

BWRX-300 Overpressure Topical Report Audit Summary

By letter dated December 30, 2019 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML19364A210), GE-Hitachi Nuclear Energy Americas, LLC (GEH) submitted Licensing Topical Report NEDC-33910, Revision 0, "BWRX-300 Reactor Pressure Vessel Isolation and Overpressure Protection" (ADAMS Accession No. ML19364A211) for review by the U.S. Nuclear Regulatory Commission (NRC).

As a contingency for the review of NEDC-33910, the NRC staff prepared a plan on March 12, 2020 (ADAMS Accession No. ML20072L727) for a regulatory audit of the technical information in the GEH electronic reading room (eRR) supporting the topical report describing the reactor pressure vessel (RPV) isolation and overpressure protection features of the BWRX-300 small modular reactor (SMR). If it was determined that an audit was needed, the staff specified that the objectives of the audit would be (1) to gain a better understanding of the detailed calculations, analyses, and bases underlying NEDC-33910, and confirm the staff's understanding of those calculations, analyses, and bases; (2) to better understand if the methodology meets NRC regulations and conforms to regulatory guidance; and (3) to develop requests for additional information (RAI).

The NRC staff conducted an entrance meeting for the audit by telephone conference with GEH on March 12, 2020. During its review, the staff prepared RAIs on specific aspects of NEDC-33910 and held telephone conferences to discuss the details of the RAIs and GEH responses. Based on the acceptable RAI responses submitted by GEH, the staff determined that the review of technical documents in the GEH eRR was not necessary to prepare a safety evaluation describing its review of NEDC-33910. The staff conducted an exit meeting for the audit by telephone conference with GEH on June 25, 2020.

The NRC staff has closed its audit of NEDC-33910 for the RPV isolation and overpressure protection features of the BWRX-300 SMR. The staff did not identify any follow-up items during the BWRX-300 overpressure protection audit. The staff is currently preparing its safety evaluation describing its review of the RPV isolation and overpressure protection features provided in NEDC-33910 for the BWRX-300 SMR.