



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

March 23, 2018

MEMORANDUM TO: Andrea Veil, Executive Director
Advisory Committee on Reactor Safeguards

FROM: Frank M. Akstulewicz, Director /RA/
Division of New Reactor Licensing
Office of New Reactors

SUBJECT: ADVANCED POWER REACTOR 1400 DESIGN CERTIFICATION
APPLICATION - SAFETY EVALUATION WITH NO OPEN ITEMS FOR
TOPICAL REPORT APR1400-F-A-TR-12004, "REALISTIC
EVALUATION METHODOLOGY FOR LARGE-BREAK LOSS OF
COOLANT ACCIDENT OF THE APR1400"

By letter dated December 23, 2014, as supplemented by letters dated March 10, 2017, and March 8, 2018, Korea Electric Power Corporation (KEPCO) and Korea Hydro & Nuclear Power Co (KHNP), Ltd. submitted an application to the U.S. Nuclear Regulatory Commission (NRC) for a design certification of the Advanced Power Reactor 1400 (APR1400) Standard Design, pursuant to Title 10 of the *Code of Federal Regulations* Part 52, "Licenses, Certifications, and Approvals for Nuclear Power Plants." By letter dated January 7, 2013, KHNP submitted for staff review the Topical Report APR1400-F-A-TR-12004, Revision 0, "Realistic Evaluation Methodology for Large-Break Loss of Coolant Accident of the APR1400" (ML130230128). Proprietary Revision 1 of the Topical Report was submitted on August 11, 2017 (ML17240A229) and Non-Proprietary Revision 1 was submitted on August 25, 2017 (ML17250A233).

Based on our review of the application, the staff is providing the Advisory Committee on Reactor Safeguards (ACRS) its Topical Report Safety Evaluation (TRSE) with no Open Items for Topical Report APR1400-F-A-TR-12004, (Agencywide Documents Access and Management System (ADAMS) Accession No. [ML17265A433](#)). Unless otherwise stated in the TRSE, the staff's review was based on Revision 1 of the Topical Report. The TRSE is being provided to support a meeting of the subcommittee of the ACRS scheduled for April 17 - 19, 2018. The ACRS full committee meeting will be held after the subcommittee meeting.

The staff concludes that the TRSE does contain information exempt from public disclosure. However, the U.S. Nuclear Regulatory Commission will withhold the SE from public disclosure for ten business days to allow KHNP the opportunity to verify the staff's conclusion that the SE contains exempt information. Therefore, the staff requests that the ACRS withhold the SE from public disclosure unless the information can be released publicly in the ADAMS.

The staff will inform the ACRS immediately if KHNP requests that any of the information in the SE be released for public disclosure.

Docket No.: 52-046

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SUBJECT: ADVANCED POWER REACTOR 1400 DESIGN CERTIFICATION APPLICATION -
SAFETY EVALUATION WITH NO OPEN ITEMS FOR TOPICAL REPORT
APR1400-F-A-TR-12004, "REALISTIC EVALUATION METHODOLOGY FOR
LARGE-BREAK LOSS OF COOLANT ACCIDENT OF THE APR1400"
DATED: 3/23/2018

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ADAMS Accession Nos.:

PKG: ML17265A104

MEMO: ML17265A269

SER: ML17265A433

***via email**

NRO-002

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DATE	9/21/2017	12/13/2017	3/23/2018	3/22/2018	3/23/2018

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