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CP-201200552  
TXX-12092

Ref: 10 CFR 50.90

July 12, 2012

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

**SUBJECT:** COMANCHE PEAK NUCLEAR POWER PLANT (CPNPP)  
DOCKET NOS. 50-445 AND 50-446  
LICENSE AMENDMENT REQUEST (LAR) 12-001, REVISION TO TECHNICAL  
SPECIFICATION 5.7, "HIGH RADIATION AREA" AND TECHNICAL  
SPECIFICATIONS TABLE 3.3.3-1"

Dear Sir or Madam:

Pursuant to 10CFR50.90, Luminant Generation Company LLC (Luminant Power) hereby requests an amendment to the CPNPP Unit 1 Operating License (NPF-87) and CPNPP Unit 2 Operating License (NPF-89) by incorporating the attached change into the Comanche Peak Nuclear Power Plant (CPNPP) Unit 1 and 2 Technical Specifications. This change request applies to both Units.

The proposed change will revise Technical Specifications 5.7.1 entitled "High Radiation Areas with Dose Rates not Exceeding 1.0 rem/hour at 30 Centimeters from the Radiation Source or from any Surface Penetrated by the Radiation." This License Amendment Request proposes to allow entry into High Radiation Areas by personnel continuously escorted by individuals qualified in radiation protection procedures. Also, the proposed change will incorporate an unrelated editorial change to Table 3.3.3-1.

Attachment 1 provides a detailed description of the proposed changes, a technical analysis of the proposed changes, Luminant Power's determination that the proposed changes do not involve a significant hazard consideration, a regulatory analysis of the proposed changes, and an environmental evaluation. Attachment 2 provides the affected Technical Specification pages marked-up to reflect the proposed changes. Attachment 3 provides retyped Technical Specification pages for review. These changes will be processed per CPNPP site procedures.

Luminant Power requests approval of the proposed License Amendment by July 15, 2013, to be implemented within 120 days of the issuance of the license amendment. The approval date was administratively selected to allow for NRC review, but the plant does not require this amendment to allow continued safe full power operations.

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ADD  
MRR

In accordance with 10CFR50.91(b), Luminant Power is providing the State of Texas with a copy of this proposed amendment.

This communication contains no new or revised commitments.

Should you have any questions, please contact Mr. Steve Dixon at (254) 897-5482.


I state under penalty of perjury that the foregoing is true and correct.

Executed on July 12, 2012,

Sincerely,

Luminant Generation Company, LLC

Rafael Flores

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

- Attachments
1. Description and Assessment
  2. Proposed Technical Specifications Changes (Marked Up Pages)
  3. Retyped Technical Specification Pages (for information)

c - E. E. Collins, Region IV  
W. C. Walker, Region IV  
B. K. Singal, NRR  
Resident Inspectors, CPNPP

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**ATTACHMENT 1 to TXX-12092**  
**DESCRIPTION AND ASSESSMENT**

## **LICENSEE'S EVALUATION**

### **1.0 DESCRIPTION**

### **2.0 PROPOSED CHANGE**

### **3.0 BACKGROUND**

### **4.0 TECHNICAL ANALYSIS**

### **5.0 REGULATORY ANALYSIS**

5.1 No Significant Hazards Consideration

5.2 Applicable Regulatory Requirements/Criteria

### **6.0 ENVIRONMENTAL CONSIDERATION**

### **7.0 PRECEDENTS**

### **8.0 REFERENCES**

## 1.0 DESCRIPTION

By this letter, Luminant Generation Company LLC (Luminant Power) requests an amendment to the CPNPP Unit 1 Operating License (NPF-87) and CPNPP Unit 2 Operating License (NPF-89) by incorporating the attached change into the CPNPP Unit 1 and 2 Technical Specifications. Proposed change LAR 12-001 is a request to revise Technical Specifications (TS) 5.7.1, "High Radiation Area" for Comanche Peak Nuclear Power Plant (CPNPP) Units 1 and 2. Also, the proposed change would correct an error in the the column header of Table 3.3.3-1.

No changes to the CPNPP Final Safety Analysis report are anticipated at this time as a result of this License Amendment Request. Luminant Power requests approval of the proposed License Amendment by July 15, 2013, to be implemented within 120 days of the issuance of the license amendment.

## 2.0 PROPOSED CHANGE

The proposed change would revise TS 5.7.1e to allow access to high radiation areas by personnel under continuous escort by personnel qualified in radiation protection procedures. This proposed change is consistent with the entry requirements of TS 5.7.2 e and would ease potential restrictions on emergency responders who could require entry into a high radiation area. The change to Table 3.3.3-1 will incorporate an editorial correction.

TS 5.7.1e currently states:

- "e. Except for individuals qualified in radiation protection procedures, entry into such areas shall be made only after dose rates in the area have been determined and entry personnel are knowledgeable of them."

TS 5.7.1e would be revised as follows:

- "e. Except for individuals qualified in radiation protection procedures, or personnel continuously escorted by such individuals, entry into such areas shall be made only after dose rates have been determined and entry personnel are knowledgeable of them."

Table 3.3.3-1 currently states:

"Condition Referenced from Required Action E.1."

Table 3.3.3-1 would be revised to state:

"Condition Referenced from Required Action D.1."

In summary, the proposed change to TS 5.7.1e ensures that entry into high radiation areas with dose rates not exceeding 1.0 rem/hour is not more restrictive than entry into high radiation areas with dose rates greater than 1.0 rem/hour and corrects the error in Table 3.3.3-1 column information.

### 3.0 BACKGROUND

On May 21, 1991, the NRC issued a revision to its standards for protection against ionizing radiation, 10CFR20. The purpose of the revision was to modify the Radiation Protection Standards to reflect developments in the principles and scientific knowledge underlying radiation protection. The new 10CFR20 became effective on June 20, 1991 and required implementation on or before January 1, 1994. The new 10CFR20 regulations were programmatically implemented at CPNPP effective January 1, 1993.

On May 15, 1997, Luminant requested and was granted License Amendment 64 which implemented the Improved Technical Specifications. This License Amendment provided high radiation area access control alternatives pursuant to 10 CFR 20.203(c)(2) and met the requirements in 10 CFR Part 20 and the guidance in NRC RG 8.3.8, on such access controls.

The proposed change to TS 5.7.1 is being requested by Luminant to facilitate entry into High Radiation Areas with dose rates not exceeding 1.0 rem/hour by individuals under the continuous escort of personnel qualified in radiation protection procedures. This option for entry is currently stated in TS section 5.7.2 concerning entry into High Radiation Areas with dose rates greater than 1.0 rem/hour. This requested change will correct this inconsistency in control of radiation areas.

### 4.0 TECHNICAL ANALYSIS

In May, 2006, the Nuclear Regulatory Commission issued Regulatory Guide 8.38, "Control of Access to High and Very High Radiation Areas in Nuclear Power Plants." In section 2.4 of the Regulatory Guide, the following methods of controlling access to these areas were deemed acceptable by the NRC staff:

"Each high radiation area, as defined in 10 CFR Part 20, should be barricaded and conspicuously posted as a high radiation area, and entrance thereto should be controlled by requiring issuance of an RWP or equivalent. Individuals trained and qualified in radiation protection procedures (e.g., a health physics technician) or personnel continuously escorted by such individuals may be exempted from this RWP requirement while performing their assigned duties in high radiation areas where radiation doses could be received that are equal to or less than 1.0 rem (0.01 Sv) in 1 hour [measured at 30 centimeters (11.8 in.) from any source of radiation] provided that they are otherwise following plant radiation protection procedures, or a general radiation protection RWP, for entry into such high radiation areas. Any individual or group of individuals permitted to enter such areas should be provided with or accompanied by one or more of the following:

- (1) a radiation monitoring device that continuously indicates the radiation dose rate in the area
- (2) a radiation monitoring device that continuously integrates the radiation dose rate in the area and alarms when a preset integrated dose is received; entry into such areas with this monitoring device may be made after the dose rates in the area have been determined and personnel have been made knowledgeable of them
- (3) an individual qualified in radiation protection procedures with a radiation dose rate monitoring device; this individual is responsible for providing positive radiation protection control over the activities within the area and should perform periodic radiation surveillance at the frequency specified in the radiation protection procedures or the applicable RWP."

CPNPP is requesting this change to the Technical Specifications to align the entry requirements

with the allowed control methods of Regulatory Guide 8.38.

## 5.0 REGULATORY ANALYSIS

### 5.1 No Significant Hazards Consideration

Luminant Power has evaluated whether or not a significant hazards consideration is involved with the proposed amendment(s) by focusing on the three standards set forth in 10CFR50.92, "Issuance of amendment," as discussed below:

1. Do the proposed changes involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No

The proposed change to the Technical Specifications has no impact on accident initiation or mitigation. Therefore, the proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Do the proposed changes create the possibility of a new or different kind of accident from any accident previously evaluated?

Response: No

The proposed change to the Technical Specifications has no impact on accident initiation or mitigation. Therefore, the proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.

3. Do the proposed changes involve a significant reduction in a margin of safety?

Response: No

The proposed change to the Technical Specifications has no impact on accident initiation or mitigation. The proposed change will allow for the positive radiation protection control of activities in High Radiation Areas. This is consistent with the requirements of 10CFR20.1601(a) and 10CFR20.1601(c). Therefore the proposed change does not involve a reduction in a margin of safety.

Based on the above evaluations, Luminant Power concludes that the proposed amendment(s) present no significant hazards under the standards set forth in 10CFR50.92(c) and, accordingly, a finding of no significant hazards consideration is justified.

### 5.2 Applicable Regulatory Requirements/Criteria

10CFR20.1601 describes the applicable regulatory requirements associated with the proposed amendment. 10CFR20.1601 states:

"(a) The licensee shall ensure that each entrance or access point to a high radiation area has one or more of the following features--

- (1) A control device that, upon entry into the area, causes the level of radiation to be reduced below that level at which an individual might receive a deep-dose equivalent of 0.1 rem (1 mSv) in 1 hour at 30 centimeters from the radiation source or from any surface that the radiation penetrates;
  - (2) A control device that energizes a conspicuous visible or audible alarm signal so that the individual entering the high radiation area and the supervisor of the activity are made aware of the entry; or
  - (3) Entryways that are locked, except during periods when access to the areas is required, with positive control over each individual entry.
- (b) In place of the controls required by paragraph (a) of this section for a high radiation area, the licensee may substitute continuous direct or electronic surveillance that is capable of preventing unauthorized entry.
- (c) A licensee may apply to the Commission for approval of alternative methods for controlling access to high radiation areas.
- (d) The licensee shall establish the controls required by paragraphs (a) and (c) of this section in a way that does not prevent individuals from leaving a high radiation area.
- (e) Control is not required for each entrance or access point to a room or other area that is a high radiation area solely because of the presence of radioactive materials prepared for transport and packaged and labeled in accordance with the regulations of the Department of Transportation provided that--
- (1) The packages do not remain in the area longer than 3 days; and
  - (2) The dose rate at 1 meter from the external surface of any package does not exceed 0.01 rem (0.1 mSv) per hour.
- (f) Control of entrance or access to rooms or other areas in hospitals is not required solely because of the presence of patients containing radioactive material, provided that there are personnel in attendance who will take the necessary precautions to prevent the exposure of individuals to radiation or radioactive material in excess of the limits established in this part and to operate within the ALARA provisions of the licensee's radiation protection program."

CPNPP is requesting this License Amendment Request under the requirements of 10CFR20.1601 (b) and (c) listed above.

In conclusion, based on the considerations discussed above, (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

## 6.0 ENVIRONMENTAL CONSIDERATION

The proposed amendment is confined to (i) changes to surety, insurance, and/or indemnity requirements, or (ii) changes to recordkeeping, reporting, or administrative procedures or requirements. Accordingly, the proposed amendment meets the eligibility criterion for categorical exclusion set forth in 10CFR51.22(c)(10). Therefore, pursuant to 10CFR51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed amendment.



## **7.0 PRECEDENTS**

- 7.1 On January 4, 2010, the NRC approved and issued License Amendment No. 241 to the Facility Operating License for the Vermont Yankee Nuclear Power Station to revise the Technical Specifications that governs the administrative controls of High Radiation Areas (HRA) to incorporate the HRA administrative controls contained within the Standard Technical Specifications, NUREG 1433, Revision 3.
- 7.2 On June 27, 2002, the NRC approved and issued License Amendment No. 58 to the Facility Possession Only License for the Three Mile Island Nuclear Station, Unit 2 to revise the referenced control requirements for access to high radiation areas with the actual requirements of 10CFR20.

## **8.0 REFERENCES**

- 8.1 Regulatory Guide 8.38, "Control of Access to High and Very High Radiation Areas in Nuclear Power Plants."
- 8.2 10 CFR Part 20 - Standards for Protection Against Radiation
- 8.3 Standard Technical Specifications, NUREG 1433, Revision 3

**ATTACHMENT 2 to TXX-12092**

**PROPOSED TECHNICAL SPECIFICATION CHANGES (MARK-UP)**

**Pages**

**3.3-37**

**5.7-2**

Table 3.3.3-1 (page 1 of 1)  
Post Accident Monitoring Instrumentation

FUNCTION	REQUIRED CHANNELS	CONDITION REFERENCED FROM REQUIRED ACTION E.1
1. Refueling Water Storage Tank Level	2	E
2. Subcooling Monitors	2	E
3. Reactor Coolant System (RCS) Hot Leg Temperature (Wide Range) ( $T_{hot}$ )	1 per loop	E
4. RCS Cold Leg Temperature (Wide Range) ( $T_{cold}$ )	1 per loop	E
5. RCS Pressure (Wide Range)	2	E
6. Reactor Vessel Water Level	2 <sup>(a)</sup>	F
7. Containment Sump Water Level (Wide Range)	2	E
8. Containment Pressure (Intermediate Range)	2	E
9. Steam Line Pressure	2 per steam line	E
10. Containment Area Radiation (High Range)	2	F
11. Deleted		
12. Pressurizer Water Level	2	E
13. Steam Generator Water Level (Narrow Range)	2 per steam generator	E
14. Condensate Storage Tank Level	2	E
15. Core Exit Temperature - Quadrant 1	2 <sup>(c)</sup>	E
16. Core Exit Temperature - Quadrant 2	2 <sup>(c)</sup>	E
17. Core Exit Temperature - Quadrant 3	2 <sup>(c)</sup>	E
18. Core Exit Temperature - Quadrant 4	2 <sup>(c)</sup>	E
19. Auxiliary Feedwater Flow		
a. AFW Flow	2 per steam generator	E
<u>OR</u>		
b. AFW Flow and Steam Generator Water Level (Wide Range)	1 each per steam generator	E

D.

- (a) A channel is eight sensors in a probe. A channel is OPERABLE if four or more sensors, one or more in the upper section and three or more in the lower section, are OPERABLE.  
 (b) Deleted  
 (c) A channel consists of two core exit thermocouples (CETs).

5.7 High Radiation Area

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5.7.1 High Radiation Areas with Dose Rates not Exceeding 1.0 rem/hour at 30 Centimeters from the Radiation Source or from any Surface Penetrated by the Radiation  
(continued)

or personnel continuously escorted by such individuals,

ii. Be under the surveillance as specified in the RWP or equivalent, while in the area, by means of closed circuit television, of personnel qualified in radiation protection procedures, responsible for controlling personnel radiation exposure in the area, and with the means to communicate with individuals in the area who are covered by such surveillance.

e. Except for individuals qualified in radiation protection procedures, entry into such areas shall be made only after dose rates in the area have been determined and entry personnel are knowledgeable of them.

5.7.2 High Radiation Areas with Dose Rates Greater than 1.0 rem/hour at 30 Centimeters from the Radiation Source or from any Surface Penetrated by the Radiation, but less than 500 rads/hour at 1 Meter from the Radiation Source or from any Surface Penetrated by the Radiation:

- a. Each entryway to such an area shall be conspicuously posted as a high radiation area and shall be provided with a locked or continuously guarded door or gate that prevents unauthorized entry, and, in addition:
1. All such door and gate keys shall be maintained under the administrative control of the [shift manager], or his or her designee.
  2. Doors and gates shall remain locked except during periods of personnel or equipment entry or exit.
- b. Access to, and activities in, each such area shall be controlled by means of an RWP or equivalent that includes specification of radiation dose rates in the immediate work area(s) and other appropriate radiation protection equipment and measures.
- c. Individuals qualified in radiation protection procedures may be exempted from the requirement for an RWP or equivalent while performing radiation surveys in such areas provided that they are otherwise following plant radiation protection procedures for entry to, exit from, and work in such areas.
- d. Each individual or group entering such an area shall possess:
1. A radiation monitoring device that continuously integrates the radiation rates in the area and alarms when the device's dose alarm setpoint is reached, with an appropriate alarm setpoint, or

**ATTACHMENT 3 to TXX-12092**

**RETYPE TECHNICAL SPECIFICATION PAGES**

**Pages**

**3.3-37**

**5.7-2**

Table 3.3.3-1 (page 1 of 1)  
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2. Subcooling Monitors	2	E
3. Reactor Coolant System (RCS) Hot Leg Temperature (Wide Range) ( $T_{hot}$ )	1 per loop	E
4. RCS Cold Leg Temperature (Wide Range) ( $T_{cold}$ )	1 per loop	E
5. RCS Pressure (Wide Range)	2	E
6. Reactor Vessel Water Level	2 <sup>(a)</sup>	F
7. Containment Sump Water Level (Wide Range)	2	E
8. Containment Pressure (Intermediate Range)	2	E
9. Steam Line Pressure	2 per steam line	E
10. Containment Area Radiation (High Range)	2	F
11. Deleted		
12. Pressurizer Water Level	2	E
13. Steam Generator Water Level (Narrow Range)	2 per steam generator	E
14. Condensate Storage Tank Level	2	E
15. Core Exit Temperature - Quadrant 1	2 <sup>(c)</sup>	E
16. Core Exit Temperature - Quadrant 2	2 <sup>(c)</sup>	E
17. Core Exit Temperature - Quadrant 3	2 <sup>(c)</sup>	E
18. Core Exit Temperature - Quadrant 4	2 <sup>(c)</sup>	E
19. Auxiliary Feedwater Flow		
a. AFW Flow	2 per steam generator	E
<u>OR</u>		
b. AFW Flow and Steam Generator Water Level (Wide Range)	1 each per steam generator	E

(a) A channel is eight sensors in a probe. A channel is OPERABLE if four or more sensors, one or more in the upper section and three or more in the lower section, are OPERABLE.

(b) Deleted

(c) A channel consists of two core exit thermocouples (CETs).

5.7 High Radiation Area

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5.7.1 High Radiation Areas with Dose Rates not Exceeding 1.0 rem/hour at 30 Centimeters from the Radiation Source or from any Surface Penetrated by the Radiation  
(continued)

- ii. Be under the surveillance as specified in the RWP or equivalent, while in the area, by means of closed circuit television, of personnel qualified in radiation protection procedures, responsible for controlling personnel radiation exposure in the area, and with the means to communicate with individuals in the area who are covered by such surveillance.
- e. Except for individuals qualified in radiation protection procedures, or personnel continuously escorted by such individuals, entry into such areas shall be made only after dose rates in the area have been determined and entry personnel are knowledgeable of them.

5.7.2 High Radiation Areas with Dose Rates Greater than 1.0 rem/hour at 30 Centimeters from the Radiation Source or from any Surface Penetrated by the Radiation, but less than 500 rads/hour at 1 Meter from the Radiation Source or from any Surface Penetrated by the Radiation:

- a. Each entryway to such an area shall be conspicuously posted as a high radiation area and shall be provided with a locked or continuously guarded door or gate that prevents unauthorized entry, and, in addition:
  - 1. All such door and gate keys shall be maintained under the administrative control of the [shift manager], or his or her designee.
  - 2. Doors and gates shall remain locked except during periods of personnel or equipment entry or exit.
- b. Access to, and activities in, each such area shall be controlled by means of an RWP or equivalent that includes specification of radiation dose rates in the immediate work area(s) and other appropriate radiation protection equipment and measures.
- c. Individuals qualified in radiation protection procedures may be exempted from the requirement for an RWP or equivalent while performing radiation surveys in such areas provided that they are otherwise following plant radiation protection procedures for entry to, exit from, and work in such areas.
- d. Each individual or group entering such an area shall possess:
  - 1. A radiation monitoring device that continuously integrates the radiation rates in the area and alarms when the device's dose alarm setpoint is reached, with an appropriate alarm setpoint, or