PMComanchePeakPEm Resource

From: Woodlan, Don [Donald.Woodlan@luminant.com]
Sent: Sunday, February 05, 2012 11:37 AM
To: Monarque, Stephen; ComanchePeakCOL Resource
Cc: Otto, Ngola; Conly, John; Evans, Todd; Bird, Bobby; nicholas_kellenberger@mnes-us.com; russell_bywater@mnes-us.com; Galvin, Dennis
Subject: 2012-02-05 Woodlan, Clarifications re Chapter 14 ITAAC in revision 2 of COLA
Attachments: 2012-02-05 ITAAC changes from RAI response to COLA Rev 2_Final Revision.pdf

Steve,

As you may recall, a Chapter 14 reviewer questioned why the ITAAC provided in revision 2 to the CPNPP COLA did not match the mark-ups attached to several RAI responses (see below):

RAI-174, 175 and 176 response, TXNB-10067, 10/6/2010 (ML102810223)
RAI-177 response, TXNB-10072, 10/11/2011 (ML102861203)
RAI-181 response, TXNB-10079, 10/29/2011 (ML103060049)
RAI-211 response, TXNB-11025, 4/19/2011 (SUNSI)

We explained that the version in revision 2 of the COLA came from an earlier UTR (ITAAC R2 UTR2, TXNB-11031, 5/9/2011 (ML11133A069)). The versions in the UTR started with the mark-ups provided in the RAI responses and enhanced them using the same criteria used by the US-APWR DCD ITAAC enhancement project. This project was designed to enhance the ITAAC by adding clarity, applying consistent language, incorporating lessons learned from the ITAAC reviews for other designs, and more. The versions also incorporated some updates from elsewhere in the CPNPP design.

A more specific description of the changes made in the UTR and COLA revision are provided in the attached file.

I hope that these clarifications are useful to the reviewer and allows the reviewer to understand and assess our product. If additional clarification is needed, we should consider a conference call. Both Wednesday afternoon and Thursday afternoon (before 3:30pm EST) seem to be available during this upcoming week although other times are available as well. Please propose a day and time if you feel a conference call is needed.

Thanks,

Donald R. Woodlan
Manager, Nuclear Regulatory Affairs
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Hearing Identifier: ComanchePeak_COL_Public
Email Number: 1627

Mail Envelope Properties (A14E58C5F78AFF42A15604A5343F1390442DC01239)

Subject: 2012-02-05 Woodlan, Clarifications re Chapter 14 ITAAC in revision 2 of COLA
Sent Date: 2/5/2012 11:36:37 AM
Received Date: 2/5/2012 11:37:13 AM
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Files	**Size**	**Date & Time**
MESSAGE	2233	2/5/2012 11:37:13 AM
2012-02-05 ITAAC changes from RAI response to COLA Rev 2_Final Revision.pdf	739323	

Options
Priority: Standard
Return Notification: No
Reply Requested: No
Sensitivity: Normal
Expiration Date:
Recipients Received:

ITAAC changes from RAI responses 174-177, 181 and 211 to COLA Rev 2

In response to several RAI questions, Luminant submitted COLA Part 10 markups (in late 2010 and early 2011 as noted below) which revised selected ITAAC items. Also in 2010 and early 2011, the US-APWR worked on an ITAAC enhancement project and in revision 3 (dated March 2011) submitted revised DCD Tier 1 ITAAC based upon that ITAAC enhancement project. Luminant committed to incorporate the same enhancements in the CPNPP ITAAC in COLA Part 10 and did so in ITAAC Rev 1 UTR Rev 2 dated May 9, 2011 and COLA Revision 2 dated June 30, 2011.

From the submittal letter TXNB-11031 for ITAAC Rev 1 UTR Rev 2 on May 9, 2011 (ML11133A052):

> Luminant Generation Company LLC (Luminant) submits herein Update Tracking Report (UTR) Revision 2 for Part 10 of the Combined License Application (COLA) for Comanche Peak Nuclear Power Plant Units 3 and 4. The UTR reflects changes to maintain consistency with the US-APWR Design Control Document (DCD) Revision 3 and with the Final Safety Analysis Report. The COLA ITAAC were enhanced in the same manner as the DCD Tier 1 ITAAC enhancements presented in DCD Revision 3. The tracking report revision list provides a summary of and a reason for each change, and addresses any differences in page numbers between COLA Revision 1 and the UTR.

RAI			ITAAC		ITAAC UTR Revision 2	Reason
CP RAI #	eRAI	Question	Table	Item #		
174	5004	14.3.7-29	A.1-1	5.b.ii	CTS-01174	See Below
			A.1-1	7	CTS-01174	See Below
			A.3-1	5a	CTS-01208	ITAAC were deleted because barriers, penetrations, and doors are not credited for safety function
			A.3-1	5b	CTS-01208	ITAAC were deleted because barriers, penetrations, and doors are not credited for safety function
175	5005	14.3.7-30	A.1-1	12a	CTS-01174	See Below
			A.1-1	12b	CTS-01174	See Below
			A.2-1	7a	CTS-01174	See Below
			A.2-1	7b	CTS-01174	See Below
176	5029	14.3.7-31	None	None*		
177	5027	14.3.7-32	A.3-1	2a	CTS-01174	See Below
181	5099	14.3.7-33	None	None*		
211	5494	14.3.12-5	C-1	3.c	CTS-01174	See Below
			C-1	11.c.ii	CTS-01174	See Below
			C-1	16.c.ii	CTS-01174	See Below
*There was no COLA change associated with this RAI and the RAI status should be changed to resolved/closed.						

CTS-01174 has these reason for changes which apply to the changes above	Consistency between DCD Tier 1 and RCOLA Part 10
	Consistency between design description and acceptance criteria
	Consistency between the Inspection, Test, and Analysis and the Acceptance Criteria.
	Consistent reference to the Design Description
	Consistent use of “a report exists"
	Consistent use of “seismic Category I”
	Consistent reference to Tables and Figures where applicable
	Consistency with Tier 1 interface requirements.
	Removed redundant ITAAC
	Revised ITAAC to be consistent with latest SRP guidance.

References:

RAI-174, 175 and 176 response, TXNB-10067, 10/6/2010 (ML102810223)

RAI-177 response, TXNB-10072, 10/11/2011 (ML102861203)

RAI-181 response, TXNB-10079, 10/29/2011 (ML103060049)

RAI-211 response, TXNB-11025, 4/19/2011 (SUNSI)

ITAAC R2 UTR2, TXNB-11031, 5/9/2011 (ML11133A069)

from RAI 174

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

Comanche Peak, Units 3 and 4

Luminant Generation Company LLC

Docket Nos. 52-034 and 52-035

RAI NO.: 5004 (CP RAI #174)

SRP SECTION: 14.03.07 - PLANT SYSTEMS - INSPECTIONS, TESTS, ANALYSES, AND ACCEPTANCE CRITERIA APPLICATION SECTION: PART 10, TABLE A.1-1, ITEM 7

QUESTIONS for Quality and Vendor Branch 1 (AP1000/EPR Projects) (CQVP)

DATE OF RAI ISSUE: 09/02/2010

QUESTION NO.: 14.03.07-29

The regulatory basis for this question is 10 CFR 50.70 and 10 CFR 50, Appendix B, Criterion III, Design Control.

Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) Item 7 in Table A.1-1

In a previous RAI question (RAI Number 81 (3293), Question 14.03.07-5 (13063)), the staff stated that the phrase "heat removal capability transferred design heat load" referred to in the Design Commitment and AC was confusing, and requested the applicant to: (1) indicate what system removes the design heat load from the Emergency Service Water System (ESWS), (2) indicate that that system has the heat removal capability to transfer the design heat load from the ESWS, and (3) revise the nebulous term "adequate" referred to in both the Design Commitment and the AC. The applicant in its response addressed the changes requested by revising the (a) Design Commitment to state that the Ultimate Heat Sink (UHS) components referred to in Table A.1-2 are capable of removing the maximum heat load transferred from the ESWS, (b) Inspections, tests, analyses (ITA) by performing an inspection for the existence of a report, and (c) the AC by continuing to the refer to "adequate" heat removal capability of the UHS from ESWS while maintaining a UHS outlet temperature of 95 degrees Fahrenheit. The staff does not agree that the applicant has fully addressed its requested changes. The staff requests the applicant to make these further changes: (i) the ITA should be the performance of "tests and analyses" not the performance of an "inspection" to determine the heat removal capability of the UHS, and (ii) the AC should be changed to state that analyses and/or test reports exist and conclude that the UHS removes the maximum design heat load of the ESWS while maintaining an outlet temperature of 95 degrees Fahrenheit without using the term "adequate" to refer its heat removal capability..

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from RAI 174

ANSWER:

The ITA and AC for ITAAC item 7 in Table A.1-1 has been revised as suggested by the NRC. The ITA has been revised to state that a combination of tests and analyses will be performed to determine the heat removal capability of the as-built UHS system. The AC has been clarified to state that a report exists and concludes that the UHS removes the maximum design heat load of the ESWS while maintaining an outlet temperature of 95 degrees Fahrenheit. This language is chosen to be consistent with the DCD Tier 1 ITAAC.

Luminant has made similar changes to Table A.1-1 Item 5.b.ii and Table A.3-1 Items 5.a and 5.b.

Impact on R-COLA

See attached marked-up COLA Part 10 Revision 1 pages 13, 14 and 32.

Impact on DCD

None.

from RAI 174

Comanche Peak Nuclear Power Plant, Units 3 & 4
COL Application
Part 10 - ITAAC and Proposed License Conditions

Appendix A.1

Table A.1-1 (Sheet 3 of 6)

Ultimate Heat Sink System and Essential Service Water System
(Portions Outside the Scope of the Certified Design)
Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria	
4.a The ASME Code Section III components, identified in Table A.1-2, retain their pressure boundary integrity at their design pressure.	4.a A hydrostatic test will be performed on the as-built components required by the ASME Code Section III to be hydrostatically tested.	4.a The results of the hydrostatic test of the as-built components identified in Table A.1-2 as ASME Code Section III conform to the requirements of the ASME Code Section III.	
4.b The ASME Code Section III piping, identified in FSAR Table 3.2-201, retains its pressure boundary integrity at its design pressure.	4.b A hydrostatic test will be performed on the as-built piping required by the ASME Code Section III to be hydrostatically tested.	4.b The results of the hydrostatic test of the as-built piping identified in FSAR Table 3.2-201 as ASME Code Section III conform to the requirements of the ASME Code Section III.	
5.a The seismic category I equipment, identified in Table A.1-2, ~~can~~is designed to withstand seismic design basis loads without loss of safety function.	5.a.i Inspections will be performed to verify that the seismic category I as-built equipment identified in Table A.1-2 is installed in the location identified in FSAR Table 3.2-201.	5.a.i The seismic category I as-built equipment identified in Table A.1-2 is installed in the location identified in FSAR Table 3.2-201.	RCOL2_14.03.03-3
	5.a.ii Type tests and/or analyses of the seismic category I equipment will be performed.	5.a.ii The results of the type tests and/or analyses conclude that the seismic category I equipment can withstand seismic design basis loads without loss of safety function.	
	5.a.iii Inspections will be performed on the as-built equipment including anchorage.	5.a.iii The as-built equipment including anchorage is seismically bounded by the tested or analyzed conditions.	
5.b Each of the seismic category piping, including supports, identified in FSAR Table 3.2-201, is designed to withstand combined normal and seismic design basis loads without a loss of its ~~functional capability~~safety function.	5.b.i Inspections will be performed to verify that~~on~~ the as-built seismic Category I piping, including supports, identified in FSAR Table 3.2-201 are supported by a seismic Category I structure(s).	5.b.i Report(s) document that ~~E~~each of the as-built seismic ~~c~~Category I piping, including supports, identified in FSAR Table 3.2-201 ~~meets the~~is supported by a seismic ~~c~~Category I structure(s)~~requirements~~.	RCOL2_14.03.03-4
	5.b.ii Inspections and analysis to verify that the as-built piping, including supports identified in FSAR Table 3.2-201 can withstand combined normal and seismic design basis loads without a loss of its safety function will be performed.	5.b.ii A report exists and concludes that each of the as-built seismic Category I piping, including supports, identified in FSAR Table 3.2-201 can withstand combined normal and seismic design basis loads without a loss of its safety function.	RCOL2_14.03.07-29

from UTR Rev 2

Comanche Peak Nuclear Power Plant, Units 3 & 4
COL Application
Part 10 - ITAAC and Proposed License Conditions

Appendix A.1

Table A.1-1 (Sheet 4 of 7)

Ultimate Heat Sink System and Essential Service Water System
(Portions Outside the Scope of the Certified Design)
Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria	
	5.a.ii Type tests, ~~and/or~~ analyses, or a combination of type tests and analyses of ~~the~~ seismic ~~c~~Category I equipment identified in Table A.1-2 will be performed using analytical assumptions, or will be performed under conditions which bound the seismic design basis requirements.	5.a.ii A report exists and concludes that ~~The results of the type tests and/or analyses conclude that~~ the seismic ~~c~~Category I equipment identified in Table A.1-2 can withstand seismic design basis loads without loss of safety function.	CTS-01174
	5.a.iii Inspections and analyses will be performed to verify that~~on~~ the as-built seismic Category I equipment, identified in Table A.1-2, including anchorages, is seismically bounded by the tested or analyzed conditions.	5.a.iii A report exists and concludes that ~~T~~the as-built seismic Category I equipment identified in Table A.1-2, including anchorages, is seismically bounded by the tested or analyzed conditions.	
CTS change added words "(portions outside the scope of the certified design)." This change was made because portions of piping shown on Table 3.2-201 are inspected through DCD ITAAC. This ITAAC should not re-inspect and close piping ITAAC that will be closed by another ITAAC. This falls under consistency with DCD and interface with Tier 1. There are no technical changes. The CTS change also deleted the words "combined normal and". The seismic analysis is discussed in DCD Section 3.10 and include normal and dynamic load combinations. Design basis loads includes all load combinations as described in the DCD. DCD Tier 1 ITAAC have all been changed to this language. "Combined normal and" has been deleted in every location.	b.i Inspections will be performed to verify that~~on~~ the as-built seismic Category I piping of the UHSS and ESWS (portions outside the scope of the certified design), including supports, identified in FSAR Table 3.2-201 are supported by a seismic Category I structure(s).	5.b.i ~~Each of t~~The as-built seismic ~~c~~Category I piping of the UHSS and ESWS (portions outside the scope of the certified design), including supports, identified in FSAR Table 3.2-201 ~~meets the~~are supported by a seismic ~~c~~Category I structure(s)~~requirements~~.	RCOL2_14.03.03-4 CTS-01174
~~its functional capability~~ safety function.			
	5.b.ii Inspections and analysis will be performed to verify that the as-built seismic Category I piping of the UHSS and ESWS (portions outside the scope of the certified design), including supports identified in FSAR Table 3.2-201 can withstand seismic design basis loads without a loss of its safety function.	5.b.ii A report exists and concludes that the as-built seismic Category I piping of the UHSS and ESWS (portions outside the scope of the certified design), including supports, identified in FSAR Table 3.2-201 can withstand seismic design basis loads without a loss of its safety function.	RCOL2_14.03.07-29 CTS-01174
6.a The Class 1E components, identified in Table A.1-2, are powered from their respective Class 1E division.	6.a A ~~T~~tests will be performed on each division of the as-built ~~system~~Class 1E equipment identified in Table A.1-2 by providing a simulated test signal only in ~~each~~ the Class 1E division under test.	6.a The simulated test signal exists at the as-built Class 1E equipment identified in Table A.1-2, ~~under test in the as-built system~~	RCOL2_14.03.07-22

from RAI 174

Appendix A.1

Table A.1-1 (Sheet 4 of 6)

Ultimate Heat Sink System and Essential Service Water System (Portions Outside the Scope of the Certified Design) Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria	
6.a The Class 1E components, identified in Table A.1-2, are powered from their respective Class 1E division.	6.a Tests will be performed on the as-built system by providing a simulated test signal only in ~~each~~ the Class 1E division under test.	6.a The simulated test signal exists at the as-built Class 1E equipment identified in Table A.1-2 under test in the as-built system	RCOL2_14.03.07-22
6.b Separation is provided between Class 1E divisions, and between Class 1E divisions and non-Class 1E cable.	6.b Inspections of the as-built Class 1E divisional cables ~~and raceways~~ will be ~~conducted~~performed.	6.b ~~The as-built Class 1E electrical cables with only one division are routed in raceways assigned to the same division. There are no other safety division electrical cables in a raceway assigned to a different division.~~Physical separation or electrical isolation is provided between the as-built cables of Class 1E divisions and between Class 1E divisions and non-Class 1E cables.	RCOL2_14.03.07-4
7. ~~The system provides adequate heat removal capability transferred design heat load from the ESWS.~~The UHS system is capable of removing the maximum design heat load transferred from the ESWS.	7. ~~Tests and analyses of the as-built system will be performed.~~Tests and analyses to determine the heat removal capability of the as-built UHS system will be performed.	7. ~~A report exists and concludes that the as-built system provides adequate heat removal capability transferred design heat load~~A report exists and concludes that the as-built UHS system removes the maximum design heat load transferred from the ESWS while maintaining a UHS outlet temperature ≤ 95°F..	RCOL2_14.03.07-5 RCOL2_14.03.07-29
8. Controls exist in the MCR to open and close the remotely operated valves identified in Table A.1-2.	8. Tests will be performed on the as-built remotely operated valves listed in Table A.1-2 using controls in the MCR.	8. Controls in the MCR operate to open and close the as-built remotely operated valves listed in Table A.1-2.	
9.a The remotely operated valves, identified in Table A.1-2 to perform an active safety-related, function to change position as indicated in the table.	9.a.i Tests or type tests of the valves will be performed that demonstrate the capability of the valve to operate under its design conditions.	9.a.i Each valve changes position as indicated in Table A.1-2 under design conditions.	
	9.a.ii Tests of the as-built valves will be performed under pre-operational flow, differential pressure, and temperature conditions.	9.a.ii Each as-built valve changes position as indicated in Table A.1-2 under pre-operational test conditions.	

from UTR Rev 2

Appendix A.1

Table A.1-1 (Sheet 5 of 7)

Ultimate Heat Sink System and Essential Service Water System
(Portions Outside the Scope of the Certified Design)
Inspections, Tests, Analyses, and Acceptance Criteria

CTS change added words "during normal plant operations, abnormal and accident conditions of the plant" to the DC and AC. This was added to address the NRC's concern that we will perform the analysis for the maximum heat load under these conditions. Other ITAAC use similar language in the DCD.

The ITA column was also changed to add the condition under which the analysis will be performed. This change clarifies what the analysis will do and is consistent with improvements made to the DCD which the NRC has endorsed during the DCD Tier 1 improvement process. There are no technical changes.

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria	
	of the as-built Class 1 cables ~~and~~ ll be erformed.	6.b ~~The as-built Class 1E electrical cables with only one division are routed in raceways assigned to the same division. There are no other safety division electrical cables in a raceway assigned to a different division.~~ Physical separation or electrical isolation is provided in accordance with RG 1.75, between the as-built cables of redundant Class 1E divisions and between Class 1E cables and non-Class 1E cables.	RCOL2_14.03.07-4 CTS-01174
7. ~~The system provides adequate heat removal capability transferred design heat load from the ESWS.~~ The UHSS is capable of removing the maximum design heat load transferred from the ESWS during normal plant operations, abnormal and accident conditions of the plant.	7. ~~Tests and analyses of the as-built system will be performed.~~ Tests and analyses will be performed to determine the heat removal capability of the as-built UHSS. The analysis will consider that the maximum ESWS supply water temperature is 95° F under the peak heat load condition.	7. ~~A report exists and concludes that the as-built system provides adequate heat removal capability transferred design heat load~~ A report exists and concludes that the as-built UHSS removes the maximum design heat load transferred from the ESWS during normal plant operations, abnormal and accident conditions of the plant while maintaining a UHSS outlet temperature ≤ 95°F.	RCOL2_14.03.07-5 RCOL2_14.03.07-29 CTS-01174
8. Controls ~~exist~~are provided in the MCR to open and close the remotely operated valves identified in Table A.1-2.	8. Tests will be performed on the as-built remotely operated valves ~~listed~~identified in Table A.1-2 using controls in the as-built MCR.	8. Controls in the as-built MCR ~~operate to~~ open and close the as-built remotely operated valves ~~listed~~identified in Table A.1-2.	
9.a The remotely operated valves, identified in Table A.1-2 as having an active safety function ~~to~~ perform an active safety ~~related,~~ function to change position as indicated in the table.	9.a.i Type tests or a combination of type tests and analyses of the remotely operated valves identified in Table A.1-2 as having an active safety function will be performed that demonstrate the capability of the valve to operate under its design conditions.	9.a.i A report exists and concludes that ~~E~~each remotely operated valve identified in Table A.1-2 as having an active safety function changes position as indicated in Table A.1-2 under design conditions.	
	9.a.ii Tests of the as-built valves identified in Table A.1-2 as having an active safety function will be performed under pre-operational ~~flow,~~ differential pressure, ~~and~~ temperature, and flow conditions.	9.a.ii Each as-built remotely operated valve identified in Table A.1-2 as having an active safety function changes position as indicated in Table A.1-2 under pre-operational test conditions.	

from RAI 174

Appendix A.3

Table A.3-1 (Sheet 2 of 3)
UHSRS, ESWPT and PSFSV Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria	
5.a Flood barriers of the UHSRS, ESWPT and PSFSV are installed ~~up to the finished plant grade level to protect against water seepage~~consistent with the design bases for flood protection.	5.a ~~An inspection of the as-built flood barriers will be performed.~~An inspection of the as-built flood barriers will be performed.	5.a ~~he as-built flood barriers are installed up to the finished plant grade level for the UHSRS, ESWPT and PSFSV to protect against water seepage~~A report exists and concludes that the as-built flood barriers of the UHSRS, ESWPT, and PSFSV are installed consistent with the design bases for flood protection..	RCOL2_14.03.07-17 RCOL2_14.03.07-29
5.b Flood doors and flood barriers penetrations of the UHSRS, ESWPT and PSFSV are provided consistent with the design bases for flood protection~~with flood protection features~~.	5.b ~~Inspections of the as-built flood doors and flood penetrations will be performed.~~An inspection of the as-built flood doors and flood penetrations will be performed.	5.b ~~For the UHSRS, ESWPT and PSFSV, the as-built flood doors and flood barrier penetrations are provided with flood protection features to protect against water seepage .~~A report exists and concludes that the as-built flood doors and flood barriers penetrations of the UHSRS, ESWPT and PSFSV are provided consistent with the design bases for flood protection.	RCOL2_14.03.07-18 RCOL2_14.03.07-29
6. Penetrations in the external walls, including those up to the subgrade level if necessary, of the UHSRS, ESWPT and PSFSV are ~~provided with flood protection features below~~sealed up to the external flood level.	6. An inspection will be performed to verify that ~~the flood protection features~~ of the as-built penetrations in the external walls of the UHSRS, ESWPT and PSFSV ~~exist below~~are sealed up to the external flood level.	6. The as-built penetrations in the external walls, including those up to the subgrade level if necessary, of the UHSRS, ESWPT and PSFSV are ~~provided with flood protection features below~~sealed up to the external flood level.	RCOL2_14.03.07-12
7. Redundant safe shutdown components and associated electrical divisions of the UHSRS, ESWPT and PSFSV are separated by 3-hour rated fire barriers to preserve the capability to safely shutdown the plant following a fire. The 3-hour rated fire barriers are placed as required by the FHA.	7. An inspection of the as-built fire barriers will be performed.	7. Redundant safe shutdown components and associated electrical divisions of the as-built UHSRS, ESWPT and PSFSV are separated by 3-hour rated fire barriers to preserve the capability to safely shutdown the plant following a fire. The 3-hour rated as-built fire barriers are placed as required by the FHA.	

from UTR Rev 2

Appendix A.3

Table A.3-1 (Sheet 2 of 4)
UHSRS, ESWPT and PSFSV Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria	
3. ~~Penetrations in the divisional walls of the UHSRS, ESWPT and PSFSV except for~~	3. ~~An inspection of the as-built penetrations will be performed.~~Deleted	3. ~~The as-built penetrations in the divisional walls of the UHSRS, ESWPT and PSFSV are installed at an acceptable level above the floor, and are sealed up to the internal and external flooding levels.~~Deleted	RCOL2_14.0 3.07-11 CTS-01208
	spection will rmed ~~of~~to verify that s-built external walls v flood level ~~ness~~ for the UHSRS, PT and PSFSV ~~will erformed~~are as indicated in Table A.3-2.	4. For the UHSRS, ESWPT and PSFSV, the as-built external wall~~s~~ below flood level are as indicated in Table A.3-2 ~~below flood level are provided with adequate thickness~~ to protect against water seepage.	RCOL2_14.0 3.07-11 CTS-01174
5.a ~~Flood barriers of the UHSRS, ESWPT and PSFSV are installed up to the finished plant grade level to protect against water seepage.~~Deleted	5.a ~~An inspection of the as-built flood barriers will be performed.~~Deleted	5.a ~~he as-built flood barriers are installed up to the finished plant grade level for the UHSRS, ESWPT and PSFSV to protect against water seepage.~~Deleted	RCOL2_14.0 3.07-17 RCOL2_14.0 3.07-29 CTS-01208
5.b ~~Flood doors and flood barriers penetrations of the UHSRS, ESWPT and PSFSV are provided with flood protection features.~~Deleted	5.b ~~Inspections of the as-built flood doors and flood penetrations will be performed.~~Deleted	5.b ~~For the UHSRS, ESWPT and PSFSV, the as-built flood doors and flood barrier penetrations are provided with flood protection features to protect against water seepage.~~Deleted	RCOL2_14.0 3.07-29 RCOL2_14.0 3.07-18 CTS-01208
6. Penetrations in the external walls~~, including those up to the subgrade level if necessary,~~ of the UHSRS, ESWPT and PSFSV that are at or below design basis flood level are fitted with water-tight seals to protect against external flooding~~provided with flood protection features below flood level~~.	6. An inspection will be performed to verify that ~~the flood protection features of the~~ as-built penetrations in the external walls of the UHSRS, ESWPT and PSFSV ~~exist below flood level~~that are at or below design basis flood level are fitted with water-tight seals.	6. The as-built penetrations in the external walls of the UHSRS, ESWPT and PSFSV that are at or below design basis flood level are fitted with water-tight seals to protect against external flooding.~~of the UHSRS, ESWPT and PSFSV are provided with flood protection features below flood level.~~	RCOL2_14.0 3.07-12 CTS-01174

The flood report for these structures show no pathways for external flooding to occur (such as penetrations or other openings below external flood level). As a result, no external flood prevention measures are needed (such as water-tight doors or penetrations) and ITAAC Items 5.a and 5.b are no longer necessary.
Flood protection for internal flooding and between divisions is addressed by ITAAC 2.a in this same table(RAI 177).
This was not a technical change, but an update which resulted from evaluating the findings of the flooding report.

from RAI 175

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

Comanche Peak, Units 3 and 4

Luminant Generation Company LLC

Docket Nos. 52-034 and 52-035

RAI NO.: 5005 (CP RAI #175)

SRP SECTION: 14.03.07 - PLANT SYSTEMS - INSPECTIONS, TESTS, ANALYSES, AND ACCEPTANCE CRITERIA APPLICATION SECTION: PART 10, ITEMS 11 AND 12 IN TABLE A.1-1

QUESTIONS for Quality and Vendor Branch 1 (AP1000/EPR Projects) (CQVP)

DATE OF RAI ISSUE: 09/02/2010

QUESTION NO.: 14.03.07-30

The regulatory basis is for this question is 10 CFR 50.70 and 10 CFR 50, Appendix B, Criterion III, Design Control.

Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) Items 11 and 12 in Table A.1-1

The staff requested the applicant to revise ITAAC Items 11 and 12 and also Table A.1-3 in RAI question (RAI Number 81 (3293), Question 14.03.07-7 (13065)). The applicant in its response, dated November 13, 2009, made the following revisions: (a) ITAAC 11 in Table A.1-1 was revised to state that the Main Control Room (MCR) alarms and displays in Table A.1-3 can be retrieved, (b) ITAAC 12 in Table A.1-1 was revised to state that Remote Shutdown Console (RSC) alarms, displays, and controls identified in Table A.1-3 exist, and (c) Table A.1-3 was revised to correctly indicate all control functions, alarms, and displays in MCR and on RSC. The staff agreed with the majority of the applicant's response, but the staff did not agree with the following: (i) that MCR controls, displays, and alarms can be retrieved, and that RSC controls, displays, and alarms only exist, and (ii) inspections are being used to verify the proper functioning of controls. The staff requests that ITAAC Item 12 be revised to state that RSC controls, displays, and alarms can be retrieved at the RSC, and that both ITAAC Items 11 and 12 should be revised to require the performance of a combination of tests and inspections because inspections alone cannot verify the operation of controls.

ANSWER:

ITAAC Item 12 has been separated into two ITAAC, 12.a and 12.b. The DC for ITAAC Item 12.a has been revised to state that the RSC alarms and displays identified in Table A.1-3 can be

from RAI 175

retrieved on the RSC. The DC for ITAAC Item 12.b states that controls on the RSC operate the as-built pumps, fans, and valves identified in Table A.1-3. The ITA for ITAAC Item 12 has been separated to state that (a) inspection of the as-built alarms and displays will be performed, and (b) that tests will be performed on the RSC controls identified in Table A.1-3. Separate AC has been added for the tests in item 12b consistent with those for the MCR functions in ITAAC Items 8 and 10.a. This method is consistent with the latest DCD Tier 1 ITAAC.

Luminant has made similar changes to Table A.2-1 Item 7.

The DC for ITAAC Item 11 in Table A.1-1 does not specify control functions in the MCR. Instead the MCR control functions for the equipment identified in Table A.1-2 and repeated in Table A.1-3 are tested through ITAAC Items 8 and 10.a in Table A.1-1. This is consistent with the latest DCD Tier 1 ITAAC.

Impact on R-COLA

See attached marked-up COLA Part 10 Revision 1 Appendix A.1 page15 and Appendix A.2 page 23.

Impact on DCD

None.

from RAI 175

Appendix A.1

Table A.1-1 (Sheet 5 of 6)

Ultimate Heat Sink System and Essential Service Water System
(Portions Outside the Scope of the Certified Design)
Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria	
9.b The valves identified in Table A.1-2 as having PSMS control perform an active safety function after receiving a signal from PSMS. ~~Upon the receipt of ECCS actuation signal or UHS basin low water level signal, the blowdown control valve closes automatically.~~	9.b Tests will be performed on the as-built valves in Table A.1-2 using a simulated test signal.	9.b The as-built valves identified in Table A.1-2 as having PSMS control perform the active function identified in the table after receiving a simulated signal. ~~Upon the receipt of a simulated test signal, the as-built blowdown control valve closes automatically.~~	RCOL2_14.03.07-6
9.c After loss of motive power, the remotely operated valves, identified in Table A.1-2, assume the indicated loss of motive power position.	9.c Tests of the as-built valves will be performed under the conditions of loss of motive power.	9.c Upon loss of motive power, each as-built remotely operated valve identified in Table A.1 -2 assumes the indicated loss of motive power position.	
10.a Controls exist in the MCR to start and stop the pumps and fans identified in Table A.1-3.	10.a Tests will be performed on the as-built pumps and fans in Table A.1-3 using controls in the MCR.	10.a Controls in the MCR operate to start and stop the as-built pumps and fans listed in Table A.1-3.	
10.b The pumps and fans identified in Table A.1-2~~3 start after receiving a signal.~~ as having PSMS control perform as active safety function after receiving a signal from PSMS.	10.b Tests will be performed on the as-built pumps in Table A.1-2 using simulated signal.	10.b The as-built pump and fan identified in Table A.1 -2~~3 start~~ as having PSMS control perform the active function identified in the table after receiving a simulated signal.	RCOL2_14.03.07-6
11. MCR alarms and ~~D~~displays of the parameters identified in Table A.1-3 can be retrieved in the MCR.	11. Inspections will be performed for retrievability of the UHS system parameters in the as-built MCR.	11. ~~The~~MCR alarms and displays identified in Table A.1-3 can be retrieved in the as-built MCR.	RCOL2_14.03.07-7
12.a ~~Remote shutdown console (RSC) displays and/or controls provided for the system are identified in Table A.1-3.~~RCS alarms and displays of the parameters identified in Table A.1-3 can be retrieved on the RSC.	12.a ~~Inspections will be performed on the as-built RSC displays and/or controls for the system.~~Inspections will be performed for retrievability of the UHS and ESWS alarms and displays identified in Table A.1-3 on the as-built RSC.	12.a ~~Displays and/or controls exist on the as-built RSC as identified in Table A.1-3.~~Alarms and displays identified in Table A.1-3 can be retrieved on the as-built RSC.	RCOL2_14.03.07-7 RCOL2_14.03.07-30
12.b Controls on the RSC operate the as-built pumps, fans and valves identified in Table A.1-3.	12.b Tests will be performed on the as-built pumps, fans and valves identified in Table A.1-3 using controls on the asbuilt RSC.	12.b Controls on the RSC operate to open and close the as-built remotely operated valves and to start and stop the as-built pumps and fans identified in Table A.1-3.	
13. Each UHS basin has a volume to satisfy the thirty day cooling water supply criteria.	13. Inspections will be performed to verify the as-built UHS basins include sufficient volume of water.	13. The water volume of the each as-built UHS basin is greater than or equal to 3.12 x 10^6 gallons.	RCOL2_14.03.07-8

from UTR Rev 2

Comanche Peak Nuclear Power Plant, Units 3 & 4
COL Application
Part 10 - ITAAC and Proposed License Conditions

Appendix A.1

Table A.1-1 (Sheet 6 of 7)

Ultimate Heat Sink System and Essential Service Water System
(Portions Outside the Scope of the Certified Design)
Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria	
9.b The remotely operated valves identified in Table A.1-2 as having PSMS control perform an active safety function after receiving a signal from PSMS.~~Upon the receipt of ECCS actuation signal or UHS basin low water level signal, the blowdown control valve closes automatically.~~	9.b Tests will be performed on the as-built remotely operated valves identified in Table A.1-2 using a simulated test signal.	9.b The as-built remotely operated valves identified in Table A.1-2 as having PSMS control perform the active function identified in the table after receiving a simulated signal.~~Upon the receipt of a simulated test signal, the as-built blowdown control valve closes automatically.~~	RCOL2_14.03.07-6 CTS-01174
9.c After loss of motive power,	9.c Tests of the as-built valves 2 will be onditions .	9.c Upon loss of motive power, each as-built remotely operated valve identified in Table A.1 -2 assumes the indicated loss of motive power position.	
	d on the s 3 using	10.a Controls in the MCR ~~operate~~ to start and stop the as-built pumps and fans ~~listed~~identified in Table A.1-3.	CTS-01174
	d on the n Table signal.	10.b The as-built ~~pump and~~ fans identified in Table A.1 -2~~3~~ ~~start~~ as having PSMS control perform the active function identified in the table after receiving a simulated signal.	RCOL2_14.03.07-6 CTS-01174
~~retrieved~~are provided in the MCR.	ormed ~~system~~ ~~parameters in~~alarms and displays identified in Table A.1-3 the as-built MCR.	11. ~~The~~Alarms and displays identified in Table A.1-3 can be retrieved in the as-built MCR.	RCOL2_14.03.07-7 CTS-01174
12.a ~~Remote shutdown console (RSC) displays and/or controls provided for the system are identified in Table A.1-3 .~~Alarms, displays and controls identified in Table A.1-3 are provided in the RSC.	12.a ~~Inspections will be performed on the as-built RSC displays and/or controls for the system.~~Inspection will be performed for retrievability of the alarms and displays identified in Table A.1-3 in the as-built RSC.	12.a ~~Displays and/or controls exist on the as-built RSC as identified in Table A.1-3.~~Alarms and displays identified in Table A.1-3 can be retrieved in the as-built RSC.	RCOL2_14.03.07-7 RCOL2_14.03.07-30 CTS-01174
	12.b Tests of the as-built RSC control functions identified in Table A.1-3 will be performed.	12.b Controls on the RSC operate to open and close the as-built remotely operated valves and to start and stop the as-built pumps and fans identified in Table A.1-3 with an RSC control function..	RCOL2_14.03.07-30 CTS-01174

ITAAC 12.a, 12.b, 7.a and 7.b has been revised to be consistent with common language for all alarms, displays, and controls ITAAC in DCD and COLA. There are no technical changes.

The DC for 12.a and 12.b are combined and the design described using the words "are provided." The words "parameters," "as-built pumps, fans and valves" are deleted as they are unnecessary and the alarms, displays and controls are fully described by the reference to Table A.1-3. This is a more concise way to describe the design. Retrievability and functionality are appropriately addressed by ITA and AC of 12.a and 12.b.

The words "UHS and ESWS" are deleted from ITA for 12.a as they are redundant and add no value. In the ITA for 12.b, the words "pumps, fans and valves" are replaced with "control functions" identified in Table A.1-3 which is clearer and more concise. The words "with an RSC control function" were added to the AC for 12.b to clarify that this criteria applies only if the control function is listed in Table A.1-3. These clarifications do not involve any technical changes.

from RAI 175

Appendix A.2

Table A.2-1 (Sheet 2 of 2)
UHS ESW Pump House Ventilation System
Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria	
4. The UHS ESW pump house ventilation system ~~provides and~~ maintains area design temperature limits ~~the proper environmental conditions with~~in the respective room.	4. Tests and analyses of the as-built UHS ESW pump house ventilation system will be performed for all four divisions.	4. The as-built UHS ESW pump house ventilation system ~~provides and maintains the proper environmental conditions~~is capable of maintaining area design temperature limits within the respective room ~~by the exhaust fan and/or unit heater operation~~.	RCOL2_14.03 07-1 RCOL2 14.03 07-15
5.a. Controls exist in the MCR to start and stop the UHS ESW pump house ventilation system exhaust fans and unit heaters identified in Table A.2-3.	5.a. Tests will be performed on the as-built exhaust fans and unit heaters identified in Table A.2-3 using controls in the as-built MCR.	5.a Controls exist in the as-built MCR ~~operate~~ to start and stop the as-built UHS ESW pump house ventilation system exhaust fan and unit heaters identified in Table A.2-3.	RCOL2_14.03.07-16
5.b. The UHS ESW pump house ventilation system exhaust fans and unit heaters units identified in Table A.2-2~~3~~ as having PSMS control, perform as active safety function~~start~~ after receiving a signal from PSMS.	5.b. Tests of the as-built UHS ESW pump house ventilation system exhaust fans and unit heaters identified in Table A.2-2 will be performed using real or simulated signals.	5.b. The as-built UHS ESW pump house ventilation system exhaust fans and unit heaters identified in Table A.2-2~~3~~ as having PSMS control, perform an active safety function identified in the table ~~start~~ after receiving a simulated signal.	RCOL2_14.03.07-6
6. MCR alarms and ~~D~~displays of the ~~UHS ESW pump house ventilation system~~ parameters identified in Table A.2-3 can be retrieved in the MCR.	6. Inspections will be performed for retrievability of the as-built UHS ESW pump house ventilation system parameters in the as-built MCR.	6. ~~The~~MCR alarms and displays identified in Table A.2-3 can be retrieved in the as-built MCR.	RCOL2_14.03.07-7
7.a ~~Remote shutdown console (RSC) displays and/or controls provided for the UHS ESW pump house ventilation system are identified in Table A.2-3.~~RCS displays of the parameters identified in Table A.2-3 can be retrieved on the RSC.	7.a ~~Inspections will be performed on the as-built RSC displays and/or controls for the as-built UHS ESW pump house ventilation system.~~Inspections will be performed for retrievability of the displays identified in Table A.2-3 on the as-built RSC.	7.a ~~The displays and/or controls exist on the as-built RSC as identified in Table A.2-3.~~Displays identified in Table A.2-3 can be retrieved on the as-built RSC.	RCOL2_14.03.07-30
7.b Controls on the RSC operate the as-built fans and heaters identified in Table A.2-3.	7.b Tests will be performed on the as-built fans and heaters identified in Table A.2- 3 using controls on the as-built RSC.	7.b Controls on the RSC operate to energize and deenergize the as-built heaters and to start and stop the asbuilt fans identified in Table A.2-3.	

from UTR Rev 2

Appendix A.2

Table A.2-1 (Sheet 3 of 3)
UHS ESW Pump House Ventilation System
Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria	
5.b. The UHS ESW pump house ventilation system exhaust fans and unit heaters ~~units~~ identified in Table A.2-2~~3~~ as having PSMS control, perform as active safety function~~start~~ after receiving a signal from PSMS.	5.b. Tests will be performed on ~~of~~ the as-built UHS ESW pump house ventilation system exhaust fans and unit heaters identified in Table A.2-2 as having PSMS~~will be performed~~ using ~~real or~~ simulated signals.	5.b. The as-built UHS ESW pump house ventilation system exhaust fans and unit heaters identified in Table A.2-2~~3~~ as having PSMS control, perform an active safety function identified in the table ~~start~~ after receiving a simulated signal.	CTS-01174 RCOL2_14.03.07-6 CTS-01174
6. Displays of the ~~UHS ESW pump house ventilation system~~ parameters identified in Table A.2-3 ~~can be retrieved~~are provided in the MCR.	6. Inspections will be performed for retrievability of ~~the as-built UHS ESW pump house ventilation system parameters~~displays identified in Table A.2-3 in the as-built MCR.	6. ~~The d~~Displays identified in Table A.2-3 can be retrieved in the as-built MCR.	RCOL2_14.03.07-7 CTS-01174
7. ~~Remote shutdown console (RSC) displays and/or controls provided for the UHS ESW pump house ventilation system are identified in Table A.2-3.~~Displays and controls identified in Table A.2-3 are provided in the RSC.	7.a ~~Inspections will be performed on the as-built RSC displays and/or controls for the as-built UHS ESW pump house ventilation system.~~Inspections will be performed for retrievability of the displays identified in Table A.2-3 in the as-built RSC.	7.a ~~The displays and/or controls exist on the as-built RSC as identified in Table A.2-3.~~Displays identified in Table A.2-3 can be retrieved in the as-built RSC.	RCOL2_14.03.07-30 CTS-01174
	7.b Tests of the as-built RSC control functions identified in Table A.2-3 will be performed.	7.b Controls in the as-built RSC operate the as-built equipment identified in Table A.2-3 with an RSC control function.	

ITAAC 12.a, 12.b, 7.a and 7.b has been revised to be consistent with common language for all alarms, displays, and controls ITAAC in DCD and COLA. There are no technical changes.

The DC for 7.a and 7.b are combined and the design described using the words "are provided." This is a more concise way to describe the design. The words "parameters" and "as-built fans and heaters" are deleted as they are unnecessary and the displays and controls are fully described by the reference to Table A.2-3. Retrievability and functionality are appropriately addressed by ITA and AC of 7.a and 7.b.

In the ITA for 7.b, the words "fans and heaters" are replaced with "control functions" identified in Table A.2-3 which is clearer and more concise. The words "with an RSC control function" were added to the AC for 7.b to clarify that this criteria applies only if the control function is listed in Table A.2-3. Also on the AC for 7.b, the words "to energize and deenergize the as-built heaters and to start and stop the asbuilt fans" are replaced with "operate the as built equipment." This is more concise and flexible should Table A.2-3 be revised in the future. These clarifications do not involve any technical changes.

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

Comanche Peak, Units 3 and 4

Luminant Generation Company LLC

Docket Nos. 52-034 and 52-035

RAI NO.: 5029 (CP RAI #176)

SRP SECTION: 14.03.07 - Plant Systems - Inspections, Tests, Analyses, and Acceptance Criteria

QUESTIONS for Technical Specification Branch (CTSB)

DATE OF RAI ISSUE: 9/2/2010

QUESTION NO.: 14.03.07-31

Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) Item 6.a in Table A.1-1

The regulatory basis for this question is 10 CFR 50.70 and 10 CFR 50, Appendix B, Criterion III, Design Control.

The NRC staff had requested the applicant to revise this ITAAC because the ITAAC is concerned with powering the equipment in Table A.1-2 by certain Class 1E divisions; however, the ultimate heat sink basin blowdown control valves in Table A.1-2 are not categorized according to their respective Class 1E division. The applicant in its response indicated that the valves in question are numbered the same as their respective instrument controllers, and that Figure A.1-1 indicates that the valves are aligned downstream of the respective ESW pumps, which have division designations. While the NRC staff understands the position taken by the applicant, the staff requests the applicant explain why these hydraulically controlled valves are classified by a Class 1E designation.

ANSWER:

The safety function of the blowdown valve is to isolate essential service water blowdown to prevent the loss of the UHS basin water inventory upon receipt of a low basin water level signal or emergency core cooling system actuation signal. To fully address the functions displayed on Table A.1-2, the valves as depicted on Table A.1-2 include both the valves and the controls for the valves.

A solenoid valve actuates to operate the pneumatic actuator for the blowdown control valve. Upon receiving the low basin water level signal, emergency core cooling system actuation signal, or upon loss of power, the solenoid valve vents the air supply from the actuator, which allows the control valve to shut and preserve basin water level. The blowdown control valve is a fail close valve so that failure of the air supply system or that of the valve itself brings it to its closed position. The LOOP sequence (or blackout sequence) signal also actuates the solenoid valve to close the blowdown control valve. The solenoid

valve, control circuit, and circuit power supply are classified as Class 1E to assure valve closure upon demand. As such, it is appropriate to reflect this Class 1E designation in Table A.1-2.

Impact on R-COLA

None.

Impact on DCD

None.

This question and the response addressed Table A.1-2, an equipment characteristics table and no ITAAC changes were needed.

From RAI 177

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

Comanche Peak, Units 3 and 4

Luminant Generation Company LLC

Docket Nos. 52-034 and 52-035

RAI NO.: 5027 (CP RAI #177)

SRP SECTION: 14.03.07 - PLANT SYSTEMS - INSPECTIONS, TESTS, ANALYSES, AND ACCEPTANCE CRITERIA APPLICATION SECTION: PART 10, TABLE A.3-1, ITEMS 2.A AND 2.B

QUESTIONS for Quality and Vendor Branch 1 (AP1000/EPR Projects) (CQVP)

DATE OF RAI ISSUE: 09/09/2010

QUESTION NO.: 14.03.07-32

Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) Items 2.a and 2.b in Table A.3-1

The regulatory basis for this question is 10 CFR 50.70 and 10 CFR 50, Appendix B, Criterion III, Design Control.

The NRC staff requested the applicant to revise these ITAAC for RAI question 14.03.07-10 (RAI Number 81 (3293) Question 13068) because the AC of both of these ITAAC refer to the "appropriate locations" for either flood barriers and water-tight doors instead of actual locations or locations as shown on figures or as indicated in tables. The applicant in its response, dated November 13, 2009, revised both ITAAC to perform an inspection to verify the existence of reports that indicate the locations of the flood barriers and water-tight doors. The staff agreed in part with the applicant’s response in that the exact locations of the flood barriers and water-tight doors can be identified in a report similarly to figures and tables. Nevertheless, it is the staff's position that the inspections for both ITAAC are of the as-built installations in order to verify the locations and integrity of both the flood barriers and water-tight doors for ITAAC Items 2.a and 2.b in Table A.3-1, respectively not for the existence of reports. The applicant is requested to provide a response that addresses the staff's concerns.

From RAI 177

ANSWER:

The ITA for Items 2.a and 2.b have been revised to state that inspections of the as-built divisional flood barriers and water tight doors will be performed. This is consistent with the latest version of the DCD and the response provided in RAI 174.

Impact on R-COLA

See attached marked-up COLA Part 10 Revision 1 Appendix A.3 page 31.

Impact on DCD

None.

From RAI 177

Appendix A.3

Table A.3-1 (Sheet 1 of 3)
UHSRS, ESWPT and PSFSV Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria	
1. The structural configurations of the UHSRS, ESWPT and PSFSV are as described in Table A.3-2 as shown ~~in~~on FSAR Figures 3.8-201 through 3.8-214 ~~and Table A.3-2~~.	1. Inspections of the as-built structural configurations of the UHSRS, ESWPT and PSFSV will be performed.	1. The as-built ~~design configurations of the~~ UHSRS, ESWPT and PSFSV conform to the structural configurations as described in Table A.3-2 and as shown on ~~are reconciled with descriptions in~~ FSAR Figures 3.8-201 through 3.8-214 ~~and Table A.3-2~~.	RCOL2_14.03.07-9 RCOL2_14.03.07-9
2.a Divisional flood barriers are provided in the UHSRS, ESWPT and PSFSV to protect against the internal and external flooding.	2.a ~~An inspection will be performed to verify that the as-built divisional flood barriers exist in the UHSRS, ESWPT and PSFSV.~~ An inspection of the as-built divisional flood barriers in the UHSRS, ESWPT, and PSFSV will be performed.	2.a A report exists and concludes that ~~T~~the as-built divisional flood barriers ~~exist at the appropriate locations~~conform with the design bases for the protection against internal and external flooding in the UHSRS, ESWPT and PSFSV ~~against the internal and external flooding~~.	RCOL2_14.03.07-10 RCOL2_14.03.07-32
2.b Water-tight doors are provided in the UHSRS, ESWPT and PSFSV to protect against the internal and external flooding.	2.b ~~An inspection of the as-built water-tight doors will be performed.~~ An inspection of the as-built water-tight doors in the UHSRS, ESWPT, and PSFSV will be performed.	2.b A report exists and concludes that~~The~~ as-built water-tight doors ~~exist at the appropriate locations~~conform with the design bases for the protection against internal and external flooding in the UHSRS, ESWPT and PSFSV ~~against the internal and external flooding~~.	RCOL2_14.03.07-10
3. Penetrations in the divisional walls of the UHSRS, ESWPT and PSFSV, except for water-tight doors, are ~~provided appropriately against~~sealed up to the internal and external flooding levels.	3. An inspection of the as-built penetrations will be performed.	3. The as-built penetrations in the divisional walls of the UHSRS, ESWPT and PSFSV, except for watertight doors, ~~are installed at an acceptable level above the floor, and~~ are sealed up to the internal and external flooding levels.	RCOL2_14.03.07-11
4. For the UHSRS, ESWPT and PSFSV, external wall thicknesses are as indicated in Table A.3-2 below flood level ~~is provided~~ to protect against water seepage.	4. An inspection of the as-built external wall thickness for the UHSRS, ESWPT and PSFSV will be performed.	4. For the UHSRS, ESWPT and PSFSV, the as-built external wall~~s~~ thicknesses are as indicated in Table A.3-2 below flood level ~~are provided with adequate thickness~~ to protect against water seepage.	RCOL2_14.03.07-7

from UTR Rev 2

Appendix A.3

Table A.3-1 (Sheet 1 of 4)
UHSRS, ESWPT and PSFSV Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
1. The structural configurations of the UHSRS, ESWPT and PSFSV are as described in the Design Description of	1. Inspections will be performed to verify that ~~of~~ the as-built ~~structural configurations of the~~ UHSRS, ESWPT and	1. The as-built ~~design configurations of the~~ UHSRS, ESWPT and PSFSV conform to the structural configurations cribed in Table and as shown in ~~onciled with~~ ~~otions in~~ FSAR s 3.8-201 through ~~4 and Table A.3-2~~ e following uction tolerances.. ss of exterior walls lant grade: +12 1inch ss of exterior walls lant grade, and walls: +1/-1 inch ss of floors: +1/-1 ~~7.~~ Floor level: +1/-1 inch.
2.a Divisional flood barriers are provided in the UHSRS, ESWPT and PSFSV to protect against ~~the~~ internal ~~and external~~ flooding.	2.a.i ~~An inspection will be performed to verify that the as-built divisional flood barriers exist in the UHSRS, ESWPT and PSFSV.~~ An analysis will be performed to verify the as-built divisional flood barriers of the UHSRS, ESWPT and PSFSV are designed to protect against internal flooding	2.a.i A report exists and concludes that ~~T~~the as-built divisional flood barriers ~~exist at the appropriate locations~~ in the UHSRS, ESWPT and PSFSV ~~against the internal and external flooding~~are designed to protect against internal flooding.
	2.a.ii An inspection will be performed to verify that the as-built divisional flood barriers are provided in the UHSRS, EWSPT and PSFSV to protect against internal flooding.	2.a.ii As-built divisional flood barriers in the UHSRS, ESWPT and PSFSV are provided to protect against internal flooding.
2.b ~~Water tight doors are provided in the UHSRS, ESWPT and PSFSV to protect against the internal and external flooding.~~ Deleted	2.b ~~An inspection of the as-built water tight doors will be performed.~~ Deleted	2.b ~~The as-built water tight doors exist at the appropriate locations in the UHSRS, ESWPT and PSFSV against the internal and external flooding.~~ Deleted

RCOL2_14.0 3.07-9 CTS-01174

RCOL2_14.0 3.07-10
RCOL2_14.0 3.07-32 CTS-01174

RCOL2_14.0 3.07-10 CTS-01208

ITAAC 2.a was split into two ITAAC because the locations and design of the flood barriers for internal flooding is part of the detailed design and thus this information is not described in the FSAR . ITAAC 2.a.i provides the requirement that an analysis be completed first. ITAAC 2.a.ii provides that an inspection be performed to confirm that the as-built barriers are installed in accordance with the analysis.

The external flood report for these structures does not credit any doors or fire barriers in these structures for the flooding evaluation. As a result, an ITAAC item for water-tight doors is no longer necessary and ITAAC item 2.b is deleted. The only impact of external flooding is addressed by ITAAC item 6 which addresses penetrations in external walls. As such, the scope of ITAAC item 2.a is limited to internal flooding and external flooding was deleted from this item.

This was not a technical change, but an update which resulted from evaluating the findings of the external flooding report.

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

Comanche Peak, Units 3 and 4

Luminant Generation Company LLC

Docket Nos. 52-034 and 52-035

RAI NO.: 5099 (CP RAI #181)

SRP SECTION: 14.03.07 - Plant Systems - Inspections, Tests, Analyses, and Acceptance Criteria

QUESTIONS for Technical Specification Branch (CTSB)

DATE OF RAI ISSUE: 10/19/2010

QUESTION NO.: 14.03.07-33

Comanche Peak Nuclear Power Plant COLA, Part 10, ITAAC Items 5a and 5b in Table A.3-1.

The NRC staff requested the applicant to revise or delete ITAAC 5a in RAI Number 82 (3366), RAI question 14.03.07-17 (13282) because (1) the walls, referred to in ITAAC Item 4 in Table A.3-1, could have the appropriate thickness to decrease the water seepage to zero, and (2) an analysis may be required in addition to the inspection to determine the appropriate thickness of the flood barriers to decrease the seepage to a certain value. If the water seepage is decreased to zero due to the walls in ITAAC Item 4, it does not seem that there would be a need for Item 5a and its flood barriers. The staff requested the applicant revise ITAAC 5b in RAI Number 82 (3366), RAI question 14.03.07-18 (13283) to define the flood protection features. The applicant, in its response, revised ITAAC Items 5.a and 5.b to indicate that the flood barriers are installed consistent with the design bases for flood protection. Inspections are used for both ITAAC to verify the existence of reports that indicate that the flood barriers are installed correctly. The staff agreed in part with the applicant's response for both of these ITAAC in that the exact locations and physicality of the flood barriers can be identified in reports similarly to figures and tables, but not that the inspection for these ITAAC is for the existence of those reports, instead of the as-built installations to verify the locations and integrity of the flood barriers. The staff requests that the applicant revise these ITAAC to indicate that the inspections will be of the as- installed flood barriers and not for the existence of the respective reports.

ANSWER:

Luminant has revised each occurrence of the ITAAC that stated "an inspection for the existence of a report" as suggested by the NRC. Specifically Table A.1-1 Items 5.b.ii and 7, and Table A.3-1 Items 5.a and 5.b were revised in response to RAI No. 5004 (CP RAI #174) Question 14.03.07-29 (ML102810223).

Impact on R-COLA

None.

No new changes were made to ITAAC items as a result of this RAI question.

From RAI 211

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

Comanche Peak, Units 3 and 4

Luminant Generation Company LLC

Docket Nos. 52-034 and 52-035

RAI NO.: 5494 (CP RAI #211)

SRP SECTION: 14.03.12 - Physical Security Hardware - Inspections, Tests, Analyses, and Acceptance Criteria

QUESTIONS for Reactor Security Rulemaking and Licensing Branch (NSIR/DSP/RSRLB)

DATE OF RAI ISSUE: 3/16/2011

QUESTION NO.: 14.03.12-5

5. (U) Part 10, "ITAAC and Proposed License Conditions, Appendix C, Physical Security Hardware," Table C-1, "Physical Security Hardware Inspections, Tests, Analyses, and Acceptance Criteria," ITAAC Nos. 3.a and 3.b (Page 48) and Comanche Peak, Unit 3 and 4 Physical Security Hardware ITAAC Abstracts," submitted by letter dated December 9, 2010, Section 3.4, "ITAAC #3.a.ii and #3.b.ii (Isolation Zone)," (Pages 4-5) and ITAAC Nos. 16.a-2 and 16.b-2 (Page 52) and Comanche Peak Unit 3 and 4 Physical Security Hardware ITAAC Abstracts," submitted by letter dated December 9, 2010, Section 3.26, "ITAAC #16.a.ii and #16.b.ii (SAS Communications)," (Pages 16-17): Identify physical security hardware ITTAC conforming to NUREG 0800, Standard Review Plan (SRP) 14.3.12, as ITAAC No. 3(c) and No. 16(c) in Table C-1, "Physical Security Hardware inspections, Test, Analyses, and Acceptance Criteria [6 sheets]." Specifically, identify ITAAC No. 3(c) which establishes design commitments, ITA, and acceptance criteria for areas where permanent buildings do not allow sufficient observation distance between the intrusion detection system and the protected area barrier (e.g., the building walls are immediately adjacent to, or are an integral part of the protected area barrier) will be monitored with intrusion detection and assessment equipment that is designed to detect the attempted or actual penetration of the protected area perimeter barrier before completed penetration of the barrier and assessment of detected activities. The ITAAC No. 16(c) establishes to the verification that nonportable communications equipment in the secondary alarm stations (which is outside the scope of the US-APWR DCD) will remain operable from an independent power source in the event of loss of normal power. In addition, provide the appropriate description of supporting test abstracts.

(U) Regulatory Basis: Subpart C, Title 10 CFR 52.80 requires that the application must contain the proposed inspections, tests, and analyses, and acceptance criteria that are necessary and sufficient to provide reasonable assurance that, if the inspections, tests, and analyses are performed and the acceptance criteria are met, the facility has been constructed and will be operated in conformity with the combined license, the provisions of the Act, and the Commission’s rules and regulations. The USAPWR DCD COL information item 14.3(3) requires that COL applicant identify site specifics ITAAC. The test abstract objectives and test method adequately addressed the verification of both the CAS and SAS capability to continuous communications with security personnel and remain functional when operating on uninterruptible backup power supply upon loss of normal power. Part 10, Appendix C, Table C-1, did not identify the specific design commitments as a site specific physical security ITAAC conforming to SRP

From RAI 211

14.3.12. The revisions to the US-APWR DCD include reserved ITAAC that conforms with SRP 14.3.12, ITAAC No. 3(c) and 16(c), which are to be addressed as COL Information Item 14.3(3). Test abstract in Section 3.26, describe verification of the continued capabilities for communications with loss of normal power, but does not specifically identify ITAAC that conforms with SRP 14.3.12, ITAAC No. 16(c). Table C-1, "Physical Security Hardware Inspections, Tests, Analyses, and Acceptance Criteria," has not been updated with supporting test abstracts.

ANSWER:

COLA Part 10, Appendix C, Table C-1 has been revised to include the new ITAAC based on SRP 14.3.12, Revision 1, including the addition of:

ITAAC #3.c

ITAAC #11.c-2

ITAAC #16.c-2.

“Comanche Peak Unit 3 and 4 Physical Security Hardware ITAAC Abstracts” has been revised based on the physical security ITAAC from SRP 14.3.12, Revision 1, including the addition of:

ITAAC #3.c

ITAAC #11.c.ii

ITAAC #16.c.i

ITAAC 16.c.ii.

Impact on R-COLA

See attached marked-up Part 10 Revision 1 pages 80, 83 and 84.

Impact on S-COLA

None.

Impact on DCD

None.

From RAI 211

Appendix C

Table C-1 (Sheet 2 of 5)
Physical Security Hardware Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
3.c Areas where permanent buildings do not allow a minimum of 20 feet observation distance between the intrusion detection system and the protected area barriers are monitored with intrusion detection and assessment equipment that detect and assess the attempted or actual penetration of the protected area perimeter barrier before completed penetration of the barrier.	3.c Inspections of the intrusion detection equipment for areas of the protected area perimeter barrier that do not have isolation zones will be performed.	3.c Areas where permanent buildings do not allow a minimum of 20 feet observation distance between the intrusion detection system and the protected area barrier are monitored with intrusion detection and assessment equipment that detect and assess attempted or actual penetration of the protected area perimeter barrier before completed penetration of the barrier.
4.a Intrusion detection system (IDS) can detect penetration or attempted penetration of the protected area perimeter barrier and subsequent alarms annunciate concurrently in at least two continuously manned onsite alarms stations, (central and secondary alarm stations).	4.a Tests, inspections or a combination of tests and inspections of the intrusion detection system will be performed.	4.a The intrusion detection system can detect penetration or attempted penetration of the protected area perimeter barrier and subsequent alarms annunciate concurrently in at least two continuously manned onsite alarms stations, (central and secondary alarm stations).
4.b Video image recording equipment with real-time and play-back capability provides the ability to assess detected assessment activities before and after each alarm annunciation within the isolation zone.	4.b Tests, inspections or a combination of tests and inspections of the video assessment equipment will be performed.	4.b Video image recording equipment with real-time and play-back capability provide the ability to display activities before and after each alarm annunciation within the isolation zone.
4.c Intrusion detection and assessment equipment at the protected area perimeter remains operable from an uninterruptible power supply in the event of the loss of normal power.	4.c Tests, inspections or a combination of tests and inspections of the uninterruptible power supply will be performed.	4.c Intrusion detection and assessment equipment at the protected area perimeter remains operable from an uninterruptible power supply in the event of the loss of normal power.
5. Isolation zones and exterior areas within the protected area are provided with illumination to permit observation of abnormal presence or activity of persons or vehicles.	5. Inspections of the Illumination in isolation zones and exterior areas of the protected will be performed.	5. Illumination in isolation zones and exterior areas within the protected area is 0.2 foot-candles measured horizontally at ground level or, alternatively, sufficient to permit observation.

RCOL2_14.03.12-5

From UTR R2

Appendix C

Table C-1 (Sheet 2 of 7)
Physical Security Hardware Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria	
3.b ~~Where permanent buildings do not allow a sufficient distance for observation on the inside of the protected area, the building walls are immediately adjacent to, or an integral part of, the protected area barrier, and the (license applicant specified) observation distance does not apply.~~Isolation zones are	3.b ~~Inspections of the part of the building that constitutes the protected area will be performed.~~The intrusion detection equipment for monitoring the isolation zones will be inspected.	3.b ~~Where permanent buildings do not allow a 20 feet distance on the inside of the protected area, the building walls are immediately adjacent to, or an integral part of, the protected area barrier and the 20 feet observation distance does not apply.~~Isolation zones are monitored by intrusion detection	CTS-01174
zone.			
3.c Areas where permanent buildings do not allow sufficient observation distance between the intrusion detection system and the protected area barriers (e.g., the building walls are immediately adjacent to, or are an integral part of the protected area barrier) are monitored with intrusion detection and assessment equipment that is designed to detect and assess the attempted or actual penetration of the protected area perimeter barrier before completed penetration of the barrier.	3.c Inspections of the areas of the protected area perimeter barrier that do not have isolation zones will be performed.	3.c Areas where permanent buildings do not allow a minimum of 20 feet observation distance between the intrusion detection system and the protected area barrier (e.g., the building walls are immediately adjacent to, or are an integral part of the protected area barrier) are monitored with intrusion detection and assessment equipment that detect and assess attempted or actual penetration of the protected area perimeter barrier before completed penetration of the barrier.	RCOL2_14.03.12-5 CTS-01174
4.a The ~~Intrusion~~perimeter instrusion detection system (IDS) can detect penetration or attempted penetration of the protected area perimeter barrier and subsequent alarms annunciate concurrently in at least two continuously manned onsite alarms stations~~, (central and secondary alarm stations)~~.	4.a Tests, inspections, or a combination of tests and inspections of the intrusion detection system will be performed.	4.a The ~~intrusion detection system~~IDS can detect penetration or attempted penetration of the protected area perimeter barrier before completed penetration of the barrier, and subsequent alarms annunciate concurrently in at least two continuously manned onsite alarms stations~~, (central and secondary alarm stations)~~.	

The DC of this ITAAC 3.c was revised to be consistent with SRP 14.3.12 revision 1. The minimum observation distance was replaced with the word "sufficient." This is a more flexible method of describing the design and the specific observation distance is contained elsewhere in the licensing basis. The minimum observation distance within the AC remains as it was in the RAI response. No technical changes were made.

From RAI 211

Appendix C

Table C-1 (Sheet 4 of 5)
Physical Security Hardware Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria	
11.b-2 The secondary alarm station is located inside a protected area and the interior of the secondary alarm station is not visible from the perimeter of the protected area	11.b-2 Inspections of the secondary alarm station locations will be performed.	11.b-2 The secondary alarm station is located inside a protected area and the interior of the secondary alarm station is not visible from the perimeter of the protected area.	
11.c-2 The alarm system will not allow the status of a detection point, locking mechanism or access control device to be changed by the secondary alarm station without the knowledge and concurrence of the central alarm station.	11.b-2 Tests, inspections, or a combination of tests and inspections of intrusion detection equipment and access control equipment will be performed.	11.b-2 The alarm system will not allow the status of a detection point, locking mechanism or access control device to be changed by the secondary alarm station operator without the knowledge and concurrence of the alarm station operator in the central alarm station.	RCOL2_ 14.03.12-5
11.~~c~~d Central and secondary alarm stations are designed and equipped such that, in the event of a single act, in accordance with the design basis threat of radiological sabotage, the design enables the survivability of equipment needed to maintain the functional capability of either alarm station to: (1) detect and assess alarms (2) initiate and coordinate an adequate response to alarms (3) summon offsite assistance, and (4) provide effective command and control.	11.~~c~~d Tests, inspections or a combination of tests and inspections of the central and secondary alarm stations will be performed.	11.~~c~~d Central and secondary alarm stations are designed, equipped and constructed such that , in the event of a single act, in accordance with the design basis threat of radiological sabotage, the design enables the survivability of equipment needed to maintain the functional capability of either alarm station to: (1) detect and assess alarms (2) initiate and coordinate an adequate response to alarms (3) summon offsite assistance, and (4) provide effective command and control.	
11.~~d~~e Both the central and secondary alarm stations are constructed, protected, and equipped to the standards for the central alarm station (stations need not be identical in design).	11.~~d~~e Tests, inspections or a combination of tests and inspections of the central and secondary alarm stations will be performed.	11.~~d~~e The central alarm station and secondary alarm station are constructed, protected, and equipped to the same standards for functional redundancy (stations need not be identical in design).	RCOL2_ 14.03.12-5
13.b-2 Intrusion detection and assessment systems are designed to provide visual display and audible annunciation in the secondary alarm station.	13.b-2 Tests will be performed on Intrusion detection and assessment systems.	13.b-2 The intrusion detection system provides a visual display and audible annunciation of alarms in the secondary alarm station.	

From UTR R2

Appendix C

Table C-1 (Sheet 5 of 7)
Physical Security Hardware Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria	
10.b Unoccupied vital areas are locked and alarmed with activated intrusion detection systems that annunciate in the secondary alarm station.	10.b Tests, inspections, or a combination of tests and inspections of unoccupied vital areas intrusion detection equipment and locking devices will be performed.	10.b Unoccupied vital areas are locked and intrusion is detected and annunciated in the secondary alarm station.	
11.a ~~-2~~.ii Security alarm annunciation and video assessment information are available in the secondary alarm station concurrently ~~in the secondary alarm station~~with the	11.a ~~-2~~.ii Tests, inspections or a combination of tests and inspections of alarm annunciation and video assessment equipment will be performed.	11.a ~~-2~~.ii Security alarm annunciation and video assessment equipment information is available ~~concurrently~~ in the secondary alarm station concurrently with	CTS-01174
11.c.i The alarm system will not allow the status of a detection point, locking mechanism or access control device to be changed from the central alarm station without the knowledge and concurrence of the secondary alarm station operator.	11.c.i Tests, inspections, or a combination of intrusion detection equipment and access control equipment will be performed.	11.c.i The alarm system will not allow the status of a detection point, locking mechanism or access control device to be changed from the central alarm station without the knowledge and concurrence secondary alarm station operator.	CTS-01174
11.c.ii The alarm system will not allow the status of a detection point, locking mechanism or access control device to be changed from the secondary alarm station without the knowledge and concurrence of the central alarm station operator.	11.c.ii Tests, inspection, or a combination of tests and inspections of intrusion detection equipment and access control equipment will be performed.	11.c.ii The alarm system will not allow the status of a detection point, locking mechanism or access control device to be changed from the secondary alarm station without the knowledge and concurrence of the alarm station operator in the central alarm station operator.	RCOL2_14.03.12-5 CTS-01174

ITAAC 11.c.2. CTS change was made to the DC as, "without the knowledge and concurrence of the central alarm station operator." An editorial error within the AC was found, but should read identical to the DC. No technical changes were made.

The item 11.c-2 was split into two items (11.c.i and 11.c.ii) to address the Secondary alarm station and the central alarm station separately. "Operator" was added at the end of the DC and AC because the item is tied to the awareness of the operator at the station and not the station itself.

From RAI 211

Appendix C

Table C-1 (Sheet 5 of 5)
Physical Security Hardware Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
15.b Emergency exits through the protected area perimeter are alarmed and secured by locking devices that allow prompt egress during an emergency.	15.b Tests, inspections or a combination of tests and inspections of emergency exits through the protected area perimeter will be performed.	15.b Emergency exits through the protected area perimeter are alarmed and secured by locking devices that allow prompt egress during an emergency.
16.a-2 The secondary alarm station has conventional (land line) telephone service with local law enforcement authorities and a system for communication with the main control room.	16.a-2 Tests, inspections, or a combination of tests and inspections of the secondary alarm station communications capability with local law enforcement authorities and main control room will be performed	16.a-2 The secondary alarm station is equipped with conventional (land line) telephone service with local law enforcement authorities and has a system for continuous communication with the main control room.
16.b-2 The secondary alarm station is capable of continuous communication with security personnel.	16.b-2 Tests, inspections, or a combination of tests and inspections of the secondary alarm station continuous communication capabilities will be performed.	16.b-2 The secondary alarm station is capable of continuous communication with security officers, watchmen or armed response individuals, or other security personnel that have responsibilities during a contingency event.
16.c-2 Nonportable communications equipment in the secondary alarm station will remain operable from an independent power source in the event of loss of normal power.	16.c-2 Tests, inspections, or a combination of tests and inspections of the nonportable communications equipment will be performed.	16.c-2 Nonportable communication devices in the secondary alarm station are wired to an independent power supply that enables those systems to remain operable, without disruption, during the loss of normal power.

RCOL2_ 14.03.12-5

From UTR R2

Appendix C

Table C-1 (Sheet 7 of 7)
Physical Security Hardware Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria	
16.b ~~2~~.ii The secondary alarm station is capable of continuous communication with security personnel.	16.b ~~2~~.ii Tests, inspections, or a combination of tests and inspections of the secondary alarm station continuous communication capabilities will be performed.	16.b ~~2~~.ii The secondary alarm station is capable of continuous communication with on-duty watchmen, armed security officers, ~~watchmen or~~ armed ~~response individuals~~responders, or other security personnel that have responsibilities within the physical protection program and during ~~a~~ contingency response events.	CTS-01174
16.c.ii Nonportable communications equipment in the secondary alarm station will remain operational from an independent power source in the event of loss of normal power.	16.c.ii Tests, inspections, or a combination of tests and inspections of the nonportable communications equipment will be performed.	16.c.ii Nonportable communication devices (including conventional telephone systems) in the secondary alarm station are wired to an independent power supply that enables those systems to remain operable, without disruption, during the loss of normal power.	RCOL2_14.03.12-5 CTS-01174

ITAAC 16.c.ii. CTS change was made to the AC as, "(including conventional telephone system)" to be consistent with the latest SRP and the US-APWR Tier 1. The item number was changed from 16.c-2 to 16.c.ii to be consistent with the US-APWR Tier 1 and the numbering of ITAAC in Part 10 of the COLA. No technical changes were made.