



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

June 9, 2016

Mr. Ken J. Peters  
Senior Vice President and Chief  
Nuclear Officer  
Attention: Regulatory Affairs  
Luminant Generation Company, LLC  
P.O. Box 1002  
Glen Rose, TX 76043

SUBJECT: NUCLEAR REGULATORY COMMISSION REPORT FOR THE AUDIT OF  
LUMINANT GENERATION COMPANY, LLC.'S FLOOD HAZARD  
REEVALUATION REPORT SUBMITTAL RELATING TO THE NEAR-TERM  
TASK FORCE RECOMMENDATION 2.1-FLOODING FOR COMANCHE PEAK  
NUCLEAR POWER PLANT, UNITS 1 AND 2 (CAC NOS. MF1099 AND  
MF1100)

Dear Mr. Peters:

By letter dated June 11, 2015 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML15148A677), the U.S. Nuclear Regulatory Commission (NRC) informed you of the staff's plan to conduct a regulatory audit of the Luminant Generation Company, LLC's (Luminant, the licensee) Flood Hazard Ree-evaluation Report (FHRR) submittal related to the Near-Term Task Force Recommendation 2.1-Flooding for Comanche Peak Nuclear Power Plant, Units 1 and 2 (Comanche Peak). The audit was intended to support the NRC staff review of the licensee's FHRR and the subsequent issuance of a staff assessment.

The NRC conducted the audit and associated follow-up calls on July 6, 2015, December 10, 2015, and January 20, 2016. The audits were performed consistent with NRC Office of Nuclear Reactor Regulation, Office Instruction LIC-111, "Regulatory Audits," dated December 29, 2008, (ADAMS Accession No. ML082900195). The purpose of this letter is to provide you with the final audit report which summarizes and documents the NRC's regulatory audit of the licensee's FHRR submittal.

K. Peters

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If you have any questions, please contact me at (301) 415-2915 or by e-mail at Victor.Hall@nrc.gov.

Sincerely,

A handwritten signature in dark ink, appearing to read "Victor Hall", with a stylized flourish at the end.

Victor Hall, Senior Project Manager  
Office of Nuclear Reactor Regulation  
Japan Lessons-Learned Division  
Hazards Management Branch

Docket Nos.: 50-445 and 50-446

Enclosure:  
Audit Report

cc w/encl: Distribution via Listserv



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

AUDIT REPORT BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
FOR THE AUDIT OF LUMINANT GENERATION COMPANY, LLC'S  
FLOOD HAZARD REEVALUATION REPORT SUBMITTAL  
RELATING TO THE NEAR-TERM TASK FORCE RECOMMENDATION 2.1-FLOODING FOR  
COMANCHE PEAK NUCLEAR POWER PLANT, UNITS 1 AND 2  
DOCKET NOS. 50-445 AND 50-446

BACKGROUND AND AUDIT BASIS

By letter dated March 12, 2012, the U.S. Nuclear Regulatory Commission (NRC) issued a request for information to all power reactor licensees and holders of construction permits in active or deferred status, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR), Section 50.54(f) "Conditions of license" (hereafter referred to as the "50.54(f) letter"). The request was issued in connection with implementing lessons-learned from the 2011 accident at the Fukushima Dai-ichi nuclear power plant, as documented in The Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident. Recommendation 2.1 in that document recommended that the NRC staff issue orders to all licensees to reevaluate seismic and flooding for their sites against current NRC requirements and guidance. Subsequent Staff Requirements Memoranda associated with Commission Papers SECY 11-0124 and SECY-11-0137, instructed the NRC staff to issue requests for information to licensees pursuant to 10 CFR 50.54(f).

By letter dated March 12, 2013, Luminant Generation Company, LLC (Luminant, the licensee) submitted its Flood Hazard Reevaluation Report (FHRR) for Comanche Peak Nuclear Power Plant, Units 1 and 2 (Comanche Peak) (Agencywide Documents Access and Management System Accession No. ML13074A058). The NRC has reviewed the submittal and has completed a regulatory audit of the licensee to better understand the development of the submittal, identify any similarities with past work completed and ultimately aid in its review of the licensees' FHRR. This audit summary was completed in accordance with the guidance set forth in NRC Office of Nuclear Reactor Regulation, Office Instruction LIC-111, "Regulatory Audits," dated December 29, 2008 (ADAMS Accession No. ML082900195).

AUDIT LOCATION AND DATES

The audit was completed at NRC Headquarters in Rockville, MD, on July 6, 2015, by document review via the licensee's established electronic reading room and by teleconferences on December 10, 2015, and January 20, 2016.

Enclosure

## DOCUMENTS AUDITED

The documents reviewed by the NRC staff were located in an electronic reading room during the NRC staff's review. Documents used by the NRC staff to support the technical analysis will be referenced in the staff assessment.

## AUDIT TEAM

The NRC audit team, and audit participants were as follows:

<b>AUDIT TEAM</b>	<b>July 6, 2015</b>	<b>December 10, 2015</b>	<b>January 20, 2016</b>
<b>NRC Staff</b>			
Victor Hall, Team Leader, NRR	X	X	X
Andy Campbell, NRO		X	X
Mohamed Shams, NRR		X	X
Chris Cook, NRO		X	
Aida Rivera-Varona, NRO			X
Nebiyu Tiruneh, NRO	X	X	
Laura Quinn-Willingham, NRO		X	
<b>Oak Ridge National Laboratories Contractors</b>			
Scott DeNeale (via telecon)	X	X	
David Watson (via telecon)	X	X	

<b>AUDIT TEAM</b>	<b>July 6, 2015</b>	<b>December 10, 2015</b>	<b>January 20, 2016</b>
<b>Luminant</b>			
Tom McCool	X	X	X
Carl Corbin	X	X	X
Mike Osterman	X	X	
Norman Terrel	X	X	X
Tim Hope			X
<b>Westinghouse</b>			
Mark Moenssens	X	X	X
Richard Giachetti	X		
<b>Rizzo Associates</b>			
Ahmed "Jemie" Dababneh	X	X	
Jeffrey Oskamp	X		
Mark Schwartz	X		
Tom Edwards			X

### AUDIT ACTIVITIES

The audit focused on gaining a better understanding of the local intense precipitation modeling results for the Comanche Peak FHRR. Luminant, in coordination with Westinghouse and Rizzo Associates Inc. made presentations and shared revised modeling results. The audit included discussions regarding the licensee's use of Hydrologic Engineering Center (HEC) River Analysis System (RAS) modeling, and the licensee's quasi 2-D approach in HEC-RAS. During the discussions, the staff and licensee discussed the use of water elevation 810.6' as the local intense precipitation flood level for all the power block structures systems and components as a reasonable estimate.

### EXIT MEETING/BRIEFING

By letter dated, February 11, 2016, the NRC staff issued a summary of the reevaluated flood-causing mechanisms (ADAMS Accession No. ML16041A228). That letter concluded that the licensee's reevaluated flooding hazard information is a suitable input for the mitigating strategies assessment as well as assessments associated with Near-Term Task Force Recommendation 2.1 "Flooding," thus closing out the discussion of the technical topics described above.

K. Peters

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If you have any questions, please contact me at (301) 415-2915 or by e-mail at Victor.Hall@nrc.gov.

Sincerely,

**/RA/**

Victor Hall, Senior Project Manager  
Office of Nuclear Reactor Regulation  
Japan Lessons-Learned Division  
Hazards Management Branch

Docket Nos.: 50-445 and 50-446

Enclosure:  
Audit Report

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ARivera-Varona, NRO	KErwin, NRO	ACampbell, NRO
MWillingham, NRO	RRivera-Lugo, NRO	BHarvey, NRO
MShams, NRR	NTiruneh, NRO	

**ADAMS Accession No.: ML16131A582**

**\*via email**

OFFICE	NRR/JLD/JHMB/PM	NRR/JLD/JHMB/LA	NRO/DSEA/RHM2/TR*	NRO/DSEA/RHM2/BC
NAME	VHall	SLent	NTiruneh	ARivera-Varona
DATE	05/09/2016	05/10/2016	06/01/2016	06/07/2016
OFFICE	NRR/JLD/JHMB/BC	NRR/JLD/JHMB/PM		
NAME	MShams	VHall		
DATE	05/15/2016	06/09/2016		

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