WBN2Public Resource

From: Clark, Mark Steven [msclark0@tva.gov]
Sent: Tuesday, August 16, 2011 4:25 PM

To: Hilmes, Steven A; Crouch, William D; Bryan, Robert H Jr; Smith, James D

Cc: Poole, Justin

Subject: 20110729 Open Item List Master TVA Update 08-16-11.docx **Attachments**: 20110729 Open Item List Master TVA Update 08-16-11.docx

All:

Attached is the open items list. In accordance with the feedback from Norbert and Rossnyev, I closed the items on the list that were for Common Q PAMS and WINCISE. This reduced the open items to 11. Of these there are a number that should be able to be closed. I've highlighted these in dark green. These items either have simple responses that have been submitted, or have been added to the SSER Appendix HH by the NRC.

Regards,

Steve

Hearing Identifier: Watts_Bar_2_Operating_LA_Public

Email Number: 664

Mail Envelope Properties (7AB41F650F76BD44B5BCAB7C0CCABFAF1816A3AA)

Subject: 20110729 Open Item List Master TVA Update 08-16-11.docx

 Sent Date:
 8/16/2011 4:25:05 PM

 Received Date:
 8/16/2011 4:25:15 PM

 From:
 Clark, Mark Steven

Created By: msclark0@tva.gov

Recipients:

"Poole, Justin" < Justin. Poole@nrc.gov>

Tracking Status: None

"Hilmes, Steven A" <sahilmes@tva.gov>

Tracking Status: None

"Crouch, William D" <wdcrouch@tva.gov>

Tracking Status: None

"Bryan, Robert H Jr" <rhbryan@tva.gov>

Tracking Status: None

"Smith, James D" <jdsmith@tva.gov>

Tracking Status: None

Post Office: TVANUCXVS2.main.tva.gov

Files Size Date & Time

MESSAGE 473 8/16/2011 4:25:15 PM

20110729 Open Item List Master TVA Update 08-16-11.docx 583541

Options

Priority: Standard
Return Notification: No
Reply Requested: No
Sensitivity: Normal

Expiration Date: Recipients Received:

No. SE Sec.	FSAR Sec.	NRC POC	Issue	TVA Response(s)	Response Acceptable Y/N	Status/ Current Actions	Resolution Path	RAI No. & Date	RAI Resp. Date	Comments
001 All	All) (1	The Watts Bar Nuclear Plant FSAR red-line for Unit 2 (Agency	12/15/2009 Presentation Slides	1. Y	Closed	Closed	EICB RAI	3/12/2010	NNC 11/19/09: The FSAR contains
002 All	All)	Are there I&C components and systems that have changed to a	12/15/2009 Presentation Slides	2. Y	Closed	Closed	EICB RAI	3/12/2010	NNC 11/19/09: The FSAR contains
003 All	All),E	Because a digital I&C platform can be configured and programmed	12/15/2009 Presentation Slides	3. Y	Closed	Closed	EICB RAI	3/12/2010	NNC 11/19/09: The FSAR contains
004 All	All) ~.\E	Please identify the information that will be submitted for each	Responder: Webb 1/13/10 Public Meeting	4. Y	Closed	Closed	EICB RAI	January 13, 2010	NNC 11/19/09: LIC-110 Rev. 1 Section
005 7.1.3		_ o _Ω [By letter date February 28, 2008 (Agencywide Documents Access	Responder: Craig/Webb	5. Y	Closed	Closed	EICB RAI	TVA Letter dated	
006		J - 0	Amendment 95 of the FSAR, Chapter 7.3, shows that change 7.3-1	By letter dated February 5, 2010: TVA provided the Unit 2	6. Y	Closed	Closed	EICB RAI	TVA Letter dated	NNC: WCAP-12096 Rev. 7
007 7.1.3		ا ڪتا	The setpoint methodology has been reviewed and approved by the	TVA Letter Dated March 12, 2010 (Enclosure 1, Item No. 7	7. Y	Closed	Closed	EICB RAI	TVA Letter dated	TVA to provide Rev. 8 of the Unit 1
008 7.3			There are several staff positions that provide guidance on setpoint	TVA Letter Dated March 12, 2010 (Enclosure 1, Item No. 8	8. Y	Closed	Closed	EICB RAI	TVA Letter dated	
009 7.3.2	5.6,	- a (Change 7.3-2, identified in Watts Bar Nuclear Plant FSAR red-line	TVA Letter Dated March 12, 2010 (Enclosure 1, Item No. 9	9. Y	Closed	Closed	EICB RAI	3/12/10,	
010 7.3	7.3	∫ a □	The original SER on Watts Bar (NUREG-0847) documents that the	TVA Letter Dated March 12, 2010 (Enclosure 1, Item No. 1)) 10. Y	Closed	Closed	EICB RAI	3/12/10,	
011 7.3.2	5.6,	- a b	NUREG-0847 Supplement No. 2 Section 7.3.2 includes an	TVA Letter Dated March 12, 2010 (Enclosure 1, Item No. 1	1 11. Y	Closed	Closed	EICB RAI	ML101680598,	
012 7.4	7.4		The original SER on Watts Bar (NUREG-0847) documents that the	TVA Letter Dated March 12, 2010 (Enclosure 1, Item No. 1)	2 12. Y	Closed	Closed	EICB RAI	TVA Letter dated	
013 7.1.3		ر پ	Chapter 7 and Chapter 16 of Amendment 95 to the FSAR do not	TVA Letter Dated March 12, 2010 (Enclosure 1, Item No. 1)	3 13. Y	Closed	Closed	EICB RAI	TVA Letter dated	TS have been docketed.
014 All	All) ~\E	Provide the justification for any hardware and software changes	Date: 4/27/10	14. Y	Closed	Closed	NRC Meeting	TVA Letter dated	
015			Perify that the refurbishment of the power range nuclear	Date: 4/27/10	15. Y	Closed	Closed	NRC Meeting	TVA Letter dated	
016		~ O	dentify the precedents in license amendment requests (LARs), if	Date: 4/27/10	16. Y	Closed	Closed	NRC Meeting	TVA Letter dated	
017 7.3.1	7.3.1,	a	dentify precedents in LARs, if any, for the solid state protection	Date: 4/27/10	17. Y	Closed	Closed	NRC Meeting	TVA Letter dated	
018			dentify any changes made to any instrumentation and control	Date: 4/27/10	18. Y	Closed	Closed	NRC Meeting	TVA Letter dated	
019		~ o/	/erify that the containment purge isolation radiation monitor is the	Date: 4/27/10	19. Y	Closed	Closed	NRC Meeting	TVA Letter dated	
020		_∪ ₀ F	Provide environmental qualification information pursuant to Section	Date: 4/27/10	20. Y	Closed	Closed	NRC Meeting	TVA Letter dated	NNC 4/30/10: SRP Section 7.0 states:
021	7.3	∪ U _F	For the Foxboro Spec 200 platform, identify any changes in	Date: 5/25/10	21. Y	Closed	Closed	NRC Meeting	TVA Letter dated	The resolution of this item will be
022 7.3.2	5.6,	- D a /	/erify the auxiliary feedwater control refurbishment results in a like-	Date: 4/27/10	22. Y	Closed	Closed	NRC Meeting	TVA Letter dated	
023		_ ∪ [©] F	Provide environmental qualification (10 CFR 50.49) information for	Date: 4/27/10	23. Y	Closed	Closed	NRC Meeting	TVA Letter dated	NNC 4/30/10: SRP Section 7.0 states:
024		U U F	Provide a schedule by the January 13, 2010, meeting for providing	During the January 13, 2010 meeting, TVA presented a	24. Y	Closed	Closed	NRC Meeting	N/A – Request for	NNC 4/30/10: Carte to address
025 7.5.2	7.5.1	~ o .	For the containment radiation high radiation monitor, verify that the	Date: 4/27/10	25. Y	Closed	Closed	NRC Meeting	ML101230248,	
026		_ o _β F	Provide environmental qualification (10 CFR 50.49) information for	Date: 4/27/10	26. Y	Closed	Closed	NRC Meeting	TVA Letter dated	NNC 4/30/10: SRP Section 7.0 states:
027 7.7.1		U U F	For Foxboro I/A provide information regarding safety/non-safety-	Date: 4/27/10	27. Y	Closed	Closed	NRC Meeting	TVA Letter dated	
028		U U U F	For the turbine control AEH system, verify that the refurbishment	Responder: Mark Scansen	28. Y	Closed	Closed	NRC Meeting	TVA Letter dated	
029		U P	For the rod control system, verify that the refurbishment results in a	Date: 4/27/10	29. Y	Closed	Closed	NRC Meeting	TVA Letter dated	
030		_ o _Ω F	Regarding the refurbishment of I&C equipment, identify any	Responder: Clark	30. Y	Closed	Closed	NRC Meeting	TVA Letter dated	
031			For the rod position indication system (CERPI), provide information	Date: 4/27/10	31. Y	Closed	Closed	NRC Meeting	TVA Letter dated	CERPI is non-safety related.
032		U P	For the process computer, need to consider cyber security issues	Date: 4/27/10	32. Y	Closed	Closed	NRC Meeting	TVA Letter dated	EICB will no longer consider cyber
033				Date: 4/27/10	33. Y	Closed	Closed	NRC Meeting	TVA Letter dated	The loose parts monitoring system is
034		_ U	2/4/2010	Responder: TVA	34. Y	Closed	Closed	N/A	TVA Letter dated	
034.		F	Chapter 7.1 – Introduction		35. Y	Closed	Closed	N/A	N/A	
034.			Chapter 7.2 - Reactor Trip System		36. Y	Closed	Closed	N/A	N/A	
034. 7.3	7.3	a 🗆	Chapter 7.3 – ESFAS		37. Y	Closed	Closed	N/A	N/A	
034. 7.5.1	7.5.2	_ ≥ a	Chapter 7.5 - Instrumentation Systems Important to Safety		38. Y	Closed	Closed	N/A	N/A	Closed
034. 7.5.1	7.5.2	ב ט ב	Chapter 7.6 - All Other Systems Required for Safety		39. Y	Closed	Closed	N/A	N/A	Closed
034.			Chapter 7.7 Control Systems		40. Y	Closed	Closed	N/A	N/A	
035		<u></u> ∽ ∽ . ₂	2/18/2010	Responder: Clark	41. Y	Closed	Closed	RAI No. 1	TVA Letter dated	LIC-110 Section 6.2.2 states: "Design
036 7.5.2	7.5.1	U U F	February 18, 2010	Date: 5/25/10	42. Y	Closed	Closed	NRC Meeting		NNC: Unit 2 FSAR Section 7.5.1, "Post
037 7.5.1	7.5.2	_≥ ¤2	2/18/2010	Responder: Clark Date: 5/25/10	43. Y	Closed	Closed	N/A	TVA Letter dated	FSAR Amendment 100 provides

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No.	SE Sec.	FSAR Sec.	NRC POC	Issue	TVA Response(s)	Response Acceptable Y/N	Status/ Current Actions	Resolution Path	RAI No. & Date	RAI Resp. Date	Comments
038	7.5.1.	7.5.2	ه ≥ ر	2/18/2010	Responder: Clark Date: 5/25/10	44. Y	Closed	Closed	EICB RAI	TVA Letter dated	The slides presented at the December
039			_ U	January 13, 2010	Responder: Clark Date: 5/25/10	45. Y	Closed	Closed	EICB RAI	FSAR amendment	The equation for the calculation of the
040) U	January 13, 2010	Responder: Clark Date: 5/25/10	46. Y	Closed	Closed	EICB RAI EICB RAI	FSAR amendment	The equation for the calculation of the
041	7.5.2	7.5.1)	2/19/2010	Responder: WEC	47. N	Closed	Closed	NRC Meeting	TVA Letter dated	See also Open Item Nos. 226 & 270.
042	All	All)	February 25, 2010: Telecom	Date: 5/25/10	48. Y	Closed	Closed	EICB RAI	TVA Letter dated	The drawing provided did not have the
043	7.5.2	7.5.1))	2/19/2010	Responder: WEC	49. N	Closed	Closed	EICB RAI	TVA Letter dated	NNC 8/25/10: A CQ PAMS ISG6
044	7.5.2	7.5.1	_ O	February 25, 2010	Date: 5/25/10	50. Y	Closed	Closed	EICB RAI	TVA Letter dated	
045)	February 25, 2010	Date: 5/25/10	51. Y	Closed	Closed	EICB RAI	TVA Letter dated	
046))	February 25, 2010	Date: 5/25/10	52. Y	Closed	Closed	N/A – Request for	N/A	
047	7.5.2	7.5.1	C	4/8/2010	Responder: WEC/Hilmes Date: 5/25/10	53. Y	Closed	Closed	EICB RAI	TVA Letter dated	
048	7.5.2	7.5.1	_ O	April 8, 2010	Date: 5/25/10	54. Y	Closed	Closed	EICB RAI	TVA Letter dated	
049	7.5.2	7.5.1	_O	4/8/2010	Responder: WEC Date: 5/25/10	55. Y	Closed	Closed	EICB RAI	TVA Letter dated	
050	7.5.2	7.5.1	_ O	4/8/2010	Responder: WEC Date: 5/25/10	56. N	Closed	Closed	EICB RAI	TVA Letter dated	NNC 11/18/10: SysRS Rev. 2 contains
051				April 15, 2010	Date: 5/25/10	57. Y	Closed	Closed	N/A	N/A	Review addressed by another Open
052	7.5.2	7.5.1	∵ ∽ .	April 19, 2010	Date: 5/25/10	58. Y	Closed	Closed	RAI No. 12		
053	7.5.2	7.5.1	∵ ∽ .	April 19, 2010	Date: 5/25/10	59. Y	Closed	Closed	RAI No. 13		
054	7.5.2	7.5.1	∵ ∽ .	4/19/2010	Responder: Slifer/Clark Date: 5/25/10	60. Y	Closed	Closed	RAI No. 14	TVA Letter dated	
055	7.5.2	7.5.1	∵ ∽ .	4/19/2010	Responder: Slifer/Clark Date: 5/25/10	61. Y	Closed	Closed	RAI No. 15	TVA Letter dated	
056			∵ S .	April 19, 2010	Date: 5/25/10	62. Y	Closed	Closed	RAI No. 16	TVA Letter dated	Sorrento Radiation Monitoring
_	7.5.2	7.5.1	∵ ∽ .	4/19/2010	Responder: TVA I&C Staff Date: 5/25/10	63. Y	Closed	Closed	RAI No. 17	TVA Letter dated	
058	7.5.0	7.5			Date: 5/25/10	64. Y	Closed	Closed	RAI No. 18	TVA Letter dated	
059	7.5.2	7.5.1			Date:	65. Y	Closed	Closed	RAI No. 19	TVA Letter dated	
060	7.5.2	7.5.1			Date: 5/25/10	66. Y	Closed	Closed	N/A	N/A	Addressed by Open Item No. 47
061	7.5.2	7.5.1			Date: 5/25/10	67. Y	Closed	Closed	N/A	N/A	Addressed by Open Item No. 48
062	7.5.2	7.5.1			Date: 5/25/10		Closed	Closed	N/A	N/A	Addressed by Open Item No. 49
	7.5.2				Date: 5/25/10		Closed	Closed	N/A	N/A	Addressed by Open Item No. 50
064	7.5.2	7.5.1		By letter dated March 12, 2010 TVA stated that the target submittal			Closed	Closed		TVA Letter dated	
065	7.5.2	7.5.1		By letter dated March 12, 2010 TVA stated that the target submittal	•		Closed	Closed	-	TVA Letter dated	
066	7.5.2	7.5.1		By letter dated March 12, 2010 TVA stated that the target submittal			Closed	Closed	N/A - No question	TVA Letter dated	
067	7.5.2	7.5.1		By letter dated March 12, 2010 TVA stated that the target submittal		73. Y	Closed – See ML111150287	Closed		TVA Letter dated	
068	7.5.2	7.5.1		By letter dated March 12, 2010 TVA stated that the target submittal		74. Y	Closed – See ML111150287	Closed	•	TVA Letter dated	
069	7.5.2	7.5.1		By letter dated March 12, 2010 TVA stated that the target submittal		75. Y	Closed – See ML111150287	Closed	N/A - No question		
070	7.5.2	7.5.1		By letter dated March 12, 2010 TVA stated that the target submittal	•		Closed	Closed		TVA Letter dated	NNC 11/23/10: The dues date in this
071	7.5.2	7.5.1		By letter dated March 12, 2010 TVA stated that the target submittal			Closed	Closed	N/A - No question		NNC 11/23/10: The dues date in this
072	7.5.2	7.5.1	-	By letter dated March 12, 2010 TVA stated that the target submittal		-	Closed	Closed	N/A - No question	-	
073	7.5.2	7.5.1		By letter dated March 12, 2010 TVA stated that the target submittal			Closed	Closed	N/A - No question		
	7.5.2	7.5.1		By letter dated March 12, 2010 TVA stated that the target submittal		80. Y	Closed – See ML111150287	Closed	N/A - No question		Rev. 4 will be available for the NRC
075	7.5.2	7.5.1		By letter dated March 12, 2010 TVA stated that the target submittal			Closed	Closed	N/A - No question		
076	7.5.2	7.5.1		By letter dated March 12, 2010 TVA stated that the target submittal	· ·		Closed	Closed	N/A - No question		
077	7.5.2	7.5.1		By letter dated March 12, 2010 TVA stated that the target submittal			Closed	Closed	N/A - No question	TVA Letter dated	
078	1.0.2	, ,0.1		4/26/2010			Closed	Closed	EICB RAI	TVA Letter dated	
079							Closed	Closed	EICB RAI	TVA Letter dated	Reviewed under Item 154
080							Closed	Closed	RAI No. 2	TVA Letter dated	The state of the s
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No.	SE Sec.	FSAR Sec.	NRC POC	Issue	TVA Response(s)	Response Acceptable Y/N	Status/ Current Actions	Resolution Path	RAI No. & Date	RAI Resp. Date	Comments
081	7.5.2	7.5.1	_0	5/6/2010	Responder: Merten/WEC	87. N	Open	Closed	EICB RAI	TVA Letter dated	NNC 1/5/11: See Also Open Item No.
082	7.5.2	7.5.1	_O	5/6/2010	Responder: WEC Date: 6/18/10	88. N	Closed	Closed	EICB RAI	TVA Letter dated	NNC 11/18/10: See also Open Item No.
083	7.5.2	7.5.1	_O	May 6, 2010	Date: 6/18/10	89. Y	Closed	Closed	EICB RAI	TVA Letter dated	
084	7.5.2	7.5.1	_O	May 6, 2010	Date: 6/18/10	90. Y	Closed	Closed	EICB RAI	TVA Letter dated	
085	7.5.2	7.5.1	_O	5/6/2010	Responder: WEC	91. N	Closed	Closed	EICB RAI		
086	7.5.2	7.5.1	_O	5/6/2010	Responder: WEC Date: 5/24/10	92. N	Open	Closed	EICB RAI	TVA Letter dated	NNC 1/6/11: See Also Open Item No.81
087	7.5.2	7.5.1	_ · · · · · ·	May 6, 2010	Date: 5/24/10	93. Y	Closed	Closed	RAI No. 20	TVA Letter dated	
088	7.5.2	7.5.1	_ s .	May 6, 2010	Date: 5/24/10	94. Y	Closed	Closed	RAI No. 21	TVA Letter dated	
089			_O	5/6/2010	Responder: Clark	95. Y	Closed	Closed	EICB RAI	TVA Letter dated	NNC: Docketed response states that
090			_O	5/6/2010	Responder: Clark Date: 5/25/10	96. Y	Closed	Closed	EICB RAI	TVA Letter dated	
091	7.4	7.4	a	May 20, 2010	Date: 5/25/10	97. Y	Closed	Closed	EICB RAI No.1	TVA Letter dated	
092			<u> </u> С	5/20/2010	Responder: Hilmes	98. Y	Open	Closed			Continuous review as items are added
093			ت پ	May 20, 2010	Date: 5/25/10	99. Y	Closed	Closed	N/A	N/A	Will be reviewed under item 154
094				5/20/2010	Responder: Clark Date: 5/25/10	100. Y	Closed	Closed	N/A	N/A	Information was found in FSAR
095	7.8.1,	XX	a D	May 20, 2010	Date:	101. Y	Closed	Closed	EICB RAI No. 2	TVA Letter dated	
096	7.7.5	XX	a D	5/20/2010	Responder:	102. Y	Closed	Closed	EICB RAI No.3	TVA Letter dated	
097	7.4.2	7.4	_□ æ	May 20, 2010	Date:	103. Y	Closed	Closed	EICB RAI No.4	TVA Letter dated	
098	7.4.2	7.4	a 🗅	May 25, 2010	Date:	104. Y	Closed	Closed	EICB RAI No.5	TVA Letter dated	
099			а В	April 12, 2010	Date:	105. Y	Closed	Closed			Closed to Item 129
100			υO	5/20/2010	Responder: WEC	106. Y	Closed	Closed	N/A - No question	N/A	
102			υO	May 24, 2010	Date: 5/24/10	107. Y	Closed	Closed	N/A	TVA Letter dated	Request for schedule not information.
103	7.4	7.4		5/27/2010	Responder: Ayala Date: 5/27/10	108. Y	Closed	Closed	EICB RAI No.1		Submittal date is based on current
104	7.4	7.4	_ □ _ œ	5/27/2010	Responder: Merten Date: 5/27/10	109. Y	Closed	Closed	EICB RAI No.1	TVA Letter dated	Submittal date is based on current
105				April 29, 2010	Date:	110. Y	Closed	Closed	N/A	N/A	Will be reviewed under item 154.
106				May 6, 2010	Date: 5/25/10	111. Y	Closed	Closed	RAI No. 9	TVA Letter dated	
107					Date: 5/28/10	112. Y	Closed	Closed	RAI No. 22	TVA Letter dated	
108				May 6, 2010	Date: 5/25/10	113. Y	Closed	Closed	N/A	N/A	Will be reviewed under Ol#154
109.	7.8	XX	а 🗅 -	5/6/2010	Responder: N/A	_	Closed	Closed	N/A	N/A	
109.				5/6/2010	Responder: N/A		Closed	Closed	N/A	N/A	Duplicate of another open Item.
110				May 6, 2010	Date:	_	Closed	Closed	N/A	N/A	Information was found.
111				May 6, 2010	Date: 5/28/10		Closed	Closed	N/A	TVA Letter dated	Request to help find, not a request for
112				June 1, 2010	Date:		Closed	Closed	N/A	N/A	Information was received
113				6/1/2010	Responder: Clark	119. Y	Closed	Closed	EICB RAI	TVA Letter dated	
114	7.2	7.2		6/1/2010	Responder: WEC		Close	Closed	EICB RAI	TVA Letter dated	
115			_O	2/25/2010	Responder: Clark	-	Closed	Closed	EICB RAI	TVA Letter dated	
116				6/3/2010	Responder: WEC		Closed	Closed	EICB RAI	TVA Letter dated	Letter sent to Westinghouse requesting
117	7.1	7.1		6/3/2010	Responder: Hilmes		Closed	Closed	EICB RAI	TVA Letter dated	
118	7.4	7.4		6/8/2010	Responder: Merten		Closed	Closed	EICB RAI No.1		Submittal date is based on current
119				June 10, 2010	Date:		Closed	Closed	RAI No. 23	TVA Letter dated	
120				5/6/2010	Responder: Hilmes/Merten/Costley		Closed	Closed	EICB RAI	TVA Letter dated	
121				5/6/2010	Responder: Webb/Webber		Closed	Closed	EICB RAI	TVA Letter dated	
122				June 14, 2010	Date:		Closed	Closed		N/A	
	7.7.3	7.4.1,					Closed	Closed	ML101720589,	TVA Letter dated	
0		,						000		201101 44104	

No. SE			NRC Issue	TVA Response(s)	Response Acceptable Y/N	Status/ Current Actions	Resolution Path	RAI No. & Date RAI Resp. Date	Comments
124 7.7.	5 XX	(- (G/14/2010	Responder:	130. Y	Closed	Closed	ML101720589, Item TVA Letter dated	
125 7.7.	8 7.7.1.	.12 - 2	G/14/2010	Responder:	131. Y	Closed	Closed	ML101720589, Item TVA Letter dated	
126 7.8	7.8)	·	Date:	132. Y	Closed	Closed	ML101720589, Item TVA Letter dated	
127 7.2	7.2	2	^O 6/16/2010	Responder: WEC/Clark	133. Y	Closed	Closed	EICB RAI TVA Letter dated	
128 7.2	7.2	2	^O 6/18/2010	Responder: WEC Drake /TVA Craig	134. Y	Closed	Closed	EICB RAI TVA Letter dated	Track through SE open item
129		,	<u> </u>	Responder: WEC	135. Y	Closed	Closed	N/A TVA Letter dated	
130		,	<u> </u>	Responder: Clark	136. Y	Closed	Closed	N/A TVA Letter dated	
131		,	<u> </u>	Responder: Clark	137. Y	Closed	Closed	N/A TVA Letter dated	
132		,	<u> </u>	Responder: Clark	138. Y	Closed	Closed	N/A TVA Letter dated	
133		,	<u> </u>	Responder: Clark	139. Y	Closed	Closed	TVA Letter dated	
134		,	<u> </u>	Responder: Clark	140. Y	Closed	Closed	TVA Letter dated	
135 7.3.	1 7.3.	.1 -	G/30/2010	Responder: Clark	141. Y	Closed	Closed	RAI not necessary TVA Letter dated	
136 7.3.	2, 7.4, 5	5.6, -°	G/30/2010	Responder: Clark	142. Y	Closed	Closed	RAI not necessary TVA Letter dated	
137		,	Several WBN2 PAMS documents contain a table titled, "Document	Responder: WEC	143. Y	Closed	Closed	ML101650255, Item TVA Letter dated	
138		,	By letter dated February 3, 2010, Westinghouse informed TVA that	Responder: WEC	144. N	Closed – See ML111150287	Closed	ML101650255, Item	See also No. 82.
139		,	The WBN2 PAMS System Requirements Specification (WBN2	Responder: WEC	145. Y	Closed	Closed	ML101650255, Item TVA Letter dated	WBN2 PAMS System Requirements
140		,	The first requirement in the WBN2 PAMS SysRS (i.e., R2.2-1)	Responder: Clark	146. N	Closed	Closed	ML101650255, Item TVA Letter dated	WBN2 PAMS System Requirements
141		,	Deleted by DORL	Date:	147. Y	Closed	Closed	ML101650255, Item	WBN2 PAMS System Requirements
142		`	The applicable regulatory guidance for reviewing the WBN2 PAMS	Responder: WEC	148. N	Closed	Closed	ML101650255, Item	WBN2 PAMS System Requirements
143		`	The WBN2 PAMS Software Requirements Specification (WBN2	Responder: WEC	149. N	Closed	Closed	ML101650255, Item	WBN2 PAMS System Requirements
144		`	The WBN2 PAMS Software Requirements Specification (WBN2	Responder: WEC	150. N	Closed	Closed	ML101650255, Item TVA Letter dated	WBN2 PAMS Software Requirements
145		`	The WBN2 PAMS System Design Specification (WBN2 PAMS	Responder: WEC	151. N	Closed	Closed	ML101650255, Item	WBN2 PAMS System Design
146		`	- O 6/17/2010	Responder:	152. Y	Closed	Closed	ML101650255, Item	PAMS System Requirements
147		`	- ^C 6/17/2010	Responder:	153. Y	Closed	Closed	ML101650255, Item	PAMS System Requirements
148		`	6/17/2010	Responder:	154. Y	Closed	Closed	ML101650255, Item	PAMS System Requirements
149 7.2	7.2	2	FSAR Section 7.1.1.2(2), Overtemperature delta T and	Responder: Tindell	155. Y	Close	Closed	ML101720589, Item TVA Letter dated	
150 7.2	7.2	2	Many of the changes were based on the Westinghouse document	Responder: Clark	156. Y	Close	Closed	ML101720589, Item TVA Letter dated	
151 7.2	7.2	2	Provide the EDCR 52378 and 54504 which discusses the basis for	Responder: Clark	157. Y	Close	Closed	ML101720589, Item TVA Letter dated	
152 7.2	7.2	2		Responder: Merten/Clark	158. Y	Close	Closed	ML101720589, Item TVA Letter dated	
153 7.2		2	FSAR section 7.2.1.1.7 added the reference to FSAR section	Responder: Craig/Webb	159. Y	Close	Closed	ML101720589, Item TVA Letter dated	
154 7.2	7.2	2		Responder: Craig/Webb	160. Y	Closed	Closed	ML101720589, Item TVA Letter dated	EICB RAI ML102861885 sent to DORL
155 7.2	2 7.2	2		Date:	161. Y	Closed	Closed	ML101720589, Item	
156 7.2		2		Responder: WEC	162. Y	Closed	Closed	ML101720589, Item TVA Letter dated	Response on hold pending
157 7.2		2		Responder: Tindell		Close	Closed	ML101720589, Item TVA Letter dated	
158 7.2	2 7.2	2	T.	Responder: Tindell	+	Closed	Closed	ML101720589, Item TVA Letter dated	
159 7.2		_		Responder: Craig		Close	Closed	ML101720589, Item TVA Letter dated	
160 7.2				Responder: Tindell		Close	Closed	ML101720589, Item TVA Letter dated	
161 7.2				Responder: Clark		Closed	Closed	ML101720589, Item TVA Letter dated	
162 7.2		_		Responder: Tindell	+	Closed	Closed	ML101720589, Item TVA Letter dated	
163 7.2				Date:		Closed	Closed	ML101720589, Item	
164 7.2				Responder: Perkins		Closed	Closed		Item No. 8 sent to DORL
165 7.2				Responder: Clark		Closed	Closed	ML101720589, Item TVA Letter dated	
166 7.2		_		·		Closed	Closed	ML101720589, Item TVA Letter dated	
1.2	1.2		Changes to Form Society Fig. 2.2.2.2.2.2.0 and addition business of the			10.000	J.10004		

No. SE			NRC POC Issue	TVA Response(s)	Response Acceptable Y/N	Status/ Current Actions	Resolution Path	RAI No. & Date	RAI Resp. Date	Comments
167 7.2	2 7	7.2	FSAR section 7.2.2.4, provide an analysis or reference to chapter	Responder: Clark	173. Y	Close	Closed	ML101720589, Item	TVA Letter dated	
168 7.2		7.2		Responder: Clark		Close	Closed	ML101720589, Item		
169				Responder: Clark	175. Y	Closed	Closed	, , , , , , , , , , , , , , , , , , , ,		
170			60	Responder: Clark	176. Y	Closed	Closed			
171 7.2	2 7	7.2		Responder: Craig	177. Y	Closed	Closed	EICB RAI	TVA Letter dated	Closed to SE Open Item
172				Responder: Craig	178. Y	Closed	Closed	EICB RAI		·
173 7.1	1 7	7.1		Responder: Craig/Webb/Powers	179. Y	Closed	Closed	EICB RAI		
174				Responder: Hilmes/Craig	180. Y	Closed	Closed	EICB RAI		
175				Responder:	181. Y	Closed	Closed	EICB RAI		
176 7.1	1 7	7.1	6/28/2010	Responder: Craig/Webb	182. Y	Closed	Closed	EICB RAI		
177 7.5.	2. 7.	.5.1		Responder: Clark	183. Y	Closed	Closed	N/A	TVA Letter dated	RAI not required
178 7.5.	2. 7.	.5.1	~ ≥ ^{rg} 7/15/2010	Responder: Clark	184. Y	Closed	Closed	N/A	TVA Letter dated	RAI not required
179			An emphasis is placed on traceability in System Requirements	Responder: WEC	185. Y	Closed	Closed	N/A – Closed to	NA	
180			The SRP, BTP 7-14, Section B.3.3.1 states that Regulatory Guide	Responder: WEC	186. Y	Closed	Closed	N/A – Closed to	NA	
181			An emphasis is placed on traceability in System Requirements	Responder: WEC	187. Y	Closed	Closed	N/A - Closed to	NA	
182			Characteristics that the SRP states that a Software Requirements	Responder: WEC	188. Y	Closed	Closed	N/A – Closed to	NA	
183			~ 7/15/2010	Responder: WEC	189. Y	Closed	Closed	EICB RAI	TVA Letter dated	
184			^{→ 0} 7/15/2010	Responder: WEC	190. Y	Closed	Closed	N/A – Closed to	N/A	
185			[○] 7/15/2010	Responder: WEC	191. N	Closed	Closed	EICB RAI		
186 7.7	.8 7.7.	7.1.12	□ [®] 7/15/2010	Responder: Perkins/Clark	192. Y	Closed	Closed	EICB RAI No.6	TVA Letter dated	
187			By letter dated June 18, 2010, TVA docketed responses to NRC	Responder: Merten	193. N	Closed	Closed	ML101970033, Item	TVA Letter dated	Are these connections already
188			By letter dated June 30, 2010, TVA docketed, "Tennessee Valley	Responder: Clark	194. Y	Closed	Closed	ML101970033, Item	TVA Letter dated	
189	7.6	.6.7	~ · 7/20/2010	Responder: Clark	195. Y	Closed	Closed	RAI No. 3	TVA Letter dated	
190 7.9	9		FSAR Table 7.1-1 states: "Regulatory Guide 1.133, May 1981	Responder: Clark	196. Y	Closed	Closed	RAI No. 4	TVA Letter dated	Closed to OI-331.
191 7.9	9		NUREG-0800 Chapter 7, Section 7.9, "Data Communication	Responder: Jimmie Perkins	197. Y	Closed	Closed	ML10197016, Item	TVA Letter dated	
192 7.5.	1. 7.	.5.2	→ The NRC Staff is using SRP (NUREG-0800) Chapter 7 Section	Responder: Clark	198. Y	Closed	Closed	Item No. 1 sent to	TVA Letter dated	EICB RAI ML1028618855 sent to
193 7.5.	1. 7.5	.5.2	→ Control of the WBU2 FSAR, Section 7.5.2, "Plant Computer System,"	Responder: Clark	199. Y	Closed	Closed	Item No. 2 sent to	TVA Letter dated	EICB RAI ML1028618855 sent to
194 7.5.	1. 7.5	5.2.1	The WBU2 FSAR Section 7.5.2.1, "Safety Parameter Display	Responder: Costley/Norman	200. Y	Closed	Closed	Item No. 3 sent to	TVA Letter dated	EICB RAI ML1028618855 sent to
195 7.5.	1. 7.5	5.2.2	→	Responder: Costley/Norman	201. Y	Closed	Closed	Item No. 4 sent to	TVA Letter dated	EICB RAI ML1028618855 sent to
196 7.5.	1. 7.5	5.2.2	→ Bypassed and Inoperable Status Indication (BISI)	Responder: Costley/Norman	202. Y	Closed	Closed	Item No. 5 sent to	TVA Letter dated	EICB RAI ML1028618855 sent to
197			✓ Open Item 197 was never issued.		203. Y	Closed	Closed			
198 7.5.	1. 7.5	5.2.2	→ SRP Section 7.5, Subsection III, "Review Procedures" states:	Responder: Costley/Norman	204. Y	Closed	Closed	Item No. 6 sent to	TVA Letter dated	EICB RAI ML1028618855 sent to
199 7.5.	1. 7.5	5.2.3	The WBU2 FSAR Section 7.5.2.3, "Technical Support Center and	Responder: Costley/Norman	205. Y	Closed	Closed	Item No. 7 sent to	TVA Letter dated	Related SE Section 7.5.5.3 EICB RAI
200 7.2	2			Responder: Clark	206. Y	Closed	Closed	EICB RAI	TVA Letter dated	
201 7.7.	1. 7.7	7.11		Responder: Webb	207. Y	Closed	Closed	EICB RAI	TVA Letter dated	
202 7.5	.2			Responder: WEC	208. N	Open	Closed	EICB RAI	TVA Letter dated	NNC 1/5/11: See Also Open Item No.
203 7.5.	1. 7.5	.5.2		Responder: Clark	209. Y	Closed	Closed	EICB RAI	TVA Letter dated	EICB RAI ML102861885 sent to DORL
204 7.5.	1. 7.5	.5.2		Responder: Costley/Norman	210. Y	Closed	Closed	EICB RAI	TVA Letter dated	EICB RAI ML102861885 sent to DORL
205				Responder: Clark	211. Y	Closed	Closed	EICB RAI	TVA Letter dated	Question B related to prior NRC
206 7.5.	1. 7.	.5.2		Responder: Clark	212. Y	Closed	Closed	EICB RAI	TVA Letter dated	EICB RAI ML102861885 sent to DORL
207						Closed	Closed			
208 7.5.	2. 7.5	.5.1		Responder: Clark	214. Y	Closed	Closed	EICB RAI	TVA Letter dated	EICB RAI ML102861885 sent to DORL
209 7.5.	2. 7.	.5.1	~ ≥ ^{rg} 7/27/2010	Responder: Clark	215. Y	Closed	Closed	EICB RAI	TVA Letter dated	EICB RAI ML102861885 sent to DORL

No.	SE Sec.	FSAR Sec.	NRC POC	Issue	TVA Response(s)	Response Acceptable Y/N	Status/ Current Actions	Resolution Path	RAI No. & Date	RAI Resp. Date	Comments
210	7.5.2.	7.5.1			Responder: Clark	216. Y	Closed	Closed	EICB RAI	TVA Letter dated	EICB RAI ML102861885 sent to DORL
211	7.5.1.		_O	7/27/2010	Responder: Clark	217. Y	Closed	Closed	EICB RAI	TVA Letter dated	Relates to SE Sections:
212	7.5.2		_ O	7/27/2010	Responder: WEC	218. N	Open	Closed	EICB RAI		
213	7.5.2				Responder: WEC	219. N	Closed	Closed	EICB RAI		
214))	7/27/2010	Responder: WEC	220. Y	Closed	Closed	EICB RAI	TVA Letter dated	
215)	7/29/2010	Responder: WEC	221. Y	Closed	Closed			
216	7.5.1.	7.5.2			Responder: Clark	222. Y	Closed	Closed	EICB RAI	TVA Letter dated	EICB RAI ML102861885 sent to DORL
217					Responder: Clark	223. Y	Close	Closed	EICB RAI	TVA Letter dated	
218					Responder: Clark	224. Y	Closed	Closed	EICB RAI	TVA Letter dated	
219				8/4/2010	Responder: TVA Licensing	225. Y	Closed	Closed	EICB RAI		
220					Responder: Ayala	226. Y	Closed	Closed	EICB RAI	TVA Letter dated	
221	7.7.1.	7.7.1.3		8/4/2010	Responder: Trelease	227. Y	Closed	Closed	EICB RAI	TVA Letter dated	EICB RAI ML102861885 sent to DORL
222					Responder: Clark	228. Y	Close	Closed	EICB RAI	TVA Letter dated	
223					Responder: Clark	229. Y	Closed	Closed	EICB RAI		
224	7.5.1.	7.5.2				230. Y	Closed	Closed	EICB RAI		EICB RAI ML102861885 sent to DORL
225			_ U	8/4/2010	Responder: Scansen	231. Y	Close	Closed	EICB RAI	TVA Letter dated	
226					Responder: TVA Licensing	232. Y	Closed	Closed	N/A – Information	TVA Letter dated	See also Open Item Nos. 41 & 270.
227					Responder: Clark	233. Y	Close	Closed	EICB RAI	TVA Letter dated	
228					Responder: Clark	234. Y	Closed	Closed	EICB RAI	TVA Letter dated	
229					Responder: Clark	235. Y	Closed	Closed	EICB RAI	TVA Letter dated	
230					Responder: Webb	236. Y	Closed	Closed	EICB RAI	TVA Letter dated	
231					Responder: Clark	237. Y	Closed	Closed	EICB RAI	TVA Letter dated	
232					Responder: Clark	238. Y	Closed	Closed	RAI No. 5	TVA Letter dated	
233					Responder: Clark	239. Y	Closed	Closed	EICB RAI	TVA Letter dated	
234			_O		•	240. Y	Closed	Closed	N/A – Duplicate	N/A	
235			_ O		1			Closed		N/A	
236					Responder: Clark	242. Y	Close	Closed	EICB RAI	TVA Letter dated	
237					Responder: Clark	243. Y	Closed	Closed	EICB RAI	TVA Letter dated	
238					2.4	244. Y	Closed	Closed	N/A – Duplicate	N/A	
239						245. Y	Closed	Closed	N/A – Meeting	N/A	
240						246. Y	Close	Closed	MI102910008	TVA Letter dated	
241					2202	247. Y	Closed	Closed	RAI No. 10	TVA Letter dated	
242						248. Y		Closed		TVA Letter dated	
243						249. Y		Closed		N/A	
244					·	250. N	Closed	Closed	EICB RAI	Response is	LIC-101 Rev. 3 Appendix B Section 4,
245					·	251. N		Closed	EICB RAI		LIC-101 Rev. 3 Appendix B Section 4,
246						252. N	Closed	Closed	EICB RAI	Response is	LIC-101 Rev. 3 Appendix B Section 4,
247						253. Y		Closed	EICB RAI	Response is	LIC-101 Rev. 3 Appendix B Section 4,
248					·	254. Y	Closed	Closed		Response is	LIC-101 Rev. 3 Appendix B Section 4,
249					·	255. Y	Closed	Closed			LIC-101 Rev. 3 Appendix B Section 4,
250					Responder: WEC	256. N	Closed	Closed			LIC-101 Rev. 3 Appendix B Section 4,
251					Responder: WEC	257. N	Closed	Closed			LIC-101 Rev. 3 Appendix B Section 4,
252			O	8/8/2010	Responder: WEC	258. N	Closed	Closed			LIC-101 Rev. 3 Appendix B Section 4,

No.	SE Sec.	FSAR Sec.	NRC POC	Issue	TVA Response(s)	Response Acceptable Y/N	Status/ Current Actions	Resolution Path	RAI No. & Date	RAI Resp. Date	Comments
253			$-\circ$	8/8/2010	Responder: Clark	259. Y	Closed	Closed		TVA Letter dated	Related to Open Item no. 83.
254			-0	8/10/2010	Responder: WEC	260. Y	Closed	Closed	N/A - Request to	TVA Letter dated	
255			O	8/10/2010	Responder: WEC	261. Y	Closed	Closed	N/A - Request to	TVA Letter dated	
256			_O	8/10/2010	Responder: WEC	262. Y	Closed	Closed	N/A - Request to	TVA Letter dated	
257			_O	8/10/2010	Responder: WEC	263. Y	Closed	Closed	N/A - Request to	N/A	
258			O	8/10/2010	Responder: WEC	264. Y	Closed	Closed	N/A - Request to	N/A	
259			-0	8/10/2010	Responder: WEC	265. Y	Closed	Closed	N/A - Request to	TVA Letter dated	
260			$-\circ$	8/10/2010	Responder: WEC	266. Y	Closed	Closed	N/A - Request to	N/A	
261					Responder: WEC	267. Y	Closed	Closed	N/A – Closed to	TVA Letter dated	LIC-110 Rev. 1 Section 6.2.2 states:
262					Responder: WEC	268. Y	Closed	Closed	N/A - Request to	N/A	
263			$-\circ$	8/11/2010	Responder: WEC	269. Y	Closed	Closed	ML101650255, Item		
264			$-\circ$	8/11/2010	Responder: WEC	270. Y	Closed	Closed	ML101650255, Item		
265					Responder: WEC	271. Y	Closed	Closed	ML101650255, Item		
266			O	8/11/2010	Responder: Webb/Webber	272. Y	Closed	Closed		TVA Letter dated	
267			-0	8/11/2010	Responder: WEC	273. Y	Closed	Closed			
268			_O	8/19/2010	Responder: WEC	274. N	Closed	Closed			
269) Д	8/20/2010	Responder: NRC	275. Y	Closed	Closed	N/A	N/A	
270			O	8/23/2010	Responder: Clark	276. Y	Closed	Closed			See also Open Item Nod. 41 & 245.
271			$-\circ$	8/23/2010	Responder: WEC	277. Y	Closed	Closed	N/A – Closed to	NA	
272	7.5.2.	7.5.1	_ ≥ a	8/26/2010	Responder: Clark	278. Y	Closed	Closed	EICB RAI	TVA Letter dated	EICB RAI ML102861885 sent to DORL
273	7.5.2.	7.5.1	ە ≥ ر	8/26/2010	Responder: Clark	279. Y	Closed	Closed	EICB RAI	TVA Letter dated	EICB RAI ML102861885 sent to DORL
274.			∵ ∽ .	8/26/2010	Responder: Stockton	280. Y	Closed	Closed	RAI No. 6	TVA Letter dated	
274.	7.5.2.	7.5.1			Responder: Clark	281. Y	Closed	Closed	EICB RAI	TVA Letter dated	EICB RAI ML102861885 sent to DORL
275					Responder: Clark	282. Y	Closed	Closed	Not Required	N/A	
276	7.6	7.6			Responder: Webb	283. Y	Closed	Closed	EICB RAI	TVA Letter dated	
277	7.6	7.6.3			Responder: Clark	284. Y	Close	Closed	EICB RAI	TVA Letter dated	
278	7.6	7.6.6			Responder: Trelease	285. Y	Close	Closed	EICB RAI	TVA Letter dated	
279	7.6	7.6.6			Responder: Mather	286. Y	Close	Closed	EICB RAI	TVA Letter dated	
280	7.6	7.6.6			Responder: Trelease	287. Y	Closed	Closed	EICB RAI	TVA Letter dated	
281	7.6	7.6.8			Responder: Webb	288.	Closed	Closed	EICB RAI	TVA Letter dated	
282	7.6	7.6.9			Responder: Trelease	289. Y	Close	Closed	EICB RAI	TVA Letter dated	
283	7.7.5	XX			Responder: Clark	290. Y	Closed	Closed	EICB RAI No.13	TVA Letter dated	This item is a follow-up question to item
284	7.7.3	7.4.1				+	Closed	Closed		TVA Letter dated	This item is a follow-up question to item
285	7.3.3	7.3			•	+	Closed	Closed	-	TVA Letter dated	This item is a follow-up question to item
286	7.7.3	1			-		Closed	Closed		TVA Letter dated	
287	7.3	7.3-1					Closed	Closed	ML102390538, Item	Response	
288	7.3				·	+	Closed	Closed	EICB RAI		
289							Closed	Closed	RAI No. 24	TVA Letter dated	
290		7.7			·	297. Y	Closed	Closed	N/A	N/A	This item is a duplicate of item 291.
291		7.7					Closed	Closed		TVA Letter dated	
292	7.2.5	7.2					Closed	Closed	EICB RAI	TVA Letter dated	
293		7.2.2.3.5			Responder: Craig	300. Y	Closed	Closed	EICB RAI	TVA Letter dated	EICB RAI ML102861885 sent to DORL
294	7.3	7.3.1.1.1	a	9/9/2010	Responder: Elton	301. Y	Closed	Closed	ML102390538, Item	Response	

No.	SE Sec.	FSAR Sec.	NRC POC Issue	TVA Response(s)	Response Acceptable Y/N	Status/ Current Actions	Resolution Path	RAI No. & Date	RAI Resp. Date	Comments
295	7.3	7.3.1.1.2	2 - ¹⁰ 9/9/2010 R	Responder: Elton	302. Y	Closed	Closed	ML102390538, Item	Response	
296	7.3	7.3.1.2.1	1 - ⁰ 9/9/2010 R	Responder: Elton	303. Y	Closed	Closed	ML102390538, Item	Response	
297	7.3	7.3.1.2.2	2 ^{- 0 0} 9/9/2010 R	Responder: Elton	304. Y	Closed	Closed	ML102390538, Item	Response	
298	7.3	XX	- □ · □ 9/9/2010 F	Responder: Clark	305. Y	Closed	Closed	ML102390538, Item	Response	
299			Provide Common Q Software Requirements Specification Post A	Attachment 41 of the 10/5 letter contains the Common Q	306. Y	Closed	Closed		TVA Letter dated	
300			Need Radiation Monitoring System Description/Design Criteria	Responder: Temples/Mather	307. Y	Closed	Closed	RAI No. 25	TVA Letter	
301			1.TVA is requested to address the consequences of software	Responder: WEC/Davies/Clark	308. Y	Closed	Closed	RAI No. 11	TVA Letter dated	Note 1:
302	7.5.2.	7.5.1	C≥ ^{cq} 09/17/2010 R	Responder: Tindell	309. Y	Closed	Closed	EICB RAI	TVA Letter dated	EICB RAI ML102861885 sent to DORL
303	7.5.2.	7.5.1	C≥ ^{cq} 09/17/2010 R	Responder: Tindell	310. Y	Closed	Closed	EICB RAI	TVA Letter dated	EICB RAI ML102861885 sent to DORL
304	7.5.2.	7.5.1	C≥ ¹⁰ 09/17/2010	Responder: Tindell	311. Y	Closed	Closed	EICB RAI	TVA Letter dated	EICB RAI ML102861885 sent to DORL
305	7.5.2.	7.5.1	□ ≥ ™ 09/17/2010 □ R	Responder: Tindell	312. Y	Closed	Closed	EICB RAI	TVA Letter dated	EICB RAI ML102861885 sent to DORL
306	7.1	7.1	FSAR amendment 100, page 7.1-12 provides the definition of	Responder: Hilmes	313. Y	Closed	Closed	EICB RAI	TVA Letter dated	
307	7.1	7.1	(1) FSAR amendment 100, Section 7.1, page 7.1-12, definition of	Responder: Hilmes	314. Y	Closed	Closed	EICB RAI	TVA Letter dated	
308	7.1	7.1	(1) FSAR Amendment 100, Section 7.1, page 7.1-13, definition of	Responder: Hilmes	315. Y	Closed	Closed	EICB RAI	TVA Letter dated	
309	7.1	7.1.2.1.9	9 (1) FSAR amendment 100, Page 7.1-14, Westinghouse setpoint R	Responder: Hilmes	316. Y	Closed	Closed	EICB RAI	TVA Letter dated	
310	7.1	7.1.2.1.9	9 (1) FSAR amendment 100, Page 7.1-14, TVA setpoint	Responder: Hilmes	317. Y	Closed	Closed	EICB RAI	TVA Letter dated	
311	7.1	7.1		Responder: Hilmes	318. Y	Closed	Closed	EICB RAI	TVA Letter dated	
312		7.0		Responder: Stockton	319. Y	Close	Closed	EICB RAI	TVA Letter dated	
313	7.7.8	7.7.1.12	EDCR 52408 (installation of AMSAC in Unit 2) states that Design R	Responder: Ayala	320. Y	Closed	Closed	EICB RAI No.18	TVA Letter dated	
314	7.3	7.3			321. Y	Closed	Closed	EICB RAI No. 19	TVA Letter dated	Related to OI 10
315	7.5.3	7.5.3	IE Bulletin 79-27 required that emergency operating procedures to R	Responder: S. Smith (TVA Operations)	322. Y	Close	Closed	EICB RAI	TVA Letter dated	
316	7.5.2.	7.5	TVA has provided various documents in support of RM-1000 high R	Responder: Temples/Mather	323. Y	Closed	Closed	RAI No. 26		
317	7.5.2.	7.5	TVA has provided a proprietary and a non-proprietary version of R	Responder: Temples	324. Y	Closed	Closed	RAI No. 27	TVA Letter dated	
318	7.5.2.	7.5		Responder: Temples	325. Y	Closed	Closed	RAI No. 28	TVA Letter dated	
319	7.5.2.	7.5	TVA provided System Verification Test Results 04507007-1TR	Responder: Temples	326. Y	Closed	Closed	RAI No. 29	TVA Letter dated	
320				Responder: Clark	327. Y	Closed	Closed	N/A	N/A	Duplicate of item 156
321				Responder: Clark		Closed	Closed	N/A	N/A	Duplicate of OI# 157
322		7.7.1.11	Section 7.7.1.11 will be added to FSAR Amendment 101 to provide R			Closed	Closed			
324			Per the NRC reviewer, the BISI calculation is not required to be			Closed	Closed			
325				Responder: TVA Startup Olson		Closed	Closed			Closed to open item ?
326				Responder: Webb		Closed	Closed		TVA Letter dated	
328	7.5.2.	7.5		Responder: Temples	333. Y	Closed	Closed	RAI No. 30	TVA Letter dated	
329	7.6.1	7.6.7				Closed	Closed	RAI No. 1	TVA Letter dated	
330	7.3	7.3		Responder: Hilmes/Faulkner	+	Closed	Closed	EICB RAI No.20	Item 7, TVA letter	
331	7.6.1	7.6.7	As a follow up of OI 190, Staff has reviewed the proprietary version R			Closed	Closed	RAI No. 8	TVA Letter dated	Follow-up of OI-190.
	7.5.2.	7.5.1	<u> ≥ 10/26/2010</u>			Closed	Closed	ML103000105 Item		EICB RAI ML103000105 sent to DORL
	7.5.2.	7.5.1	□ 10/27/2010			Closed	Closed	ML103000105 Item		EICB RAI ML103000105 sent to DORL
334	7	7		Responder: Stockton		Closed	Closed		N/A	RAI not required because the figure is
335	7.6.1	7.6.7		Responder: WEC	340. Y	Closed	Closed	RAI# 1, EICB letter	TVA letter, dated	We need to confirm when MEEB when
-	7.5.2.	7.5		Responder: GA		Closed	Closed			
	7.5.2.	7.5				Closed	Closed			
	7.5.2.	7.5				Closed	Closed			Note: Item to be added to Section 3.10
339	7.5.2.	7.5	In the Qualification Test Report 04508905-QR, the licensee	As agreed to with the reviewer, Attachment 1 contains the	344. Y	Closed	Closed	RAI #5 letter dated	FSAR amend 103	Note: Item to be added to Section 3.10

Agci	ida idi v	VCCINI	I CICCO	oni wilii i va (i&C Chapter / Only)	1au 10202.uuu	,^			Оре	ii iteilis to be	Resolved for SER Approval
No.	SE Sec.	FSAR Sec.	NRC POC	Issue	TVA Response(s)	Response Acceptable Y/N	Status/ Current Actions	Resolution Path	RAI No. & Date	RAI Resp. Date	Comments
341	7.5.2.	7.5	~ S .	FSAR Tables 3.10 list seismically qualified equipment. However,	A review of WBN Unit 2 FSAR amendment 102 chapters	345. Y	Closed	Closed	RAI #1 letter dated	FSAR amend 103	
342	7.5.2.	7.5	∵ S .	Please confirm that RM-1000 monitors and the associated	The RM-1000 containment high range radiation monitors are	346. Y	Closed	Closed			
343	7.5.2.	7.5	∵ S .	Seismic RRS in the 04508905-QR report Figures 3-2 and 3-3	(1) The cause of the difference between the RRS and TRS	347. Y	Closed	Closed			
344	7.6.6	?	n	Unit 1 SE discussed in Section 7.6.5, "Valve Power Lockout".	(a) In accordance with 0PDP-6, "Locked Valve/Breaker	348. Y	Close	Closed			Close based on TVA letter dated
345	7.5.2.	7.5	∵ S .	Provide the normal temperatures and expected periods of high/low	RM-1000 in a NIM Bin was Tested at 39°F for 72 Hrs and	349. Y	Closed	Closed		Response	
347	7.5.2.	7.5	∵ ∽ .	Qualification report 04508905-1SP does not address EMI/RFI	Qualification report 04038903-7SP, Qualification Basis for	350. Y	Closed	Closed			
348	7.5.2.	7.5	∵ S .	Qualification report 04508905-2SP does not address EMI/RFI	Qualification report 04038903-7SP, Qualification Basis for	351. Y	Closed	Closed			
350	7.5.2.	7.5	∵ S .	The seismic required response spectra (RRS) is shown in Figures	The RM-1000 was seismically tested in a NIM Bin and the	352. Y	Closed	Closed	RAI # 9, letter	FSAR amend 103	Note: Item to be added to Section 3.10
351	7.5.2.	7.5	∵ S .	The replacement schedule for the components that have a	The replacement schedules stated in 04508905-1SP,	353. Y	Closed	Closed			
352	7.5.2.	7.5	∵ S .	Please clarify how many RM-1000 radiation monitors are being	The total number of RM-1000 units procured under MR	354. Y	Closed	Closed			
354	7.5.2.	7.5	∵ S .	RG 1.180 endorsed the guidance of IEEE-1050-1996 with	(1) The WBN Unit 2 grounding system design is in	355. Y	Closed	Closed			The grounding specification used by
355	7.5.2.	7.5	∵ S .	Staff has not found the stated exclusion zone for EMI/RFI	Cautions and distance limitations for WBN Unit 1 legacy	356. Y	Closed	Closed			
356	7.5.2.	7.5	∵ ∽ .	The attachment number refers to your February 25, 2011 letter.	The loss of the RM-3 output (current to frequency (I/F)	357. Y	Closed	Closed		Closed by TVA	
357	7.5.2.	7.5	∵ S .	In Attachment 5, Qualification Test Report Supplement, RM-1000	Attachment 8 contains GA-ESI qualification report	358. Y	Closed	Closed		Closed by TVA	
358	7.5.2.	7.5	∵ S .	The attachment numbers refer to your February 25, 2011 letter. In	An incomplete response was inadvertently submitted in TVA	359. Y	Closed	Closed		Closed by TVA	
360			٥	In order for staff to review the acceptability of the Incore	(a) The Watts Bar Unit 2 In-core Instrumentation System	360.	Closed	Closed			
362	7.6.1	7.6.7	е D :	OI #331 requested TVA to provide information regarding how the	TVA committed to provide a letter on the docket (targeted is	361.	Closed	Closed			
364	7.5.2.	7.5	_ O	On 5/6/2010 (See Open Item No. 81) the NRC Staff requested an	TVA Partial Response to NRC Request	362. N	Closed	Closed			NNC 4/125/2011: See Open Item No.
365	7.5.2.	7.5	_O	On 5/6/2010 (See Open Item No. 81) the NRC Staff requested an	The Common Q PAMS panel internals meets the	363. Y	Closed	Closed			NNC 4/125/2011: See Open Item No.
366	7.5.2.	7.5	C	On 5/6/2010 (See Open Item No. 81) the NRC Staff requested an	The Common Q PAMS and RM-1000 radiation monitors	364. Y	Closed	Closed			NNC 4/125/2011: See Open Item No.
367	7.5.2.	7.5	_ O	On 5/6/2010 (See Open Item No. 81) the NRC Staff requested an	Common Q PAMS complies with Regulatory Guide 1.153	365. Y	Closed	Closed			NNC 4/125/2011: See Open Item No.
368	7.5.2.	7.5	C	On 5/6/2010 (See Open Item No. 81) the NRC Staff requested an	Attachment 6 contains the evaluation for Common Q PAMS	366. Y	Closed	Closed			NNC 4/125/2011: See Open Item No.
369	7.5.2.	7.5	_ O	On 5/6/2010 (See Open Item No. 81) the NRC Staff requested an	1 Attachment 2 contains the proposed FSAR change	367. N	Closed	Closed			NNC 4/125/2011: See Open Item No.
370	7.5.2.	7.5	C	On 5/6/2010 (See Open Item No. 81) the NRC Staff requested an	TVA Partial Response to NRC Request:	368. Y	Closed	Closed			NNC 4/125/2011: See Open Item No.
371	7.5.2.	7.5	C	On 5/6/2010 (See Open Item No. 81) the NRC Staff requested an	1 Attachment 2 contains the proposed FSAR change	369. N	Closed	Closed			NNC 4/125/2011: See Open Item No.
372	7.5.2.	7.5	_O	On 5/6/2010 (See Open Item No. 81) the NRC Staff requested an	TVA Partial Response to NRC Request:	370. Y	Closed	Closed			NNC 4/125/2011: See Open Item No.
373	7.5.2.	7.5	_ O	The SDDs do not include any documented evidence that they were	See the response to Letter Item 4 (NRC Matrix Item	371. N	Closed	Closed			
374	7.5.2.	7.5	C	By letter dated October 29, 2010 (ML103120711), TVA docketed a	The Technical Specification Changes required by	372. N	Closed	Closed			
375	7.7.9		∀ _ >	1. During the conference call held on 4/12, the staff requested	TVA Partial Response to NRC Request:	373. N	Closed	Closed			
376	7.7.9		⋖	DCI-CVIB Input:	TVA does not agree with this recommendation. The IITA	374.	Closed	Closed			Related to OI 360
377	7.7.9		<	·	TVA Response	375.	Closed	Closed			
378			∀ _ >	Make the following WEC proprietary documents available for NRC	Per Westinghouse letter WBT-D-3201 (Reference 1), the	376.	Closed	Closed			
379			-	Provide proprietary and non-proprietary versions of the WINCISE		377.	Closed	Closed			
380			⋖ _ >	Provide Non-Proprietary functional description of the WINCISE	Attachment 3 contains the Westinghouse Non-Proprietary	378.	Closed	Closed			
381			⋖ – >	Non-Proprietary description of the qualification of the MI cable	Attachment 4 contains the Westinghouse non-proprietary	379.	Closed	Closed			
382			∀ _ >	Non-Proprietary description of the qualification of the SPS cabinet	Attachment 5 contains the Westinghouse non-proprietary	380.	Closed	Closed			
383			< <u> </u>	Non-Proprietary description of the qualification of the IITA with	Attachment 6 contains the Westinghouse non-proprietary	381.	Closed	Closed			
384			⋖ _ >	Non-Proprietary description of the differences between Unit 1 and	The only similarities between the WBN Unit 1 and Unit 2 IIS	382.	Closed	Closed			
385			⋖ _ >	Non-Proprietary description of the calc note shown to the NRC at	Attachment 7 contains Westinghouse non-proprietary	383.	Closed	Closed			
386			⋖ _ >	Provide a description of the communications between the SPS and	There is no direct communication between the SPS cabinets	384.	Closed	Closed			
387			⋖ _ >	Provide a copy of the analysis which states how Westinghouse has	As discussed in the Westinghouse WINCISE presentation at	385.	Closed	Closed			

¹ AP-1000 is a registered trademark of the Westinghouse Electric Company LLC

No. Se		FSAR Sec.	NRC POC	Issue	TVA Response(s)	Response Acceptable Y/N	Status/ Current Actions	Resolution Path	RAI No. & Date	RAI Resp. Date	Comments
388				Provide the following documents, which describe operation of the		386.	Closed	Closed			
389				Provide the proprietary version of the calculation described in		387.	Closed	Closed			
390				Westinghouse has indicated that the WINCISE Application		388.	Closed	Closed			
391				Clarify the type of connector used with the MI cable in Unit 2.		389.	Closed	Closed			
392				Clarify the logic to substract failed detectors from the		390.	Closed	Closed			
393				Clarify if the IITA assembly and the 6-to-1 transition cable		391.	Closed	Closed			
394				Confirm that power supply cables to the WINCISE SPS		392.	Closed	Closed			
395				Confirm that power supply to the WINCISE SPS cabinet are		393.	Closed	Closed			
101			DO	4/12/2010 The non-proprietary versions of the following RM-1000, Containment High Range Post Accident Radiation Monitor documents will be provided by June 30, 2010. 1. V&V Report 04508006A 2. System Description 04508100-1TM 3. Qualification Reports 04508905-QR, 04508905-1 SP, 04508905-2SP, 04508905-3SP 4. Functional Testing Report 04507007-1TR	Responder: Slifer The documents, and affidavits for withholding for the listed documents were submitted to the NRC on TVA letter to the NRC dated July 15, 2010.	1. Y	Open SSER 23 Table HH Item Number TVA3 Documents provided in letter dated 07/15/10	Open-NRC Review Due 10/14/10 Confirm receipt.	N/A		TVA is working with the vendor to meet the 6/30 date, however there is the potential this will slip to 7/14.
323				to the NRC by November 15, 2010		2. Y	SSER 23 Table HH Item Number 65 Due 3/29/11 Revised Response is included in letter dated 10/29/10 The staff is confused with the response since both units have reference leg not insulated Rev 2 should apply to Unit 1 also and there should be no difference between Unit 1 and 2 Amendment 104 has been submitted with this change. Please verify and close.	Open-NRC Review Due: Need to provide additional info on why Rev. 1 is acceptable for both units. 3/10/11 Staff does not agree with the statement that there is no technical differences between WCAP-13869 rev.1 and rev2., but staff agree that rev1 and change analysis could be basis for acceptance for both Watts Bar units. 4/6/11 TVA response is acceptable, however this item remains open until TVA makes changes to FSAR.		TVA Letter dated 10/29/10 Enclosure 1 Item No. 36	
327			DORL (Poole)	SC-2001 sheets 1 through 6. An affidavit for withholding and non-proprietary versions of the drawings will be submitted by January 31, 2011.	Responder: Webber In accordance with correspondence from Foxboro, there is no proprietary information contained in the 08F802403-SC-2001 drawings. Based on this, no affidavit for withholding is required. Attachment 1 contains versions of the drawings with the proprietary information block removed.	3. Y	Open SSER 23 Table HH Item Number TVA4 Response Included in letter dated 11/24/10	Open-NRC Review Due 11/24/10			
340 7.5	5.2. 3	7.5	(Si na	Provide test result curves for all EMI/RFI tests listed in Table 3.2.3 (page 3-8) of the Qualification Test Report 04508905-QR. In	Responder: GA	4. N	Open	Open-NRC Review			

No. SE Sec.	FSAR Sec.	NRC POC	Issue	TVA Response(s)	Response Acceptable Y/N	Status/ Current Actions	Resolution Path	RAI No. & Date	RAI Resp. Date	Comments
No. SE Sec.			addition, please provide the standards or the guidance documents used as the source for ENV 50140, ENV 55011 Class A, and EN 55022 Class B.	, ,	Acceptable Y/N	Status/ Current Actions SSER 23 Table HH Item Number 80 Due 4/30/11 Response included in letter dated 12/22/10.	Resolution Path Provide the qual reports by 1/28/11 per TVA letter of 12/22/10. Due: 2/25/11 Clarification Needed: Per 2/25/11 response TVA document SS-E18.14.01, Rev. 3 is the source document for all testing. Please provide this document for staff review. In addition British Standards (e.g. ENV 50140) have been cited in testing which are not per RG 1.180, R1. TVA to describe compliance of SS-E18-14.01 to RG 1.180 with justification for deviations. No test curves have been provided in any of the reports. As a minimum TVA to provide a few sample test curves or justify not supplying them. No EMI/RFI curves have been provided as yet. TVA to provide representative curves. NRC review proceeding in parallel. NRC current review guidance is based on compliance with RG 1.180 or equal with justification for variations. TVA is requested to provide the roadmap for compliance to RG 1.180 with justifications for any deviations. Simply following TVA standard specification SS E18.14.01, Rev. 3 is not sufficient.	RAI No. & Date	RAI Resp. Date	Comments
				 Attachment 23 contains the proprietary version of General Atomics Electronic Systems 04508905-QR, 						

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No.	SE Sec.	FSAR Sec.	NRC POC	Issue	TVA Response(s)	Response Acceptable Y/N	Status/ Current Actions	Resolution Path	RAI No. & Date	RAI Resp. Date	Comments
					"Qualification Test Report for RM-1000 Processor Module and Current-To-Frequency Converter." See sections 3.2.1 through 3.2.5 and 6.2 for EMI/RFI.						
					Attachments 7 and 8 document the EMI/RFI testing specific to the WBN Unit 2 RM-1000 monitors and current-to-frequency converters.						
					TVA Response to Second Follow-up NRC Request:						
					GA-ESI qualification report 04038903-7SP, "Qualification Basis for 04034101 (2-RE-90-271, 272, 273 & 274)" Revision C dated February 22, 2011(Proprietary), submitted on TVA to NRC letter dated February 25, 2011 (Reference 2), section 5.1 states:	1					
					"GA-ESI has performed the tests on a 2 channel RM-1000 radiation monitoring system the configuration of which is shown in GA-ESI drawing 04509000 System Installation Configuration, RFI/EMI Test, RM-1000 the results of which are issued in GA-ESI report 04038800, RM-1000 EMC Test Report, TVA and 04509050, RM-1000 EMC Test Report. The equipment tested used an RM-1000 microprocessor radiation monitor Display/Control NIM Bin Assembly, an I-F Converter, line filter, and an RD-23 detector. The monitor system being qualified is the same as the monitor system tested and includes ECO-17656 modifications to ensure EMC compliance."						
					Attachment 1 contains the TVA "Browns Ferry High Range Radiation Monitor" which contains the requested EMI test curves. We have confirmed that the GA-ESI reports (04509050, "RM-1000 EMC Test Report," dated 4/22/03 and 04038800, RM-1000 EMC Test Report," dated 11/11/99) included in the TVA report are applicable to the WBN Unit 2 RM-1000 monitors. The non-proprietary versions and affidavit for withholding of GA-ESI reports (04509050 and 04038800) will be submitted within two weeks of receipt from GA-ESI.						
					GA-ESI qualification report 04038903-7SP, section 5, provides a detailed discussion of the test results in GA-ESI report 04509050.						
					TVA Response to Follow-up NRC Request Attachment 1 provides a comparison of the TVA EMC specification SS E18.14.01, Revision 3 requirements to RG 1.180 requirements.						
349	7.5.2. 3	7.5	EICB (Singh)	Radiation testing was not considered in any of the test reports as all the equipment has been assumed to be located in nuclear power plant areas with mild environments and radiation dosages less than 1 x 10³ rads for total integrated dose (TID). However, the radiation monitors and the I/F converters are located in the main control room which is defined as mild environment. For WBN-2 mild environment is defined as room or building zone where (1) the temperature, pressure, or relative humidity resulting from the direct effects of a design basis event (DBE) (e.g.,	The design criteria provides the criteria for determining what is a mild environment at WBN Unit 2. Calculation WBNAPS4004 "Summary of Mild Environment Conditions for Watts Bar Nuclear Plant" provides the actual values for each area of the plant. In accordance with Table 1, the Control Room has a 40 year maximum TID of 3.5x10² RAD and a maximum integrated accident dose of 710.5 RAD for a maximum TID of 1060.5 RAD.		Open Response included in letter dated 8/4/11 SSER 23 Table HH Item Number 78	Open-NRC Review Mech Eng to revise calculation Due: 2/25/11 TVA to provide the assessment document			

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No.	SE Sec.	FSAR Sec.	NRC POC		TVA Response(s)	Response Acceptable Y/N	Status/ Current Actions	Resolution Path	RAI No. & Date	RAI Resp. Date	Comments
				temperature rise due to steam release) are no more severe than those which would occur during an abnormal plant operational condition, (2) the temperature will not exceed 130°F due to indirect effects of a DBE, (3) the event radiation dose is less than or equal to 1 x 10⁴ rads, and (4) the total event plus the 40 year TID (total integrated dose) is less than or equal to 5 x 10⁴ rads (reference WB-DC-40-54). TVA to address lack of radiation qualification for WBN-2.	The accident dose of 710.5 RAD is the dose for a 100 day LOCA at the surface of the HEPA filter in the Mechanical Equipment Room. This is documented in TVA calculation WBNTSR-005, "Dose Due to the Control Building Emergency Air Cleanup Filters" Revision 3. However, on page 25 of WBNTSR-005, the shine from this source into the control room is negligible and is not considered in the dose calculation for the control room. Calculation WBNAPS3-126, "EQ Dose in the U1/U2 Auxiliary Instrument Rooms and the Computer Room in the Control Building" Revision 0 documents the environmental qualification (EQ) radiation dose in the control building. A review of this document by the TVA radiation protection engineer determined that the TID including the normal and accident dose values for the control room is less than 1x10 ³ RAD. Calculation WBNAPS3-126, will be revised to include the control room by July 1, 2011. Since the control room TID has been determined to be less than 1x10 ³ RAD, radiation qualification of the RM-1000. Attachment 1 contains TVA calculation WBNAPS3127, "EQ Dose in the Control Building," Revision 0, which completes this item. The calculation result for the Main Control Room on elevation 755 is a total integrated gamma plus beta dose (40 year normal plus 100 day accident) of 362.76 Rads. This is less than the 1000 Rad maximum limit for the containment high range radiation monitors.			or a summary of the document with the reference to the appropriate document/documents. February 25, 2011 response is acceptable. Item will be tracked as a confirmatory item in the SE. TVA to provide calculation or summary of calculation when complete.			
359 7	.7.1. 1		EICB (Carte)	Was the CERPI system developed under a 10 CFR 50 Appendix B compliant program?	CERPI is a non-safety related system. Therefore, 10 CFR 50 Appendix B is not applicable.		Open SSER 23 Table HH Item Number TVA6 Due 4/15/11	Open-NRC Review			
361 7	.7.1. 1		EICB (Carte)	Was the Foxboro IA system developed under a 10 CFR 50 Appendix B compliant program?	Foxboro I/A is a non-safety related system. Therefore, 10 CFR 50 Appendix B is not applicable.		Open SSER 23 Table HH Item Number TVA7 Due 4/15/11	Open-NRC Review			
	.5.1. 1.3 and '.9.1	7.5.2	EICB (Rahn and Mossman)	associated with the Technical Support Center and Nuclear Data Link. TVA responded in Letter Dated October 5, 2010, Item 63; however, TVA's response does not address the quality aspects of these system features. A similar question had been asked for Quality Criteria adherence for the SPDS and the BISI functions of the Integrated Computer System. In response to that request (same letter) TVA provided a description of TVA procedures, BISI software development procedures, and various management	been superseded by TVA Procedure NPG-SPP-12.7, "Computer Software Control," Revision 0, dated December 17, 2010 (Attachment 3). To ensure quality, the design, testing, and inspection of all Integrated Computer System (ICS) software including a) SPDS, b) BISI and c) Technical Support Center (TSC) and Nuclear Data Link (NDL) functionality is controlled by qualified personnel in accordance with TVA procedure NPG-SPP-12.7. The TSC and NDL functions are provided and		Open SSER 23 Table HH Item Number TVA8 Due 4/30/11	Open-NRC Review			

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No. SE		NRC POC	Issue	TVA Response(s)	Response Acceptable Y/N	Status/ Current Actions	Resolution Path	RAI No. & Date	RAI Resp. Date	Comments
			needed to support the data communications features. Also, what quality measures will be applied to develop, maintain, and operate the hardware that accomplishes the TSC and NDL functions to ensure that these features will be reliable and available when needed?	includes the a) SPDS, b) BISI and c) TSC and NDL functions. The procedure details controls and processes required for the development, modification, and configuration management of computer software used to support the design, operation, modification, and maintenance of TVA's nuclear power plants consistent with the Nuclear Quality Assurance Plan. Controls in NPG-SPP-12.7 guide the development and testing of the software changes. Other controls established by this procedure to further maintain quality standards are: The application custodian implements controls to prevent unauthorized changes to the software. Changes are made in a non-production environment, and validation testing takes place before the change is installed on the ICS when possible. Once validation testing begins, the source code is placed under configuration control. When the modifications are installed on the ICS, an operability test is performed to demonstrate that the software is installed correctly and is functioning correctly in its operating environment. Documentation related to ICS software changes are QA records. The software source code is kept in a physically secure, environmentally controlled space to prevent inadvertent changes. Cyber security considerations are also considered in the storage environment. The data goes through several validation steps before being presented to the operators. When redundant sensors are used, the data received by the computer can be processed by software to determine if the quality of one or more points is questionable. The hardware involved in the TSC and NDL functionality is verified to be operable on a periodic basis. In the case of the NDL functionality, the ICS transmits the required data to the CECC on a continuous basis. The CECC monitors the status of the ICS data communications and alarms are generated when the link is not active. The Emergency Plan (EP) staff conducts a quarterly test that verifies that NDL data is successfully transmitted from each unit to the NRC.						
346 7.5. 3	7.5	EICB (Singh)	1000 System Verification Test Results report, 04507007-1TR is not applicable to WBN-2. However, TVA has not provided a WBN-2 specific test results report. Please identify and provide the appropriate test results reports to complete the review.	Document 04507007-1TR is the RM-1000 System Verification Test Results. 04038903-QSR, "Qualification Summary Report for Watts Bar Nuclear Plant Unit 2 Replacement Radiation Monitors" (Attachment 8) and 04038903-7SP, "Qualification Basis for 04034101 (2-RE-90-271, 272, 273 & 274) (Attachment 7) are the Watts Bar Unit 2 equipment specific qualification reports. TVA Response to Follow up NRC Request: Report 04507007-1TR "RM-1000 System Verification Test Results" is applicable to the WBN Unit 2 monitors. The	9. N	Open SSER 23 Table HH Item Number TVA5 Due: TBD	Open-TVA/Bechtel Due: 2/25/11 The proposed response appears to be conflicting with the proposed response for OI-351 regarding not submitting the 04508905-QR report. TVA to re-assess			MSC 7/11/11: Assigned to J. Temples as GA-ESI Contract Manager for Licensing Support to confirm procedure was developed under 10CFR50 Appendix B.

No.	SE Sec.	FSAR Sec.	NRC POC	Issue	TVA Response(s)	Response Acceptable Y/N	Status/ Current Actions	Resolution Path	RAI No. & Date	RAI Resp. Date	Comments
					applicability is that 04507007-1TR includes all test cases called out in the 04507006 "RM-1000 System Test Procedure Specification" and contains evidence that the V&V tests were performed with version 1.0 software code. The verification report for version 1.1 software is document 04508005 "RM-1000 Software Version 1.1 Software Verification Report." Document 04508006 "RM-1000 Version 1.2 Software Verification and Validation Report" shows that the required test was completed to validated version 1.2 code for the RM-1000. The Engineering reviewed and approved proprietary versions of 04507007-1TR, 04508005 and 04508006 will be submitted within two weeks of receipt from GA-ESI. The unreviewed proprietary versions, non-proprietary versions and affidavit for withholding were submitted on TVA to NRC letter July 15, 2010 (Reference 3). TVA Response to Follow up NRC Request GA-ESI has a single process for buying material, assembling and testing modules. The same process is used for any part number, safety related or not so they can avoid having to store the same part number in two different locations and avoid the possibility of mixing them up. Therefore, the Sorrento Electronics "safety-related" production modules and the Sequoyah "non-safety-related" modules are physically identical. Based on the above the report is acceptable.			proposed response for both Ols. TVA to re-evaluate previous responses to Ol-316 and Ol-319 which have conflicting responses regarding the applicability of 04507007-1TR. NRC Follow-up question Report 04507007-1TR, 1999 states in the Test Summary that "Initially the testing was done using the SE safety related production modules that had undergone software V&V testing. The majority of the testing was done by using two of the Sequoyah nonsafety related production modules for the TVA contract, substituted for the SE modules." Since the report is based on primarily non safety related components TVA to clarify and justify why NRC should accept this test report for safety related V&V testing. NRC Follow-up All safety related work must be quality controlled per 10CFR50, App. B. TVA to confirm that the procedure used for the system verification tests (04507007) was actually a procedure that was prepared per 10CFR50, App. B.			
353	7.5.2. 3	7.5	(Singh	Please provide a summary of the [manufacturer's] commercial dedication plan for radiation monitors with references to the guidance document that it follows. Also please include different facets (e.g. receiving, inspection, testing etc.) of the plan.	GA-ESI submitted their commercial grade dedication procedure (OP-7.3-240, "Safety-Related Commercial Grade Item Parts Acceptance," Revision H) to engineering for review. Engineering review of the procedure found that the procedure, Section 5, did not require multiple dedication		Open SSER 23 Table HH Item Number 81	Open-TVA/Bechtel TVA to note that staff has written a safety evaluation and		as Lice	C 7/11/11: Assigned to J. Temples GA-ESI Contract Manager for ensing Support to obtain revised cedure.

o. SE Sec.	FSAR Sec.	NRC POC	Issue	TVA Response(s)	Response Acceptable Y/N	Status/ Current Actions	Resolution Path	RAI No. & Date	RAI Resp. Date	Comments
				methods for complex CGI or CGI used in digital safety		Due: TBD	accepted EPRI TR-			
				systems. As a result, it was determined that the GA-ESI			106439 (1996) as an			
				program did not meet the requirements of NUREG-800, Section 7.0A, Revision 5.			acceptable method of addressing commercial			
				Section 7.0A, Revision 5.			dedication. EPRI NP-			
				A discussion with GA-ESI found that while not required by			5652 must be used in			
				procedure, GA-ESI does perform vendor surveys as required			conjunction with the			
				by Method 2 of NP-5652. The surveys are done based on			additional guidance in			
				prudent business practices. Based on this discussion, GA-			EPRI TR-106439 for			
				ESI agreed to review the CGI used in the WBN Unit 2 digital			commercial dedication			
				safety-related monitors to determine if they had been			processes e.g. EPRI			
				dedicated by more than one method.			NP-6404, EPRI TR-			
				T			102260, GL 89-02, and			
				The review of the CGI used in the WBN Unit 2 digital safety-			GL-91-05 per Section			
				related monitors determined that all CGI had been dedicated			3.3 of EPRI TR-			
				using Method 1 of EPRI guideline NP-5652. However, in the sample of items reviewed, there were CGI that were			106439.			
				dedicated using a single method. Based on the results of the			Follow-up			
				engineering procedure review and the results of the GA-ESI			clarification:			
				CGI review, Service Request 346896 was initiated to			ciarification.			
				document the condition and to place the monitors in			TVA to review and			
				"Conditional Release" status.			satisfy itself with the			
							procedure and provide			
				Based on the results of the previous reviews, GA-ESI agreed			NRC a copy of the			
				to the following plan of action to resolve the CGD issue:			procedure for review.			
							In addition, TVA and			
				GA-ESI shall revise its commercial grade dedication			GA to provide			
				procedure (OP-7.3-240) to require multiple dedication			information as to what			
				methods be utilized for complex commercial grade			additional measures			
				items and commercial grade items for digital safety			were taken by GA with			
				class systems. The evidence that this has been			available			
				completed will be provided to TVA by April 15, 2011.			documentation to prove that more than one			
				Specifically, Method 1 and at least one additional			method was followed			
				method from the list below will be used to ensure that			for commercial			
				the CGD procedure complies with the current SRP.			dedication.			
				Method 1 - Special Tests and Inspections			Follow-up comments			
				Method 2 - Commercial Grade Survey of Supplier						
				Method 3 - Source Verification			Staff has reviewed GA			
				Method 4 - Acceptable Supplier/Item Performance			document OP-7.3-240			
				Record			and requests further clarification, addition, or			
				GA-ESI shall take actions consistent with the revised			amplification on the			
				operating procedure to address the CGIs used in the			following comments:			
				WBN Unit 2 safety-related digital monitors. Evidence			lollowing confinents.			
				that those actions have been completed will be provided			Section 2, Applicable			
				no later than September 1, 2011.			Documents Please add			
				,,,,			EPRI TR-102260 and			
				Based on the above action plan, TVA will resolve the issues			IEEE 7-4.3.2 for digital			
				with the GA-ESI CGD of CGI used in the WBN Unit 2			components. Also add			
				monitors and submit documentation of the resolution to the			generic letter GL 91-05,			
				NRC by:			Licensee Commercial-			
							Grade Procurement			
				GA-ESI procedure OP-7.3-240 revision: April 30, 2011			and Dedication			
				 Resolution of CGD of CGI used in WBN Unit 2 RM- 			Program.			
				1000 monitors: September 15, 2011			Section 3, Definitions,			
							Approved Supplier List			
1	1	1					(ASL) How is Quality		1	

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No. SE Sec.	FSAR Sec.	NRC POC	Issue	TVA Response(s)	Response Acceptable Y/N	Status/ Current Actions	Resolution Path	RAI No. & Date	RAI Resp. Date	Comments
				TVA Response to Follow up NRC Request (1) TVA has reviewed the revised GA-ESI procedure and determined that changes bring the CGD program into conformance with the requirements of NUREG-800, Section 7.0A, Revision 5 EPRI topical report TR-106439 and EPRI guideline NP-5652. Attachment 2 contains GA-ESI procedure OP-7.3-240 "Safety-Related Commercial Grade Item Parts Acceptance," Revision I. (2) As stated in TVA to NRC letter dated April 15, 2011(Reference 1), Attachment 4, List of New Commitment Items, item 2, the due date for resolution of this issue is September 15, 2011.			Assurance Program approved? Is a vendor survey performed? Please explain the basis for approving the Quality Assurance Plan. Section 3, Definitions, Basic Components Incomplete definition. The definition for basic components must match the definition in 10CFR Part 21. Section 3, Definitions, Components Please use or add the examples in the definitions which are relevant to General Atomics supplied equipment. Section 3, Definitions, Critical Characteristics (CC) Incomplete definition. Use the definition. Use the definition in 10CFR Part 21. Section 3, Definitions, Dedication Incomplete definition. Please use the definition in 10CFR Part 21. Section 3, Definitions, Dedication Incomplete definition. Please use the definition in 10CFR Part 21. Section 3, Definitions, Identical Item Include same manufactured at the same time (Per Inspection Procedure 43004) along with same part, make and model number. Section 3, Definitions, Identical Item Include same manufactured at the same time (Per Inspection Procedure 43004) along with same part, make and model number. Section 3, Definitions, Identical Item Include same manufactured at the same time (Per Inspection Procedure 43004) along with same part, make and model number. Section 3, Definitions, Identical Item Include same manufactured at the same time (Per Inspection Procedure 43004) along with same part, make and model number. Section 3, Definitions, Identical Item Include same manufactured at the same time (Per Inspection Procedure 43004) along with same part, make and model number. Section 3, Definitions, Identical Item Include same manufactured at the same time (Per Inspection Procedure 43004) along with same part, make and model number.			

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								elaborate where			
								guidance for technical evaluation can be			
								found.			
								Section 4, Method 1,			
								Sub-item a Bullet No. 5			
								states the sample size to be taken but does			
								not provide any			
								guidance regarding the			
								methodology for			
								sample size selection. Please include the			
								guidance for sample			
								selection methodology			
								that is based on a			
								recognized industry statistical method (e.g.			
								EPRI 7218).			
								Section 4.a, Method 1			
								Bullet No. 6 describes			
								tests and inspections but does not provide			
								the parameters of			
								acceptability.			
								Section 4.b, Method 2 In the second			
								paragraph please			
								modify the wording to			
								clarify that a			
								commercial grade survey can be used to			
								accept critical			
								characteristics of			
								simple or complex			
								parts. Section 4.b, Method 2			
								Bullet No. 5 Suggest			
								that the wording be			
								changed to clarify that the critical			
								characteristics cannot			
								be verified easily.			
								Section 4.b, Method 2			
								Paragraph following Bullet No. 5 Staff			
								agrees that the			
								approach is acceptable			
								initially as long as			
								receipt inspection is performed (Reference			
								GL 89-02).			
								Subsequently a design			
								engineer must evaluate the performance based			
								on a defined frequency.			
								Section 4.b, Method 2			
								Second paragraph			
								following Bullet No. 5.			

				on with the flac chapter tonly)	180 10202.000			Open items to be itesoived for SERA			
No.	SE Sec.	FSAR Sec.	NRC POC	Issue	TVA Response(s)	Response Acceptable Y/N	Status/ Current Actions	Resolution Path	RAI No. & Date	RAI Resp. Date	Comments
								After the first sentence			
								add the sentence that			
								engineering will determine the			
								acceptability of critical			
								characteristics.			
								Section 4.c. Method 3 – Source Verification			
								Please add an opening			
								sentence explaining that this method is used			
								when a supplier does			
								not have adequate			
								programmatic controls in place.			
								Section 4.e.			
								Combination of two or			
								more methods In the first paragraph please			
								state that method 2 and			
								method 4 alone are not			
								sufficient per the guidance of GL 89-02.			
								Section 6.e. Part			
								Changes Add the fact			
								that the change should be based on			
								equivalency			
								evaluations.			
								Section 6.f. Previous Dedication Review In			
								the first paragraph			
								please make it clear			
								that engineering should evaluate there have			
								been no design			
								changes. Section 6.h. Technical			
								Evaluation In the first			
								paragraph (Item 1)			
								there is a need to augment guidance for			
								technical evaluation.			
								Need to explain the			
								comment further. Section 6.h. Technical			
								Evaluation In the fourth			
								paragraph (Item 4)			
								This paragraph does not match the definition			
								of like-for-like			
								replacement as noted			
								by staff comments. Section 6.i.			
								Determination of			
								Critical Characteristics			
								It is not clear why the critical characteristics			
								should be limited to			
	1	1	1			1				·	

	No. SE Sec.	FSAR Sec.	NRC POC	Issue	TVA Response(s)	Response Acceptable Y/N	Status/ Current Actions	Resolution Path	RAI No. & Date	RAI Resp. Date	Comments
								environment. Please expand or justify the statement. Section 9, 10CFR21 Please modify the requirements of reporting per the guidance of 10CFR21.21. These requirements apply to, "Each individual, corporation, partnership, dedicating entity, or other entity subject to the regulations in this part". Section 10 Certifications Please change the last sentence to clarify that once the critical characteristics have been verified and the item dedicated it is no longer commercial grade. Present wording causes confusion. General It is recommended that the order in which the procedure is organized be re-evaluated. Following the Definitions section, safety classification should be addressed first then followed by technical evaluation, and then the acceptance methods.			
,	3.10			Provide proprietary, non-proprietary versions and affidavits for withholding for the following documents: General Atomics Electronic Systems 04038903-1SP, Qualification Basis for 04031101-001 (2-RE-90-130 &131). General Atomics Electron Systems 04038903-2SP, Qualification Basis for 04031301-001 (2_RE-90-106). General Atomics Electronic Systems 04038903-4SP, Qualification Basis for 04031501-001 (2-RE-90-112).			Open SSER 23 Table HH Item Numbers TVA21 Schedule: TBD Request from NRC Civil branch received from J. Poole via e-mail on July 6, 2011.	Open-TVA/Bechtel			MSC 7/11/11: Assigned to J. Temples as GA-ESI Contract Manager for Licensing Support.