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United States Nuclear Regulatory Commission
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H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2
DOCKET NO. 50-261/RENEWED LICENSE NO. DPR-23

H.B. ROBINSON SEISMIC PROBABILISTIC RISK ASSESSMENT (SPRA) PLANS IN RESPONSE TO THE REQUEST FOR INFORMATION PURSUANT TO 10CFR50.54(f) UNDER NEAR-TERM TASK FORCE RECOMMENDATION 2.1

References:

1. NRC Letter, *Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Recommendations 2.1, 2.3, and 9.3, of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident*, dated March 12, 2012, (ADAMS Accession Number ML12056A046)
2. NRC Memorandum, Proposal of a Generic Issue related to the Effect of Downstream Dam Failures on NRC Licensed Facilities, dated November 18, 2011, (ADAMS Accession Number ML11308B373)
3. NRC Memorandum, *Recommendation for Dispositioning Proposed Generic Issue on the Effects of Downstream Dam Failures on Nuclear Power Plants*, dated March 11, 2016, (ADAMS Accession Number ML15253A365).
4. NRC Letter, *Final Determination of Licensee Seismic Probabilistic Risk Assessments under the Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Recommendation 2.1 "Seismic" of the Near-Term Task Force Review of Insights from the Fukushima Dai-Ichi Accident*, dated October 27, 2015, (ADAMS Accession Number ML15194A015)
5. EPRI Report 1025287, Seismic Evaluation Guidance – Screening Prioritization and Implementation Details (SPID) for the Resolution of Fukushima Near-Term Task Force Recommendation 2.1: Seismic, February 2013
6. ASME/ANS RA-Sa-2009, Addenda A to ASME/ANS RA-S-2008, "Standard for Level 1/Large Early Release Frequency Probabilistic Risk Assessment for Nuclear Power Plant Applications"

7. ASME/ANS RA-Sb-2013, Addenda B to ASME/ANS RA-S-2008, "Standard for Level 1/Large Early Release Frequency Probabilistic Risk Assessment for Nuclear Power Plant Applications"
8. NRC Evaluation, "White Paper Regarding Nuclear Regulatory Commission Staff Updated Assessment of Fukushima Tier 2 Recommendation Related to Evaluation of Natural Hazards other than Flooding and Seismic," dated March 24, 2016, (ADAMS Accession No. ML16039A054).

Ladies and Gentlemen:

On November 18, 2011, the NRC proposed a generic issue regarding the effect of downstream dam failures on the availability of cooling and service water at operating nuclear power plant sites [Reference 2]. A description of the proposed generic issue and proposed resolution was provided by NRC memorandum dated March 11, 2016 [Reference 3].

By letter dated October 27, 2015 [Reference 4], the NRC provided its final determination of licensee seismic probabilistic risk assessments (SPRAs) and identified SPRA submittal dates for applicable licensees, including a March 31, 2019 submittal date for H. B. Robinson.

On March 24, 2016, the NRC issued a White Paper that concluded the need for regulatory action due to risks associated with seismic failure of the H. B. Robinson downstream dam and concurrent failure of other onsite water sources will be addressed through NTTF Recommendation 2.1 activities. Therefore, the NRC staff concluded that additional regulatory actions are not warranted for Robinson (outside any that may arise through the NTTF Recommendation 2.1 activities)[Reference 8].

Based upon the NRC staff conclusion, as stated above and as reflected in Reference 8, and an April 25, 2016 call with NRC on the subject of Pre-Generic Issue 11, "Effects of Downstream Dam Failures on Nuclear Power Plants," Duke Energy was requested to provide confirmation that the SPRA for H.B. Robinson will evaluate both on-site capabilities as well as the Lake Robinson dam against the new ground motion response spectra (GMRS).

The SPRA to be submitted in response to Recommendation 2.1 of the March 12, 2012 request for information [Reference 1] for H.B. Robinson is being prepared following the NRC endorsed guidance of EPRI Technical Report 1025287, "Seismic Evaluation Guidance – Screening Prioritization and Implementation Details (SPID) for the Resolution of Fukushima Near-Term Task Force Recommendation 2.1: Seismic" [Reference 5]. Section 6.6.2 of the SPID states that performance of elements of an SPRA will meet the intent of the requirements corresponding to Capability Category II of the ASME/ANS PRA Standard (Addenda A and Addenda B) [References 6 & 7].

The H.B. Robinson UFSAR, Section 9.2 states that Lake Robinson is the source for the Service Water System (SWS). The SWS is designed to provide cooling water to those components necessary for plant safety either during normal operation or under accident conditions, and is capable of supplying water to the suction of the auxiliary feedwater pumps in the event of loss of other sources. The "A", "B", and "C" Deepwell pumps are a source of water to the auxiliary feedwater pumps in the event of failure of the water source from Lake Robinson. The "D" Deepwell

pump also provides an alternate source of cooling water to the SWS (upon loss of Service Water). Therefore, the Lake Robinson dam and Deepwell pumps A, B, C, and D are credited or can be used to support critical safety functions of the plant whose failure may contribute to core damage or large early release, or both.

Based on their safety significance, the Lake Robinson dam and the Deepwell pumps A, B, C, and D shall be included in the SPRA consistent with the High Level and Supporting requirements for the ASME/ANS PRA Standard, Part 5, Requirements for Seismic Events At-Power PRA [References 6 & 7]. The seismic fragility evaluations shall be performed to estimate the seismic fragilities of the Lake Robinson dam and the Deepwell pumps A, B, C, and D per High Level Requirement HLR-SFR-A of the ASME/ANS Standard [Reference 6 & 7]. Also, the seismic-PRA systems model shall include seismic-caused initiating events and other failures per High Level requirement HLR-SPR-A of the ASME/ANS PRA Standard [Reference 6 & 7].

There are no regulatory commitments associated with this letter.

If you have any questions regarding this submittal, please contact Mr. Scott Connelly, Manager (Acting) – Nuclear Regulatory Affairs at (843) 857-1569.

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

Executed On: May 23, 2016

Sincerely,

R. Michael Glover

R. Michael Glover
Site Vice President

RMG/am

cc: NRC Resident Inspector, HBRSEP Unit No. 2
NRC Regional Administrator, NRC, Region II
Dennis Gavin, NRC Project Manager, NRR
Joseph Sebrosky, NRC Senior Project Manager, JLD-NRR