysis to provide plant specific result.	Status?
60	10/20/10	Types of commercial aircraft and frequency considered. (Stetkar)	Sections 3.5, 2.3	FSAR	STP	RAI response dated 9/14/09 provided to members.	10/25/10
61	10/20/10	Justify deviation from SRP related to wave height.	Chapter 2	FSAR	STP	Open item in SER	
62	10/20/10	The basis and application of the 30 minute response time upon a single passive failure of the RSW piping and how the analysis justify a 30 day supply for the UHS while accounting for the pipe failure. (Stetkar)	Section 9.2.5.5.2	FSAR	STP		
63	10/20/10	The basis for approx. 17 meter RSW pump NPSH and how it was calculated (specifically at end of 30d).	Section 9.2.15.2	FSAR	STP		

## ACRS ABWR Subcommittee Action Items

64	10/20/10	Generation of spurious signals in digital I&C cabinets containing only fiber optic cables due to heat related to fire in the room. (Stetkar)	Section 9.5.1	FSAR	NRO		
November 30, 2010 Subcommittee Meeting							
65	11/30/10	How MCR breach width derived from Froehlich's equation used in the FLDWAV model compare with the value used in confirmatory BREACH model	Section 2.4.4	FSAR/SER	STPNOC		
66	11/30/10	Comparison of staff's confirmatory SLOSH and STPNOC's ADCIRC at Gulf Coast	Section 2.4.4	FSAR/SER	STPNOC/NRO		The requested information provided by NRO staff was e-mailed to the members present at the 11/30 ABWR SC meeting on 12/1/10.
February 8, 2011 Subcommittee Meeting							
67	2/8/11	Add to FSAR a statement regarding hardware for the watchdog timer that is independent and diverse from FPGA	Chapter 7	FSAR	NINA	Closed per NINA presentation slide #4 on ACRS Action items at 3/9/11 ABWR SC Meeting	3/9/11
68	2/8/11	a. Provide qualification test of Common Q platform at 70% loading. b. Confirm FSAR App. 7D maintains design to <70% loading.	Chapter 7	FSAR	NINA	Closed per NINA presentation on ACRS Action item #68 at 4/6/11 ABWR SC Meeting, and review of qualification document by ACRS members (Brown, Bley, Stetkar)	4/6/11
69	2/8/11	During Chapter 16 presentation to ABWR SC (3/9/11) address bypass of combination of sensors and channels of ELCS.	Chapter 7		NINA	Closed per NINA presentation slides #6-12 on Chapter 16 at 3/9/11 ABWR SC Meeting	3/9/11

## ACRS ABWR Subcommittee Action Items

March 8, 2011 Subcommittee Meeting

70	3/8/11	NPSH for RCIC at 100 C (vice 77C) – number used for vapor pressure head needs to be justified (Stetkar)	Chapter 5, Table 5.4-1a	FSAR	NINA	
71	3/8/11	RCIC pump qualification w.r.t internal components and quality of lube water (Stetkar)	Chapter 5	FSAR	NINA	
72	3/8/11	How hydrodynamic load definition are developed and evaluated for ECCS strainers also at 100C? (Wallis)	Chapters 6, 3	FSAR	NINA	STP to cover this at Chapter 3 meeting
73	3/8/11	Does analysis for Japanese plant bound thin bed effects? (Wallis)	Chapter 6	FSAR	NINA	
74	3/8/11	Justify use of Nukon fiberglass fiber vs. textile fiber, and as a surrogate. (Wallis)	Chapter 6	FSAR/SER	NINA/NRO	
75	3/8/11	Al-oxy-hydroxide an appropriate surrogate for ZnOxide? Experimental verification? (Wallis)	Chapter 6	FSAR	NINA/NRO	
76	3/8/11	Will STP use Zn injection? (Armijo)	Chapter 6	FSAR	NINA	
77	3/8/11	Justify use of partial length fuel assembly in test (Abdel-Khalik, Wallis)	Chapter 6	FSAR	NINA	Analyze post COL test data and determine need for future ACRS briefing
78	3/8/11	Justify use of unheated test	Chapter 6	FSAR	NINA	See item 77 above

## ACRS ABWR Subcommittee Action Items

79	3/8/11	NRC-accepted protocol for addition of debris-introduction of debris in different sequence may provide worse results (Wallis)	Chapter 6	FSAR/SER	NINA/NRO	See item 77 above
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80	3/8/11	RE: pressure drop modeling of the debris bed in test acceptance criteria, justify use of 2 power of flow rate in test acceptance criteria vs. use of other exponent such as 1.2. (Wallis)	Chapter 6	FSAR	NINA	
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81	3/8/11	Multiple tests at same condition to demonstrate margin.	Chapter 6	FSAR	NINA	
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82	3/8/11	Justify shorter transient loop time in test vs. actual debris deposition time. (Wallis)	Chapter 6	FSAR	NINA	
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83	3/8/11	Justification that 1.7 factor is bounding given uneven distribution of debris at lower plenum, downward flow of HPCF thru core (Wallis)	Chapter 6	FSAR	NINA	Need to show margin
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84	3/8/11	Parametric study of K-factor vs. flow rate (AK, Wallis)	Chapter 6	FSAR	NINA	
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March 9, 2011 Subcommittee Meeting

85	3/9/11	STP Cyber Security program (safeguards document)	Chapter13 COLA Part 8	FSAR/COLA	ACRS	Members to review program document provided by NRO and decide need for briefing
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## ACRS ABWR Subcommittee Action Items

April 6, 2011 Subcommittee Meeting

86	4/6/11	Monoblock rotor-consider SRP revision (Abdel-Khalik)	Chapter 10	SRP	NRO	To address changing technology related to FATT and Cv energy at minimum operating temperature
87	4/6/11	FSAR 10.2.2.4, Turbine Overspeed (OS) Protection System- address primary OS sensor failure (Brown)	Chapter 10	FSAR	NINA	NINA may revise RAI response
88	4/6/11	SAM does not seem to include NSR SSCs going into RAP following PRA or Expert Panel (Stetkar)	Chapter 14	FSAR	NINA	NINA Plans to address at 4/21/11 ABWR SC