

UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

June 26, 2020

Ms. Michelle Catts Senior Vice President, Regulatory Affairs GE-Hitachi Nuclear Energy Americas, LLC.

SUBJECT: SAFETY EVALUATION FOR GE-HITACHI LICENSING TOPICAL REPORT

NEDC-33910P, REVISION 0, SUPPLEMENT 2, "BWRX-300 REACTOR PRESSURE VESSEL ISOLATION AND OVERPRESSURE PROTECTION"

(DOCKET No. 99900003)

Dear Ms. Catts:

By letter dated December 30, 2019, GE-Hitachi Nuclear Energy Americas, LLC (GEH) submitted Licensing Topical Report (TR) NEDC-33910P, Revision 0, "BWRX-300 Reactor Pressure Vessel Isolation and Overpressure Protection" (Agencywide Documents Access and Management System Accession No. ML19364A209), to the U.S. Nuclear Regulatory Commission (NRC) staff for review. In that letter, GEH requested the NRC staff to review and approve the design requirements, acceptance criteria, and regulatory basis for the BWRX-300 reactor pressure vessel isolation and overpressure protection design functions. GEH further requested that the NRC staff review this information, determine its acceptability for use, and issue a final Safety Evaluation (SE) no later than June 26, 2020.

It is the NRC staff's understanding that NEDC-33910P will be referenced in a future application for a construction permit for the BWRX-300 small modular reactor (SMR), an evolutionary boiling water reactor based on GEH's Economic Simplified Boiling Water Reactor (ESBWR) design previously licensed by the NRC staff.

The NRC staff informed GEH that it had accepted NEDC-33910P for review in a letter dated February 27, 2020 (ADAMS Accession No. ML20055E325). By letter dated June 4, 2020 (ADAMS Accession No. ML20156A270), GEH submitted Revision 0, Supplement 1, of this TR for NRC staff review and approval. A public version of Revision 0 Supplement 1 of this TR can be found under ADAMS Accession No. ML20156A273. By letter dated June 22, 2020 (ADAMS Accession No. ML20174A574), GEH submitted Revision 0, Supplement 2, of this TR for the NRC staff's review and approval. A public version of Revision 0, Supplement 2, of this TR can be found under ADAMS Accession No. ML 20174A577.

The NRC staff's safety evaluation (SE) for NEDC-33910P, Revision 0, Supplement 2, is available in ADAMS under Accession No. ML20176A446 (Package).

M. Catts - 2 -

If you have any questions or comments concerning this matter, I can be reached at (301) 415-7334 or via e-mail address at Rani.Franovich@nrc.gov.

Sincerely,

/RA/

Rani Franovich, Project Manager New Reactor Licensing Branch Division of New and Renewed Licenses Office of Nuclear Reactor Regulation

Docket No.: 99900003

cc: GEH BWRX-300 NEDC-33910P ListServ

M. Catts - 3 -

SAFETY EVALUATION FOR GE-HITACHI LICENSING TOPICAL REPORT SUBJECT:

> NEDC-33910P, REVISION 0, SUPPLEMENT 2, "BWRX-300 REACTOR PRESSURE VESSEL ISOLATION AND OVERPRESSURE PROTECTION"

(DOCKET No. 99900003) DATED: JUNE 26, 2020

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GEH BWRX-300 NEDC-33910P ListServ

ADAMS Accession Nos.: PKG: ML20176A446

Letter: ML20176A448

SER: ML20176A449 (PUBLIC)

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