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Ref. # 10 CFR 52

January 24, 2011

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. 5287
(SECTION 2.3.1)

Dear Sir:

Luminant Generation Company LLC (Luminant) submits herein the response to Request for Additional Information (RAI) No. 5287 (CP RAI #195) for the Combined License Application for Comanche Peak Nuclear Power Plant Units 3 and 4. The RAI involves the maximum and minimum recorded temperatures in the site region.

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 January 24, 2011.

Sincerely,

Luminant Generation Company LLC

Donald R. Woodlan for

Rafael Flores

Attachment: Response to Request for Additional Information No. 5287 (CP RAI #195)

*DOYO
NRS*

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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.: 5287 (CP RAI #195)

SRP SECTION: 02.03.01 - Regional Climatology

QUESTIONS for Siting and Accident Conseq Branch (RSAC)

DATE OF RAI ISSUE: 12/20/2010

QUESTION NO.: 02.03.01-11

10 CFR 52.79(a)(1)(iii) states that the COL FSAR shall include "the seismic, meteorological, hydrologic, and geologic characteristics of the proposed site with appropriate consideration of the most severe of the natural phenomena that have been historically reported for the site and surrounding area and with sufficient margin for the limited accuracy, quantity, and time in which the historical data have been accumulated."

The US-APWR DCD states that the 0 percent exceedance ambient design temperature site parameters are based on the EPRI Advanced Light Water Reactor Utility Requirements Document and conservative estimates of historical high and low values for potential US-APWR sites. The staff considers temperatures based on a 100-year return period to provide sufficient margin for the limited accuracy, quantity, and period of time in which the historical data have been accumulated as required by the regulation. This is why NUREG-0800 Standard Review Plan 2.3.1 states that 100-year return period ambient temperature and humidity statistics should be identified as site characteristics. Thus, the staff believes the higher of either the maximum recorded dry-bulb value or the maximum 100-year dry-bulb value should be listed as the CPNPP site characteristic value to be compared to the US-APWR 0 percent exceedance maximum dry-bulb site parameter value. Similarly, the lower of either the minimum recorded dry-bulb value or the minimum 100-year dry-bulb value should be listed as the CPNPP site characteristic value to be compared to the US-APWR 0 percent exceedance minimum dry-bulb site parameter value.

In a supplemental response to RAI 4606 (Letter No 155) question 2.3.1-6, CPNPP COL FSAR Table 2.0-1R was revised to show the CPNPP 100-year return period temperatures in a separate line. According to the RAI response, this was done to avoid confusion between the CPNPP 100-year return period temperature and the CPNPP maximum recorded temperature. The staff has determined that the CPNPP 100-year return period and maximum (and minimum) recorded temperatures should be compared directly against the US-APWR 0 percent exceedance temperatures presented in FSAR Table 2.0-1R in order to comply with the staff's interpretation of 10 CFR52.79(a)(1)(iii).

ANSWER:

Table 2.0-1R has been revised to show direct comparison between the CPNPP 100-year return period maximum (and minimum) recorded temperatures and the US-APWR 0 percent exceedance temperatures.

Impact on R-COLA

See attached marked-up FSAR Revision 1 page 2.0-3.

Impact on S-COLA

None; this response is site-specific

Impact on DCD

None.

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

**Table 2.0-1R (Sheet 2 of 15)
Key Site Parameters**

	Extreme wind speed (other than in tornado)	155 mph for 3-second gusts at 33 ft aboveground level based on 100-year return period, with importance factor of 1.15 for seismic category I/II structures	99 96 mph for-3-second gust wind speed at 33-ft aboveground	RCOL2_02 .03.01-9
CP COL 2.1(1) CP COL 2.2(1) CP COL 2.3(1) CP COL 2.3(2)	Ambient design air temperature (1% exceedance maximum)	<u>1% exceedance maximum:</u> 100°F dry bulb, 77°F coincident wet bulb, 81°F non-coincident wet bulb	<u>1% exceedance maximum:</u> 99°F dry bulb, 75°F coincident wet bulb, 78°F non-coincident wet bulb	RCOL2_02 .03.01-11
	Ambient design air temperature (0% exceedance maximum)	<u>0% exceedance maximum:</u> 115°F dry bulb, 80°F coincident wet bulb, 86°F non-coincident wet bulb, historical limit excluding peaks <2 hr	<u>0% exceedance maximum:</u> 112°F dry bulb, 78°F coincident wet bulb, 83°F non-coincident wet bulb, historical limit excluding peaks <2 hr <u>100-year return period maximum:</u> <u>115°F dry bulb,</u> <u>78°F coincident wet bulb</u>	RCOL2_02 .03.01-11 RCOL2_02 .03.01-6 S01 RCOL2_02 .03.01-6 S02
CP COL 2.3(3) CP COL 2.4(1) CP COL 2.5(1)	Ambient design air temperature (1% exceedance minimum)	<u>1% exceedance minimum:</u> -10°F dry bulb	<u>1% exceedance minimum:</u> 25°F dry bulb	RCOL2_02 .03.01-11
	Ambient design air temperature (0% exceedance minimum)	<u>0% exceedance minimum:</u> -40°F dry bulb, historical limit excluding peaks <2 hr	<u>0% exceedance minimum:</u> -0.5°F dry bulb, historical limit excluding peaks <2 hr <u>100-year return period minimum:</u> <u>-5°F dry bulb</u>	RCOL2_02 .03.01-6 S01 RCOL2_02 .03.01-6 S02
<i>Atmospheric dispersion factors (χ/Q values) for on-site locations:</i>				
	Exclusion area boundary (EAB) 0-2 hrs	5.0×10^{-4} s/m ³	3.70×10^{-4} s/m ³	