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TXX-12118

Ref. # 10CFR50.55a(a)(3)(ii)

August 16, 2012

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

SUBJECT: COMANCHE PEAK NUCLEAR POWER PLANT
DOCKET NOS. 50-445 AND 50-446
RELIEF REQUEST NO. E-1 FOR CONTAINMENT ELECTRICAL PENETRATIONS
(SECOND IWE INTERVAL END DATE: SEPTEMBER 9, 2011)

- REFERENCES:**
1. NRC Letter dated November 30, 2001, from Robert A. Gramm to C. Lance Terry concerning Relief Request E-2, Electrical Penetrations (TAC No. MB3321) (ML013230120)
 2. NRC Letter dated October 16, 2000, from Robert A. Gramm to C. Lance Terry concerning Relief Requests D-1 and E-2 (TAC No. MA8706) (ML003759945)

Dear Sir or Madam:

Pursuant to 10 CFR 50.55a(a)(3)(ii), Luminant Generation Company LLC (Luminant Power) is submitting Relief Request E-1 for containment electrical penetrations for the second ten year IWE Inspection interval for Comanche Peak Units 1 and 2.

Luminant Power has determined that compliance with certain inspection requirements of ASME Section XI would result in an unnecessary hardship or unusual difficulty without a compensating increase in the level of quality and safety.

This relief request was previously approved by the NRC via Reference 1 for Unit 1 and Reference 2 for Unit 2.

This communication contains no new commitments regarding Comanche Peak Units 1 and 2.

Should you have any questions, please contact Mr. Jack Hicks at (254) 897-6725.

A member of the STARS Alliance

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

A047
NRR

Sincerely,

Luminant Generation Company LLC

Rafael Flores

By: 
Fred W. Madden
Director, Oversight & Regulatory Affairs

Attachment: Relief Request E-1 (Second Interval End Date: September 9, 2011)

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

Luis Ponce
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COMANCHE PEAK NUCLEAR POWER PLANTS UNITS 1 AND 2
RELIEF REQUEST NUMBER E-1 FOR CONTAINMENT ELECTRICAL PENETRATIONS
(SECOND 10 YEAR IWE INTERVAL END DATE: SEPTEMBER 9, 2011)

1. **ASME Code Component Affected:**

CPNPP Unit 1 and Unit 2 IWE Containment Electrical Penetrations that are covered by Radiant Energy Shielding (RES) as listed below:

CPNPP Unit 1 Electrical Penetrations:

E-0006, E-0009, E-0016, E-0018, E-0029, E-0039, E-0040, E-0056, E-0060

CPNPP Unit 2 Electrical Penetration:

2-E-0006, 2-E-0009, 2-E-0015, 2-E-0016, 2-E-0018, 2-E-0039, 2-E-0040, 2-E-0045,
2-E-0056, 2-E-0060, 2-E-0066

2. **Applicable Code Edition and Addenda:**

The applicable ASME Boiler and Pressure Vessel Code (hereafter referred to as the "Code") edition and addenda is ASME Section XI, "Rules for Inservice of Nuclear Power Plant Components," 1998 Edition through 2000 Addenda.

3. **Applicable Code Requirement:**

Table IWE-2500-1, Examination Category E-A, Item No. E1.11, of the Code requires a General Visual inspection of 100% of the accessible containment surface areas including the electrical penetrations listed in Section 1 of this Relief Request.

4. **Impracticality of Compliance (10CFR50.55a(a)(3)(ii))**

The surfaces of these 20 electrical penetrations are covered with Radiant Energy Shielding (RES) material which precludes the General Visual examination of the surface required by Table IWE-2500-1, Examination Category E-A, Item No. E1.11. This RES material is designed for post fire safe shutdown protection. RES is made from a custom sewn ceramic fiber blanket in a fireproof fabric envelope which is banded in place and is not designed for removal and reinstallation. The construction of the RES is such that, if damaged, the fibrous material can create excessive waste, and will require additional attention to prevent sump clogging.

5. **Burden Caused by Compliance:**

A total of 1200 man-hours per Unit would be required to remove the RES, perform the examination, repair and/or replace damaged RES, and re-install install the shielding. The total radiation exposure to perform these activities is estimated to exceed 3.5 man-Rem per Unit. The extensive craft and radiation protection support that would be required for scaffolding, RES material removal, repair or replacement of damaged RES material, and RES material re-installation on these 20 electrical penetrations would not be compensated for by an increase in the level of plant quality and safety.

6. **Proposed Alternative and Basis for Use:**

The accessible surface areas of the metal containment liner, including all mechanical penetrations and the remaining 66 Unit 1 and 64 Unit 2 electrical penetrations are not covered with RES and are accessible for the required examination. An evaluation of these covered penetrations would

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be performed and the RES would be removed if conditions exist in accessible areas that indicate degradation could also exist or extend into the RES covered areas. This relief is being requested for 20 electrical penetrations (9 for Unit 1, 11 for Unit 2) which are all of stainless steel construction and represent less than 1 percent of the total IWE metal containment surface area. The previously examined mechanical penetration assemblies and the containment liner are of carbon steel construction and are more susceptible to corrosion type damage mechanisms. The carbon steel containment liner and mechanical penetrations and the remaining stainless steel electrical penetrations have all been examined each period during the second interval without any degradation or corrosion identified. Also, Comanche Peak has adequate confidence that the stainless steel surfaces of the electrical penetrations are not susceptible to the damage mechanisms that may affect the carbon steel surfaces. Therefore, there are no additional safety benefits in examining these penetration surfaces.

7. **Duration of Proposed Alternative:**

The second ten-year IWE interval for CPNPP Unit 1 and Unit 2 began on September 10, 2001 and ended on September 9, 2011.

8. **Precedents:**

- 1) Letter logged TXX-01148 dated September 10, 2001 from C. L. Terry to the NRC submitting Relief Request E-2 for Unit 1 Electrical Penetrations (ADAMS Accession Number ML012570293)
- 2) Letter logged TXX-00151 dated August 10, 2000 from C. L. Terry to the NRC submitting Relief Requests D-1 and E-2 for Unit 2 Electrical Penetrations (ADAMS Accession Number ML003741700)