

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

October 25, 2023

Ms. Laura Basta Site Vice President H. B. Robinson Steam Electric Plant Duke Energy Progress, LLC 3581 West Entrance Road, RNPA11 Hartsville, SC 29550

SUBJECT: H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2 – STAFF ASSESSMENT OF UPDATED SEISMIC HAZARDS FOLLOWING THE NRC PROCESS FOR THE ONGOING ASSESSMENT OF NATURAL HAZARDS INFORMATION

Dear Ms. Basta:

The purpose of this letter is to document the U.S. Nuclear Regulatory Commission (NRC) staff's assessment of seismic hazards at the H. B Robinson Steam Electric Plant, Unit No. 2 (Robinson) following the process for the ongoing assessment of natural hazards information.

The enclosed seismic hazard reports provide the NRC staff's updated seismic hazard curves and response spectra for Robinson that are based on the implementation of (1) a new seismic ground motion model for the central and eastern North America and (2) recent advances in site response analysis. The NRC staff's updated hazard curves and site amplification factors are included in the enclosed seismic hazard reports. The NRC staff conducted a screening evaluation that compared the updated seismic hazard curves contained in the attached report with previous seismic hazard curves developed by Duke Energy Progress, LLC (Duke Energy) for Robinson. Based on its comparison and evaluation of the updated seismic hazard curves in combination with an estimate of the Robinson seismic capacity, permanent plant modifications completed by the licensee based on insights from their post-Fukushima seismic probabilistic risk assessments, and available information on the consideration of seismic events in Robinson's approved risk-informed programs, the NRC staff has determined that no further regulatory evaluation of, or action to modify, the Robinson plant seismic risk licensing basis is warranted.

Although the NRC staff is taking no further action at this time, the control point seismic hazard curves developed by the NRC staff for these reports may be considered in the context of potential future evaluations of the Robinson sites by the NRC staff (e.g., future license amendment requests) consistent with agency policy procedures (e.g., NRC Management Directive 8.4, "Management of Backfitting, Forward Fitting, Issue Finality, and Information Requests").

The NRC staff plans to make the enclosed Seismic Hazard Reports publicly available five working days from the date of this letter, pending the identification of any factual inaccuracies. If you have any questions, please contact me at (301) 415-0272 or via email at Luke.Haeg@nrc.gov.

Sincerely,

/**RA**/

Luke Haeg, Project Manager Plant Licensing Branch II-2 Division of Operating Reactor Licensing Office of Nuclear Reactor Regulation

Docket Nos. 50-261

Enclosure: Robinson Seismic Hazard Report

ENCLOSURE

ROBINSON SEISMIC HAZARDS REPORT

SUBJECT: H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2 – STAFF ASSESSMENT OF UPDATED SEISMIC HAZARDS FOLLOWING THE NRC PROCESS FOR THE ONGOING ASSESSMENT OF NATURAL HAZARDS INFORMATION DATED OCTOBER 25, 2023

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NRR-106

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