

## **PMComanchePeakPEm Resource**

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**From:** Monarque, Stephen  
**Sent:** Tuesday, April 23, 2013 2:03 PM  
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**Cc:** ComanchePeakCOL Resource; Reyes, Ruth  
**Subject:** Comanche Peak RCOL Chapter 19 - RAI Number 274  
**Attachments:** RAI\_7059 (RAI 274).docx

The NRC staff has identified that additional information is needed to continue its review of the combined license application. The NRC staff's request for additional information (RAI) is contained in the attachment. Luminant is requested to inform the NRC staff if a conference call is needed.

The response to this RAI is due within 35 calendar days of **April 23, 2013**.

Note: The NRC staff requests that the RAI response include any proposed changes to the FSAR.

thanks,

Stephen Monarque  
U. S. Nuclear Regulatory Commission  
NRO/DNRL/NMIP  
301-415-1544

**Hearing Identifier:** ComanchePeak\_COL\_Public  
**Email Number:** 1826

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## **Request for Additional Information 274 (7059)**

Issue Date: 4/23/2013

Application Title: Comanche Peak Units 3 and 4 - Dockets 52-034 and 52-035

Operating Company: Luminant Generation Company, LLC.

Review Section: 19.02 - Review of Risk Information Used to Support Permanent Plant-Specific Changes to the Licensing Basis: General Guidance

Application Section: 19.2.3.3.7

### **QUESTIONS**

19.02-1

In section 19.2.3.3.7 of the CP COL FSAR you provide the following information for Standard COL information item 19.3(7):

“Replace the second-to-last paragraph in DCD Subsection 19.2.3.3.7 with the following.

An equipment survivability assessment will be performed prior to fuel load of the as-built equipment required to maintain safe shutdown and containment structural integrity to provide reasonable assurance that they will operate in the environmental conditions resulting from hydrogen burns associated with severe accidents for which they are intended and over the time span for which they are needed. This assessment is required only for equipment used for severe accident mitigation that has not been tested at severe accident conditions. The ability of the as-built equipment to perform during severe accident hydrogen burns will be assessed using the Environment Enveloping method or the Test Based Thermal Analysis method discussed in EPRI NP-4354 (Reference 19.2-11).”

Based on review of the information provided in the above COL item the staff determined that the above information in conjunction with the information that is in the U.S APWR DCD Revision 3 is not sufficient for a staff finding, before the Comanche Peak Nuclear Power Plant (CPNPP) COL is issued, that there is assurance that the procured equipment will survive a severe accident, in accordance with 10 CFR 50.44(c)(3), and perform their function in accordance with CFR 50.44(c)(5). The staff determined that the response to Information item 19.3(7) constitutes a commitment to provide information (i.e. the equipment survivability assessment findings on as-built equipment). The staff determined that, in addition to the above, a commitment to update the CPNPP design basis with the results of the severe accident survivability study on as-procured equipment is needed for the staff to make a determination on these regulations.

Interim Staff Guidance on Post-Combined License Commitments, ESP/DC/COL-ISG-015, describes several options for treatment of post-licensing commitments and clarifies that the NRC staff will make the determination as to which is the most appropriate option. Therefore in accordance with ISG-015, the staff requests the following information:

Revise the COL information item response to provide information (such as the findings of the equipment survivability assessment on as-procured equipment) sufficient for the staff to make findings on compliance of CPNPP with the requirements of 10 CFR 50.44(c)(3) and (c)(5) as they apply to the procured equipment, identified in Tier 2 Chapter 19.2, needed to function to mitigate a severe accident. Alternatively, clarify the COL FSAR, or indicate where in the COL FSAR there is a justification why this information cannot be provided to the NRC staff before the COL is issued. Identify COL 19.3(7) as an item on the list of those COL items that cannot be completely resolved prior to COL issuance. With this alternative,

1. Clarify the DCD to state for each component that is currently identified in DCD Tier 2 Chapter 19.2.3.3.7, the corresponding severe accident condition parameter (i.e. the pressure, temperature and time values), currently described in Section 15.7 of the PRA technical report “US-APWR Probabilistic Risk Assessment”, to which the component must be designed to withstand. And,

Identify new site-specific ITAAC in the CPNPP COLA to control the activity to reconcile the design basis

information with as-procured equipment information. Acceptance criteria for such ITAAC would confirm that the procured and installed equipment that is currently identified in DCD Tier 2 Chapter 19.2.3.3.7 is capable of surviving the environmental conditions associated with a severe accident that includes the burning of hydrogen, conditions as currently described in Section 15.7 of the PRA technical report "US-APWR Probabilistic Risk Assessment". Specify the equipment and the corresponding severe accident conditions for each component, and revise COL Tier 2 in accordance with item 1 above such that this US-APWR DCD Tier 1 information and ITAAC is derived from COLA Tier 2 information. Or,

2. Propose, in accordance with the U.S. APWR DC applicant, plans for equivalent new or revised ITAAC within the scope of the US-APWR certified design. Or,

3. Propose a new license condition to control the as-built reconciliation activity. The license condition would serve as a commitment to update the FSAR with as-procured material information and to allow for confirmation by the NRC via inspection that the as-procured information is bounded by the original assumptions regarding the ability of the equipment to withstand the environmental conditions associated with the burning of hydrogen. This would be an FSAR information commitment included in a license condition to include the severe accident equipment survivability assessment study results and other information on this matter in the design basis of the facility. The information commitment should specify the information to be added to the FSAR. This information is that which should be reviewed as part of the design basis for the facility when reviews and evaluations such as those performed in accordance with 10 CFR 50.54(f), 10 CFR 50.59 and 10 CFR 50.65 are required. The proposed license condition should be included in an appropriate section of the COL application to facilitate identification and tracking. The proposed license condition should also include a milestone schedule (i.e. "prior to fuel load") of the availability of the information for inspection by the staff, along with a milestone schedule (i.e. "prior to fuel load") for ensuring that the specific FSAR information identified is included in an FSAR update required by 10 CFR 50.71(e). It should be noted that more recent DC applications have included as-built confirmations in an ITAAC rather than a COL action item.

In addition provide a discussion on what programs exist, for this equipment, that provide assurance that compliance with 10 CFR 50.44(c)(3) and (c)(5) is periodically assessed throughout the operating life of the plant.