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Log # TXNB-10081

Ref. # 10 CFR 52

November 18, 2010

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
RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION NO. 5090
(SECTION 3.2.2)

Dear Sir:

Luminant Generation Company LLC (Luminant) submits herein the response to Request for Additional Information (RAI) No. 5090 (CP RAI #180) for the Combined License Application for Comanche Peak Nuclear Power Plant Units 3 and 4. The RAI requests a list of specific codes and standards used for site-specific structures, systems, and components.

Should you have any questions regarding this response, 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 November 18, 2010.

Sincerely,

Luminant Generation Company LLC

Donald R. Woodlan for

Rafael Flores

Attachment: Response to Request for Additional Information No. 5090 (CP RAI #180)

DO90
NRO

Electronic distribution w/attachment:

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Luminant Records Management (.pdf files only)

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.: 5090 (CP RAI #180)

SRP SECTION: 03.02.02 - System Quality Group Classification

QUESTIONS for Engineering Mechanics Branch 2 (ESBWR/ABWR Projects) (EMB2)

DATE OF RAI ISSUE: 9/27/2010

QUESTION NO.: 03.02.02-5

Title 10 of the Code of Federal Regulations (CFR), section 52.79(a)(4)(i) requires the applicant to comply with the General Design Criteria (GDC) of 10 CFR 50, Appendix A. GDC 1 requires that SSCs "...important to safety shall be designed, fabricated, erected, and tested to quality standards commensurate with the importance of the safety functions to be performed. Where generally recognized codes and standards are used, they shall be identified and evaluated to determine their applicability, adequacy, and sufficiency and shall be supplemented or modified as necessary to assure a quality product in keeping with the required safety function."

The response to RAI Number 67-(2757), question 03.02.02-1, submitted a list of codes and standards including their editions that apply to the SSCs listed in COLA, Part 2, FSAR Table 3.2-201, but the FSAR was not revised, nor was a commitment made to revise the FSAR, to reflect these codes and standards editions. The response stated that additional codes and standards may be identified during the detailed design and fabrication. The response also stated that a more definitive list will be available onsite during the detailed design phase. To document the latest codes and standards applied, either reference specific editions of codes and standards included in other FSAR sections or revise the FSAR to include the specific code editions described in the RAI response. If the codes and standards and their editions are cited in other sections of the US-APWR DCD or COLA, FSAR, the applicant should identify those sections.

Reference: Luminant Responses to RAIs No. 2757, 2819, 2836, 2837, and 3592; dated November 5, 2009; CP-200901549; Log # TXNB-09061; ML093130123.

ANSWER:

The response to RAI No. 2757 (CP RAI #67) Question 03.02.02-1 submitted a list of codes and standards including the revision dates that applied to the SSCs listed in the COLA. The list has been reviewed and updated to provide the codes and standards that are applicable to the SSCs in Table 3.2-201. New table Table 3.2-202, which contains a list of the major codes and standards applicable to the design of SSCs in

Table 3.2-201, has been added to the COLA. In addition, Subsection 3.2.1.2 has been revised to reference Table 3.2-202.

Impact on R-COLA

See attached marked-up FSAR Revision 1 page 3.2-1, and new pages 3.2-6 and 3.2-7.

Impact on DCD

None.

**Comanche Peak Nuclear Power Plant, Units 3 & 4
COL Application
Part 2, FSAR**

3.2 CLASSIFICATION OF STRUCTURES, SYSTEMS, AND COMPONENTS

This section of the referenced DCD is incorporated by reference with the following departures and/or supplements.

3.2.1.2 Classifications

STD COL 3.2(4) Replace last sentence of first paragraph in DCD Subsection 3.2.1.2 with the following.

The site-specific, safety-related systems and components that are designed to withstand the effects of earthquakes without loss of capability to perform their safety function; ~~and those site-specific, safety-related fluid systems or portions thereof; as well as the applicable industry codes and standards for pressure retaining components~~ are identified in Table 3.2-201. The industry codes and standards applicable to those components are listed in Table 3.2-202.

RCOL2_03.0
2.02-5

3.2.2 System Quality Group Classification

STD COL 3.2(5) Replace the last sentence of the eleventh paragraph in DCD Subsection 3.2.2 with the following.

The equipment class and seismic category of the site-specific safety-related and non-safety related fluid systems, components (including pressure retaining), and equipment as well as the applicable industry codes and standards are provided in Table 3.2-201.

3.2.3 Combined License Information

Replace the content of DCD Subsection 3.2.3 with the following.

3.2(1) Deleted from the DCD.

3.2(2) Deleted from the DCD.

3.2(3) Deleted from the DCD.

STD COL 3.2(4) **3.2(4)** Site-specific safety-related systems and components designed to withstand earthquakes

**Comanche Peak Nuclear Power Plant, Units 3 & 4
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**Table 3.2-202 (Sheet 1 of 2)
Codes and Standards Applicable to Site-Specific Mechanical
and Fluid Systems, Components, and Equipment⁽⁵⁾**

RCOL2_03.0
2.02-5

| |
|---|
| <u>Safety-Related Piping, Valves, Pumps</u> ⁽¹⁾ |
| <u>ASME</u> |
| <u>Section II, 2001 Edition with 2003 Addendum</u> |
| <u>Section III, 2001 Edition with 2003 Addendum</u> |
| <u>Section V, 2001 Edition with 2003 Addendum</u> |
| <u>Section IX, 2001 Edition with 2003 Addendum</u> |
| <u>Section XI, 2001 Edition with 2003 Addendum</u> |
| |
| <u>Non-Safety-Related Piping, Valves, and Pumps</u> ⁽²⁾ |
| <u>ASME</u> |
| <u>B31.1-2004 "Power Piping"</u> |
| |
| <u>Heating, Ventilation, and Air Conditioning Equipment</u> ⁽³⁾ |
| <u>ASME</u> |
| <u>AG-1-2003 "Code on Nuclear Air and Gas Treatment"</u> |
| <u>Air Movement and Control Association</u> |
| <u>200-1995 "Air Systems"</u> |
| <u>201-2002 "Fans and Systems"</u> |
| <u>Underwriters Laboratory</u> |
| <u>1278-2000 "Safety Movable and Wall- or Ceiling-Hung Electric Room Heaters"</u> |
| <u>1996-2009 "Safety Electric Duct Heaters"</u> |
| <u>2021-1997 "Safety Fixed and Location-Dedicated Electric Room Heaters"</u> |

**Comanche Peak Nuclear Power Plant, Units 3 & 4
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**Table 3.2-202 (Sheet 2 of 2)
Codes and Standards Applicable to Site-Specific Mechanical
and Fluid Systems, Components, and Equipment⁽⁵⁾**

RCOL2_03.0
2.02-5

| Class 1E Components⁽⁴⁾ |
|--|
| <u>Institute of Electrical and Electronic Engineers (IEEE)</u> |
| 323-1974 "Standard for Qualifying Class 1E Equipment for Nuclear Power Generating Stations" |
| 323-2003 "Standard for Qualifying Class 1E Equipment for Nuclear Power Generating Stations" |
| 344-1987 as modified by NRC RG 1.100, Rev. 2 dated June 1988, "Seismic Qualification of Electrical and Active Mechanical Equipment and Functional Qualification of Active Mechanical Equipment for Nuclear Power Plants" |
| 384-1992 "Standard Criteria for Independence of Class 1E Equipment and Circuits" |
| 603-1998 "Standard Criteria for Safety Systems for Nuclear Power Generating Stations" |
| |

Notes:

1. These codes and standards are applied to the UHS and ESW safety-related SSCs identified in Table 3.2-201.
2. These codes and standards are applied to the SG blowdown system identified in Table 3.2-201.
3. These codes and standards are applied to the heating, ventilation, and air conditioning equipment identified in Table 3.2-201.
4. These codes and standards are applied to all Class 1E equipment identified in Table 3.2-201.
5. This table identifies the current revision of documents. Later editions that are current as of procurement or manufacture may be used.