



Luminant

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May 8, 2009

U. S. Nuclear Regulatory Commission
Attn: 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. 2584

Dear Sir:

Luminant Generation Company LLC (Luminant) hereby submits the attached response to Request for Additional Information No. 2584 (CP RAI #3) Question No. 02.03.03-*** for the Combined License Application for Comanche Peak Nuclear Power Plant Units 3 and 4.

The enclosed files contain five years of meteorological data (2001 through 2004 and 2006). As required, this data is provided in electronic form on the enclosed disc in the ASCII.TXT format specified in Regulatory Guide 1.23, Revision 1. The file format does not fully meet the requirements for electronic submission in NRC guidance document, "Guidance for Electronic Submissions to the NRC," Revision 4 in that the files are not *.pdf formatted.

Should you have any questions regarding the response or matters relating more generally to Luminant's nuclear generation development program, 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 May 8, 2009.

Sincerely,

Luminant Generation Company LLC

Donald R. Woodlan for

Rafael Flores

DO90
NRD

- Attachments: 1. Response to Request for Additional Information No. 2854 (CP RAI #3),
Question No. 02.03.03-***
2. Hourly Meteorological Data for Years 2001-2004 and 2006 (on CD)

c- Stephen Monarque (w/attachments)

Email Distribution w/Attachment 1

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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.: 2584, Revision 0 (CP RAI #3)

SRP SECTION: 2.3.3 – Onsite Meteorological Measurements Programs

QUESTIONS for Siting and Accident Conseq Branch (RSAC)

DATE OF RAI ISSUE: 4/24/2009

QUESTION NO.: 02.03.03-***

NUREG-0800, Standard Review Plan (SRP) Section 2.3.3, Section II (SRP Acceptance Criteria), SRP Acceptance Criterion (2) and Regulatory Guide (RG) 1.206, Section C.I.2.3.3 (Para. 2 & 3) discusses the submittal of an hour-by-hour listing of the hourly-averaged parameters in the format described in RG 1.23, "Meteorological Monitoring Programs for Nuclear Power Plants."

Please provide the following final formatted data set (i.e., data that have been verified through quality control) for the years 2001 – 2004 and 2006 period of record (POR) that corresponds to the data used in the dispersion modeling analyses in COL FSAR Sections 2.3.4 and 2.3.5:

Please provide sequential hourly data listings in the format listed in Appendix A of RG 1.23 (the NRC Staff requests that these data be provided as ASCII-character files in electronic format on CD-ROM or DVD, one file for each year in the POR).

The NRC Staff also requests that the composite data set correlate with the joint frequency distribution (JFD) tables of wind speed, wind direction, and atmospheric stability and other onsite data summaries presented in COL FSAR Section 2.3.

ANSWER:

The validated final meteorological data set for the 2001-2004 and 2006 period of record used in the atmospheric dispersion (χ/Q) modeling analyses in COL FSAR Sections 2.3.4 and 2.3.5 was provided on compact disc (CD) via Luminant letter TXNB-09004 dated March 31, 2009.

The enclosed CD provides hourly raw meteorological data for years 2001 through 2004 and 2006 in ASCII format in accordance with Appendix A of Regulatory Guide 1.23, Revision 1. This meets the submittal requirements of SRP Section 2.3.3 and RG 1.206, Section C.I.2.3.3. One file is provided for each year. The data previously provided by Luminant letter TXNB-08026 dated September 19, 2008 was a single file containing the entire five-year raw meteorological data set.

The raw meteorological data provided by Luminant in the attached files was screened and then manually reviewed using criteria recommended in NUREG-0917. The screening criteria used to identify suspect data was as follows:

- A, B, or C stability during the night
- F or G stability class during the day
- Unstable (A, B, or C) conditions during precipitation
- Stable (F or G) conditions during precipitation
- Wind direction at 60 meters not changing
- Wind direction at 10 meters not changing
- Upper and lower wind speed the same
- Missing data for: wind direction at 10 meters, wind speed at 10 meters, wind direction at 60 meters, wind speed at 60 meters, temperature at 60 meters, temperature at 10 meters
- Precipitation for more than 8 consecutive hours
- Precipitation greater than 25 mm (1 inch) in 1 hour
- Wind speed greater than 25 m/s
- Same stability class for 12 or more consecutive hours (Unstable or Stable, no D or E)
- Same temperature for 8 or more hours
- Delta-T less than $-3.4^{\circ}\text{C}/100$ meters (auto-convective lapse rate)
- Greater than 3 stability class jump for two consecutive hours
- Stability Class consistency

Suspect data was flagged for further investigation. Subsequently, a manual review was conducted to accept or reject data flagged by the screening process. In some cases where temperature data was found to be bad, it was replaced using data from a redundant device on the primary tower. Per Regulatory Guide 1.23, "the use of redundant sensors and/or recorders is an acceptable approach to achieve the 90-percent data recovery goal." This evaluation process validates the meteorological data so that it can be used for modeling and analysis.

The evaluation of the Comanche Peak meteorological data is documented in Attachment 3 of CPNPP calculation TXUT-001-FSAR-2.3-CALC-022. Two-thousand four hundred and forty hours (2440 out of 43,824 possible data hours) of bad or missing data were identified and rejected based on the screening and review process. Regulatory Guide 1.23 recommends that a data recovery goal of 90% be achieved for each year of meteorological data. The data recoveries for each year used are 92.0%, 96.2%, 98.5%, 97.1%, 88.5%, and 99.8%, for 2001 – 2006, respectively.

Typically, only five years of data are required, but because the data recovery for 2005 is below 90%, a sixth year of data was included. The 2005 data was not used in the short-term or long-term atmospheric dispersion calculations because the data contained excessive missing data which resulted in less than 90% data recovery. The data recovery for the six-year composite data is 95.4%. This edited set of data was then used in the short term, long term, and Control Room atmospheric dispersion (χ/Q) estimates as well as the data evaluations presented in FSAR Section 2.3 and ER Section 2.7.

The 2001-2004 and 2006 meteorological data used in the atmospheric calculations correlates with the meteorological data used in the joint frequency distribution tables of wind speed, wind direction and atmospheric stability in CPNPP FSAR Table 2.3-305, Sheets 1 through 10 and ER Table 2.7-105 Sheets 1 through 10.

Impact on R-COLA

None.

Impact on S-COLA

None.

Impact on DCD

None.

Attachments

Compact disc containing hourly meteorological data in ASCII format per RG 1.23 for years 2001- 2004 and 2006, one file for each year of the period of record