Luminant

Rafael Flores Senior Vice President & Chief Nuclear Officer rafael.flores@Luminant.com Luminant Power P O Box 1002 6322 North FM 56 Glen Rose, TX 76043

**T** 254 897 5550 **C** 817 559 0403 **F** 254 897 6652

Ref. # 10CFR50.55a

CP-200900593 Log # TXX-09065

April 21, 2009

#### U. S. Nuclear Regulatory Commission ATTN: Document Control Desk Washington, DC 20555

# SUBJECT:COMANCHE PEAK STEAM ELECTRIC STATION UNIT 1, DOCKET NO. 50-445RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION, 1RF13 STEAMGENERATOR TUBE INSERVICE INSPECTION REPORT - TAC NO. ME0367

REFERENCE: 1) Luminant Power letter, logged TXX-09008, from Mike Blevins to the U. S. Nuclear Regulatory Commission dated January 7, 2009

Dear Sir or Madam:

By means of the letter in Reference 1, Luminant Generation Company LLC (Luminant Power) previously submitted the Technical Specification 5.6.10.b twelve month report of the results of the steam generator tube inservice inspection completed during the thirteenth refueling outage of Comanche Peak Nuclear Power Plant (CPNPP) Unit 1 (1RF13).

Based upon questions provided by Mr. Balwant Singal of the NRC in a letter dated April 8, 2009, Luminant Power hereby provides the following additional information regarding the report detailed in Reference 1. Attachment 1 to this letter contains the NRC questions and Luminant Power's response immediately following each question.

A member of the STARS (Strategic Teaming and Resource Sharing) Alliance

Callaway Comanche Peak Diablo Canyon Palo Verde San Onofre South Texas Project Wolf Creek

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This communication contains no new licensing basis commitments regarding Comanche Peak Unit 1.

Should you have any questions, please contact Jim Barnette at (254) 897-5866.

Sincerely,

Luminant Generation Company LLC

**Rafael Flores** 

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Fred W. Madden Director, Oversight & Regulatory Affairs

Attachment - Luminant Power CPNPP Response to Request for Additional Information 1RF13 Steam Generator Tube Inspection Report - TAC No. ME0367

c - E. E. Collins, Region IV B. K. Singal, NRR Resident Inspectors, Comanche Peak

# Luminant Power Comanche Peak Nuclear Power Plant

## Response to Request for Additional Information 1RF13 Steam Generator Tube Inspection Report TAC No. ME0367

Docket No. 50-445

#### Attachment 1 to TXX-09065 Page 1 of 3

### Response to Request for Additional Information on CPNPP 1RF13 SG Inspection Report

- 1. Please provide the following information pertaining to your SGs:
  - SG Fabricator
  - Tube Manufacturer
  - Were any tubes stress relieved after bending (if so, were just the U-bends stress relieved or the whole tube, what rows of tubes were stress relieved)?
  - What is the shortest bend radius and what is its corresponding row of tubes?
  - What is the material used to fabricate the tube supports?

#### Luminant Power Response

- The CPNPP Unit 1 replacement steam generators (RSGs) were designed by Westinghouse and fabricated by Equipos Nucleares, S. A. (ENSA) in Spain.
- The SG tubes were manufactured by Valinox.
- Yes, tubes with bend radius of 10.815 inches or less (Rows 1 to 16) were stress relieved after bending. The whole tube was stress relieved after bending.
- The shortest bend radius is 3.09 inches and the corresponding Row 1 has 66 tubes adjacent to the tube lane.
- The tube support plates are made of SA-240, Type 405 stainless steel.
- 2. For the tubes with the trackable anomalies in the U-bend region in 1RF13, please discuss whether there was any change in the signal since the baseline (i.e., is there any evidence that the condition is changing with time). If there is evidence that the condition is changing with time, please discuss how was this assessed in your operational assessment (along with the effects of the recent power uprate), and the reason for the changes?

### Luminant Power Response

There is no evidence that the condition is changing with time. There was no change between the base line (pre-service inspection) and the 1RF13 response for these signals.

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3. Please discuss the scope and results of your secondary side inspections, other than your foreign object search and retrieval.

#### Luminant Power Response

The scope of the 1RF13 secondary side video inspection consisted of foreign object search and retrieval in all four SGs, a limited in-bundle inspection at the top of the tubesheet (TTS) in all four SGs (every 4th column in SG 2 & 3 and every tenth column in SG 1 & 4), and an upper bundle inspection of support plates "J" and "G" in SG 1. The objectives of the inspection were to assess the integrity of the structural components including stay rods, support blocks, etc., to evaluate the effectiveness of the sludge lancing operations, and to trend tubesheet cleanliness for future maintenance planning strategies. The results of the secondary side inspections were as follows:

- All four SGs were clean and free of significant deposits overall, indicating low corrosion product transport to the SGs.
- The TTS in all SGs was free of any significant deposits. The machining marks on the tubesheet were clearly visible, indicating minimal amount of deposit accumulation on the tubesheet. The crevices between the tubes and the tubesheet were open and free of significant deposit (See Figure 1).
- The broached trefoil flow holes were examined in the upper bundle inspection of SG 1 and were found to be free of deposit accumulation. A very light coating of magnetite deposit was noted mainly in the hot leg. The upper bundle column gaps were clean (See Figures 2, 3).
- Several internal structures were observed during the inspection. No anomalies were
  noted. The welds were intact with no visible degradation. Only one loose part was
  identified during the post sludge lance inspection. The part (see Figure 4) removed
  from SG 2 was a thin piece of metal shaving (0.75"x0.02"x0.02").
- Very few possible loose part (PLP) indications were reported by eddy current. Video inspection confirmed no loose parts in those regions.

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## **Question 3 Luminant Power Response (cont.)**

