

PMComanchePekNPEm Resource

From: Monarque, Stephen
Sent: Sunday, December 13, 2009 7:52 PM
To: ComanchePeakCOL Resource
Subject: FW: COLA Part 10 Update Tracking Report non-public pending SUNSI review
Attachments: TXNB-09080 COLA Part 10 UTR Rev 0.pdf

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Sent: Thursday, December 10, 2009 5:45 PM
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Cc: James.Hill2@luminant.com
Subject: COLA Part 10 Update Tracking Report

Luminant has submitted the attached COLA Part 10 Update Tracking Report to the NRC. This UTR adds descriptions of site-specific systems, structures, and the offsite power system to Appendices A.1 through A.4 of Part 10. If there are any questions regarding this submittal, please contact me or contact Don Woodlan (254-897-6887, Donald.Woodlan@luminant.com).

Thanks,

John Conly

Luminant
COLA Project Manager
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December 10, 2009

U. S. Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555
ATTN: David B. Matthews, Director
Division of New Reactor Licensing

SUBJECT: COMANCHE PEAK NUCLEAR POWER PLANT, UNITS 3 AND 4
DOCKET NUMBERS 52-034 AND 52-035
COMBINED LICENSE APPLICATION PART 10, ITAAC AND PROPOSED LICENSE
CONDITIONS REVISION 1, UPDATE TRACKING REPORT REVISION 0

Dear Sir:

Luminant Generation Company LLC (Luminant) herein submits the first Update Tracking Report (UTR) for Part 10 of the Combined License (COL) Application for Comanche Peak Nuclear Power Plant Units 3 and 4, Revision 1. This UTR adds descriptions of site-specific systems, structures, and the offsite power system to Appendices A.1 through A.4 of Part 10.

Should you have any questions regarding this submittal, please contact Don Woodlan (254-897-6887, Donald.Woodlan@luminant.com) or me.

There are no commitments in this letter.

I state under penalty of perjury that the foregoing is true and correct.

Executed on December 10, 2009.

Sincerely,

Luminant Generation Company LLC

Rafael Flores

Attachment: COL Application Part 10, ITAAC and Proposed License Conditions Revision 1,
Update Tracking Report Revision 0

Electronic distribution w/ attachment

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Attachment 1

COL Application Part 10, ITAAC and Proposed License Conditions Revision 1, Update Tracking Report Revision 0

(This attachment includes marked-up COLA Part 10 pages 6, 7, 18, 19, 24, 25, 26, and 30. Because of text additions and deletions, the page numbers on the marked-up pages may not coincide with the page numbers in COLA Part 10 Revision 1.)

December 8, 2009

**Comanche Peak Nuclear Power Plant, Units 3 & 4
COL Application**

Part 10

**ITAAC and Proposed License Conditions
Revision1**

**Update Tracking Report
Revision 0**

Revision History

Revision	Date	Update Description
-	11/20/2009	COLA Revision 1 Transmittal See Luminant Letter no. TXNB-09074 Date 11/20/2009
-	10/19/2009	Updated Section: Appendix A.5 See Luminant Letter no. TXNB-09055 Date 10/19/2009 Incorporated responses to following RAIs: No. 50
-	10/26/2009	Updated Section: Appendix A.1 See Luminant Letter no. TXNB-09058 Date 10/26/2009 Incorporated responses to following RAIs: No. 56
-	11/13/2009	Updated Section: Appendix A.1, Appendix A.2, Appendix A.3 See Luminant Letter no. TXNB-09065 Date 11/13/2009 Incorporated responses to following RAIs: No. 81, 82, 83
-	11/18/2009	Updated Section: 2, 3, Appendix B.1 See Luminant Letter no. TXNB-09072 Date 11/18/2009 Incorporated responses to following RAIs: No. 70, 78
0	12/8/2009	Updated Sections: Appendix A.1, A.2, A.3, A.4 Incorporated the response to RAI No.83

Tracking Report Revision List

Change ID No.	Section	ITAAC Rev.1 Page	Reason for change	Change Summary	Rev. of T/R
RCOL2_11.05-2	Appendix A.5	29	Response to RAI No. 50 Luminant Letter no.TXNB-09055 Date 10/19/2009	Newly added Appendix A.5.	-
RCOL2_14.03.03-1	Appendix A.1 Table A1-1 (Sheet 1 of 6)	9	Response to RAI No.56 TXNB-09058 Date 10/26/2009	Revised 2.a and split into two new ITAAC (2.a.i and 2.a.ii)	1
RCOL2_14.03.03-2	Appendix A.1 Table A1-1 (Sheet 2 of 6)	10	Response to RAI No.56 TXNB-09058 Date 10/26/2009	Revised 2.b and split into two new ITAAC (2.b.i and 2.b.ii)	1
RCOL2_14.03.03-3	Appendix A.1 Table A1-1 (Sheet 2, 3 of 6)	10,11	Response to RAI No.56 TXNB-09058 Date 10/26/2009	ITAAC items 3.a and 3.b were revised to state "a report exists"	1
RCOL2_14.03.03-4	Appendix A.1 Table A1-1 (Sheet 4 of 6)	12	Response to RAI No.56 TXNB-09058 Date 10/26/2009	Revised ITAAC item 5.b to include new ITA and AC 5.b.i and 5.b.ii.	1
RCOL2_13.03-2 RCOL2_13.03-8	2.6	4	Response to RAI No. 78 Luminant Letter no.TXNB-09066 Date 11/12/2009	Added Emergency Planning Action – See RAI# 70	-
RCOL2_14.03.07-1	Appendix A.1 Table A.1-1 (Sheet 1 of 6)	8	Response to RAI No.81 Luminant Letter no. TXNB-09065 on 11/13/2009	ITAAC Item 1.b in Table A.1-1 has been revised to be consistent with the DCD Tier 1 revision	-
RCOL2_14.03.07-3	Appendix A.1 Table A.1-1 (Sheet 3 of 6), Appendix A.2 Table A.2-1 (Sheet 1 of 2)	10, 20	Response to RAI No.81 Luminant Letter no. TXNB-09065 on 11/13/2009	Revised ITAAC items 5.a. ITAAC item 5.b already revised to reflect answer in	-

Change ID No.	Section	ITAAC Rev.1 Page	Reason for change	Change Summary	Rev. of T/R
RCOL2_14.03.07-4	Appendix A.1, Table A.1-1 (Sheet 5 of 6), Appendix A.2 Table A.2-1 (Sheet 2 of 2)	12, 21	Response to RAI No.81 Luminant Letter no. TXNB-09065 on 11/13/2009	ITAAC Item 6.b in Table A.1-1 and Item 3.b in Table A.2-1 have been revised to be consistent with the similar ITAAC in DCD Tier 1.	-
RCOL2_14.03.07-5	Appendix A.1 Table A.1-1 (Sheet 5 of 6)	12	Response to RAI No.81 Luminant Letter no. TXNB-09065 on 11/13/2009	ITAAC Item 7 in Table A.1-1 has been revised to refer to Table A.1-2	-
RCOL2_14.03.07-6	Appendix A.1 Table A.1-1 (Sheet 6 and of 7) Table A.1-2, Appendix A.2 Table A.2-2	13, 15, 16, 21, 23	Response to RAI No.81 Luminant Letter no. TXNB-09065 on 11/13/2009	Table A.1-1 ITAAC Items 9.b, 10.b, and Table A2.1 ITAAC Item 5.b have been revised to be consistent with the DCD template for "PSMS Control." Table A.1-2 and Tables A.2-2 have added a PSMS Control column.	-
RCOL2_14.03.07-7	Appendix A.1, Table A.1-1 (Sheet 7 of 7) Table A.1-3, Appendix A.2 Table A.2-1 (Sheet 2 of 2) Table A.2-3	14, 17, 21, 22, 23, 24	Response to RAI No.81 Luminant Letter no. TXNB-09065 on 11/13/2009	Table A.1-3 "MCR/RSC Control" entries Table A.2-1, ITAAC Item 6 Table A.2-1, ITAAC Item 7 Table A.2-2 includes the temperature indicators for the UHS pump houses. Table A.2-3 has been revised to be consistent with DCD Table A.2-3 temperature indicators have been deleted	-
RCOL2_14.03.07-8	Appendix A.1 Table A.1-1 (Sheet 7 of 7)	14	Response to RAI No.81 Luminant Letter no. TXNB-09065 on 11/13/2009	ITAAC item 13 has been revised to indicate that the basins are part of the UHS system.	-

Change ID No.	Section	ITAAC Rev.1 Page	Reason for change	Change Summary	Rev. of T/R
RCOL2_14.03.07-9	Appendix A.3 Table A.3-1 (Sheet 2 of 3)	27	Response to RAI No.81 Luminant Letter no. TXNB-09065 on 11/13/2009	Language corrections	-
RCOL2_14.03.07-10	Appendix A.3 Table A.3-1 (Sheet 1 of 3)	27	Response to RAI No.81 Luminant Letter no. TXNB-09065 on 11/13/2009	COLA Part 10, Table A.3-1, ITAAC Items 2.a and 2.b have been revised to address the design bases for protection against internal and external flooding.	-
RCOL2_14.03.07-11	Appendix A.3 Table A.3-1 (Sheet 1 of 3)	27	Response to RAI No.81 Luminant Letter no. TXNB-09065 on 11/13/2009	Table A.3-1, ITAAC Item 4 has been revised to specify the wall thickness by reference to the thicknesses indicated in Table A.3-2, thereby providing measurable acceptance criteria.	-
RCOL2_14.03.07-12	Appendix A.3 Table A.3-1 (Sheet 2 of 3)	28	Response to RAI No.81 Luminant Letter no. TXNB-09065 on 11/13/2009	Table A.3-1, ITAAC Items 6, 7, and 8 have been revised Also provides answer to RAI 82-3366, Question No. 14.03.07-19	-
RCOL2_14.03.07-14	Appendix A.1 Table A.1-1 (Sheet 7 of 7)	14	Response to RAI No.82 Luminant Letter no. TXNB-09065 on 11/13/2009	ITAAC Item 14 in ITAAC Table A.1-1 has been revised into two ITAACs (14.a and 14.b)	-
RCOL2_14.03.07-15	Appendix A.2 Table A.2-1 (Sheet 2 of 2)	21	Response to RAI No.82 Luminant Letter no. TXNB-09065 on 11/13/2009	ITAAC Table A.2-1 ITAAC Item 4 Design Commitment and acceptance criteria has been clarified	-
RCOL2_14.03.07-16	Appendix A.2 Table A.2-1 (Sheet 2 of 2)	21	Response to RAI No.82 Luminant Letter no. TXNB-09065 on 11/13/2009	ITAAC Table A.2-1 ITAAC Item 5.a acceptance criteria have been clarified	-
RCOL2_14.03.07-17	Appendix A.3 Table A.3-1 (Sheet 2 of 3)	28	Response to RAI No.82 Luminant Letter no. TXNB-09065 on 11/13/2009	ITAAC Item 5.a in Table A.3-1 has been revised to require documentation to demonstrate consistency	-

Change ID No.	Section	ITAAC Rev.1 Page	Reason for change	Change Summary	Rev. of T/R
RCOL2_14.03.07-18	Appendix A.3 Table A.3-1 (Sheet 2 of 3)	28	Response to RAI No.82 Luminant Letter no. TXNB-09065 on 11/13/2009	ITAAC Item 5.b in Table A.3-1 has been revised to require documentation to demonstrate consistency	-
RCOL2_14.03.07-19	Appendix A.3 Table A.3-1 (Sheet 2 of 3)	28	Response to RAI No.82 Luminant Letter no. TXNB-09065 on 11/13/2009	Appendix A.3, Table A.3-1, ITAAC Item 8 acceptance criteria have been clarified	-
RCOL2_14.03.07-20	Appendix A.3 Table A.3-1 (Sheet 3 of 3)	29	Response to RAI No.82 Luminant Letter no. TXNB-09065 on 11/13/2009	Appendix A.3, Table A.3-1, ITAAC Item 9 Inspections, Tests, Analyses (ITA) has been clarified	-
RCOL2_14.03.07-21	Appendix A.2 Table A.2-2	23	Response to RAI No.83 Luminant Letter no. TXNB-09065 on 11/13/2009	Table A.2-2 has been revised to add the UHS ESW pump house supply and exhaust backdraft dampers.	-
RCOL2_14.03.07-22	Appendix A.1 Table A.1-1 (Sheet 4 of 6), Appendix A.2 Table A.2-1 (Sheet 2 of 2)	11, 20	Response to RAI No.83 Luminant Letter no. TXNB-09065 on 11/13/2009	Table A.1-1 ITAAC Item 6.a, and Table A.2-1 Item 3.a have been revised to be consistent with similar DCD ITAAC	-
RCOL2_14.03.07-27	Appendix A.2 Table A.2-3	24	Response to RAI No.83 Luminant Letter no. TXNB-09065 on 11/13/2009	The temperature switches in the last two columns of Table A.2-3 have been deleted. The revised ITAAC Table A.2-3 also incorporates the recommended changes for RAI 81-3293, Question No. 14.03.07-6.	-
RCOL2_13.03-1	2.6	4	Response to RAI No. 70 Luminant Letter no.TXNB-09072 Date 11/18/2009	Added Section "2.6 Emergency Planning Actions" and revised subsequent section numbers accordingly.	-
RCOL2_13.03-1	3	5	Response to RAI No. 70 Luminant Letter no.TXNB-09072 Date 11/18/2009	Added two proposed licensing conditions to the table in Section 3	-

Change ID No.	Section	ITAAC Rev.1 Page	Reason for change	Change Summary	Rev. of T/R
RCOL2_13.03-15	Appendix B.1	38, 39	Response to RAI No. 78 Luminant Letter no.TXNB-09072 Date 11/18/2009	Removed Table B-1 "EP ITAAC Not Required in CPNPP COLA" and associated text in Appendix B.1 Emergency Planning Section. Renamed Table B-2 to B- 1.	-
RCOL2_13.03-15	Appendix B.1 Table B-1 (Sheet 1 of 37 through Sheet 37 of 37)	40-77	Response to RAI No. 78 Luminant Letter no. TXNB-09072 Date 11/18/2009	Incorporated elements of RAI response into Table B-1 "Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria"	-
RCOL2_14.03.07- 28	Appendix A.1	7	Response to RAI No. 83 Luminant Letter no.TXNB- 09065 Date 11/13/2009	Added Section A.1.1 Design Description.	0
RCOL2_14.03.07- 28	Appendix A.2	15	Response to RAI No. 83 Luminant Letter no.TXNB- 09065 Date 11/13/2009	Added Section A.2.1 Design Description.	0
RCOL2_14.03.07- 28	Appendix A.3	21	Response to RAI No. 83 Luminant Letter no.TXNB- 09065 Date 11/13/2009	Added Section A.3.1 Design Description.	0
RCOL2_14.03.07- 28	Appendix A.4	27	Response to RAI No. 83 Luminant Letter no.TXNB- 09065 Date 11/13/2009	Added Section A.4.1 Design Description.	0

Comanche Peak Nuclear Power Plant, Units 3 & 4
COL Application
Part 10 - ITAAC and Proposed License Conditions
Appendix A.1

PART 10 - APPENDIX A.1

**ULTIMATE HEAT SINK SYSTEM AND ESSENTIAL SERVICE WATER
SYSTEM (PORTIONS OUTSIDE THE SCOPE OF THE CERTIFIED DESIGN)**

A.1.1 Design Description

RCOL2_14.0
3.07-28

System Purpose and Functions

The ultimate heat sink system (UHSS) is a safety-related system that is provided to remove the heat transferred from the essential service water system (ESWS) during normal operation, transients, accidents and design basis events. It is used to support achieving and maintaining a safe shutdown condition. The ultimate heat sink (UHS) basin via the safety-related ESWS is also used as a highly reliable water source to provide water to the stand pipe header of the fire protection system. This assures manual fire suppression capability following a safe shutdown earthquake.

Location and Functional Arrangement

Figure A.1-1 shows the functional arrangement of the UHSS and ESWS (portions outside the scope of the certified design). FSAR Table 3.2-201 provides the classification and locations for equipment and piping. Table A.1-2 provides information on the design characteristics of equipment.

Key Design Features

The UHSS consists of four 50 percent capacity mechanical draft cooling towers, one for each ESWS division, and four 33 1/3 percent capacity basins to satisfy the thirty day cooling water supply criteria. In addition, a UHS transfer pump is located in each UHS basin to enable water transfer between UHS basins during accident conditions. The UHSS is capable of performing required safety functions assuming that one division is out of service for maintenance coincident with the postulated loss of offsite power and any single failure within the UHSS. Each mechanical division of the system is physically separated from the other divisions, except for the header portion of the transfer line piping.

Seismic and ASME Code Classification

Table A.1-2 identifies the seismic classifications and the ASME Code Section III requirements for the UHSS components. FSAR Table 3.2-201 provides this information for system piping.

System Operation

The UHSS provides adequate removal of heat transferred from the ESWS during all operations. The essential service water is cooled by the UHS cooling tower before being returned to the UHS basin. Heat rejection to the environment is effected by direct contact of the hotter essential service water discharging from the ESWS with the UHS cooling tower forced airflow. During normal operation, the water losses due to evaporation, drift and blowdown are replenished with the

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Appendix A.1

makeup water. In response to an emergency core cooling system (ECCS) actuation signal or low UHS basin water level, the blowdown control valves automatically close. The combined inventory of three UHS basins provides a thirty-day cooling water supply during a design basis accident without makeup for water lost.

RCOL2_14.0
3.07-28

Alarms, Displays, and Controls

Table A.1-3 identifies alarms, displays, and controls associated with the UHSS and ESWS (portions outside the scope of the certified design) that are located in the main control room (MCR) and remote shutdown console (RSC).

Logic

Upon the receipt of an ECCS actuation signal, all UHS cooling tower fans automatically start or continue to operate. Upon the receipt of an ECCS actuation signal or UHS basin low water level signal, the UHS basin blowdown control valves automatically close. A water level signal at six inches below the normal water level causes the makeup water control valve to open. A signal at normal water level then causes the makeup control valve to close.

Interlocks

There are no interlocks needed for direct safety functions related to the UHSS and ESWS (portions outside the scope of the certified design).

Class 1E Electrical Power Sources and Divisions

The equipment identified in Table A.1-2 as Class 1E are powered from their respective Class 1E divisions, and separation is provided between each Class 1E division, and between Class 1E divisions and non-Class 1E cables.

Equipment to be Qualified for Harsh Environments

Not applicable

Interface with the Certified Design

A supply water temperature not exceeding 95 °F is required to provide sufficient cooling capability to the ESWS under the peak heat load condition. The UHSS can supply at least 18,000 gallons of water to the seismic standpipe system via the ESWS if necessary for manual fire suppression following a safe shutdown earthquake (SSE). The water level maintained in the UHSS basins assures that the net positive suction head available (NPSH) is greater than the ESWS pump's required NPSH.

Numeric Performance Values

Numeric performance values for selected components have been specified as ITAAC acceptance criteria in Table A.1-1 to demonstrate fulfillment of a design commitment.

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Appendix A.2

PART 10 - APPENDIX A.2

UHS ESW PUMP HOUSE VENTILATION SYSTEM

A.2.1 Design Description

RCOL2_14.0
3.07-28

System Purpose and Functions

The UHS ESW pump house ventilation system provides and maintains the proper environmental conditions in the UHS ESW pump houses.

Location and Functional Arrangement

Figure A.2-1 shows the functional arrangement of the UHS ESW pump house ventilation system. The UHS ESW pump house ventilation system is located within the UHS related structure. Table A.2-2 provides information on the design characteristics of equipment.

Key Design Features

There are four separate and independent UHS ESW pump houses and each has its own ventilation system. Each ESW pump room is provided with one 100% capacity exhaust fan and two 50% capacity unit heaters. Each transfer pump room is provided with one 100% capacity exhaust fan and one 100% capacity unit heater. The UHS ESW pump house ventilation system is provided to maintain the proper environmental conditions during all plant operating, abnormal and accident conditions.

Seismic and ASME Code Classifications

The seismic classification for system components is identified in Table A.2-2. The system components are not designed or constructed to ASME Code Section III requirements.

System Operation

The UHS ESW pump house ventilation system provides and maintains the proper environmental conditions within the individual UHS ESW pump houses during all plant operating, abnormal and accident conditions.

Alarms, Displays, and Controls

Table A.2-3 identifies alarms, displays, and controls associated with the UHS ESW pump house ventilation system that are located in the MCR and RSC.

Logic

Upon receipt of a high temperature signal, each respective exhaust fan is actuated. Upon receipt of a low temperature signal, each respective unit heaters is actuated.

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Appendix A.2

Interlocks

There are no interlocks needed for direct safety functions related to the UHS ESW pump house ventilation system.

RCOL2_14.0
3.07-28

Class 1E Electrical Power Sources and Divisions

The equipment identified in Table A.2-2 as Class 1E are powered from their respective Class 1E divisions, and separation is provided between each Class 1E division, and between Class 1E divisions and non-Class 1E cable.

Equipment to be Qualified for Harsh Environments

Not applicable

Interface with the Certified Design

Not applicable

Numeric Performance Values

When necessary to demonstrate satisfaction of a design commitment, numeric performance values for selected components have been specified as ITAAC acceptance criteria in Table A.2-1.

A.2.2 Inspections, Tests, Analyses, and Acceptance Criteria

Table A.2-1 specifies the inspections, tests, analyses, and associated acceptance criteria for the UHS ESW pump house ventilation system.