

August 28, 2012

**COMANCHE PEAK NUCLEAR POWER PLANT, UNITS 3 AND 4
COMBINED LICENSE APPLICATION**

**NRC Audit of Seismic Hazard Software for the New Central and Eastern United States
Seismic Source Characterization model implementation**

September 25 - 26, 2012

Docket Nos.: 52-034 and 52-035

Location Mitsubishi Nuclear Energy Systems, Inc.
1001, 19th Street North
Arlington, VA 22209

Purpose:

The U.S Nuclear Regulatory Commission (NRC) staff is preparing to audit distinct seismic hazard calculation software being used by the industry to respond to the near-term task force Recommendation 2.1, seismic request for additional information issued to all Combined License (COL) and Early Site Permit applicants. The purpose of these planned audits is to review the seismic hazard software and to examine the implementation of the new seismic source models described in NUREG 2115, "Central and Eastern United States Seismic Source Characterization for Nuclear Facilities." The objective is to gain in-depth understanding of the seismic software being used and the implementation of the new seismic source model into the existing codes. Performing these audits will help the staff to conduct its reviews more efficiently when the full responses are submitted. The audit for Comanche Peak Nuclear Power Plant, Units 3 and 4, COL application is being conducted at Mitsubishi Nuclear Energy Systems, Inc. per Luminant Generation Company, LLC.'s (Luminant's) request.

Regulatory Audit Basis

The basis for the audit is found in the following regulations:

- 10 CFR 100.23, "Geologic and seismic siting criteria."
- 10 CFR 52.79, "Contents of applications; technical information in final safety analysis report."

Regulatory Audit Scope or Methodology

1. Review seismic hazard software.
2. Review details of the implementation of the new Central and Eastern United States (CEUS) seismic source model in hazard calculations.

3. Review the CEUS Seismic Source Characterization model input parameters.
4. Review new model implementation by comparing seismic hazard calculations conducted at the seven test sites presented in NUREG-2115, "Central and Eastern United States Seismic Source Characterization for Nuclear Facilities."
5. Review any additional test run calculations and conduct test runs.
6. Review application of the new cumulative absolute velocity filter settings for removing effect of non-damaging earthquakes in seismic hazard calculations.

Information and Other Material Necessary for Audit:

Luminant is requested to provide the following information and logistical support for the duration of the audit.

- All documents, such as calculation reports, sources of data and methods, and computer codes and quality assurance documentation for the computer codes that are relevant for the discussion.
- Audiovisual equipment that might be necessary for the discussion, including a computer display projector.
- Subject matter experts responsible for the technical analysis are requested to be available for the duration of the audit.

Audit Team:

The NRC staff attending the audit will include the NRC technical reviewer, in addition to the project management personnel. The following personnel will participate in the audit:

Tarun Roy, NRC
Dogan Seber, NRC

Logistics:

The NRC staff expects the audit to last for about one and a half days. The audit is scheduled to start on Tuesday September 25, 2012, and end on Wednesday, September 26, 2012. The audit will occur at Mitsubishi Nuclear Energy Systems, Inc. located in Arlington, Virginia.

The NRC staff will conduct an entrance meeting scheduled for Tuesday, September 25, 2012, starting at 9:00 a.m. The audit will conclude with an exit briefing scheduled for Wednesday, September 26, 2012.

Deliverables:

An audit report will be generated after the completion of the audit. The audit outcome will be used to identify any additional information which may need to be submitted for making regulatory decisions.

Docket Nos. 52-034 and 52-035

Enclosure:
Audit Agenda

cc w/encl: See next page

Deliverables:

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Enclosure:
Audit Agenda

cc w/encl: See next page

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DATE	08/27/2012	08/27/2012	08/28/2012	08/27/2012	08/28/2012

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Audit Agenda

September 25, 2010

- 9:00 a.m. - 12:00 p.m.: Introduction and overview of the seismic hazard software, hazard calculation procedures, quality assurance (Q/A) process and implementation, discussion on input model preparations, and hazard comparisons with the seven test sites.
- 1:00 p.m. - 5:00 p.m.: Q/A documentations review and discussions.

September 26, 2012

- 9:00 a.m. - 1:00 p.m.: Software test runs, confirmation of the new Central and Eastern United States seismic source model input parameters, cumulative absolute velocity implementation process, audit closure.

Enclosure

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(Revised 08/14/2012)

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