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August 10, 2018
Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Attention: Mr. William Ward
Division of New Reactor Licensing

Docket No. 52-046
MKD/NW-18-0123L

Subject: Submittal of Accepted Versions of Topical Report APR1400-F-A-TR-12004-P-A/-NP-A, "Realistic Evaluation Methodology for Large-Break LOCA of the APR1400"

References: APR1400 Final Safety Evaluation for Topical Report APR1400-F-A-TR-12004-P, Revision 1, "Realistic Evaluation Methodology for Large-Break LOCA of the APR1400", dated July 31, 2018

Korea Hydro & Nuclear Power Co., LTD (KHNP) hereby submits the accepted version of topical report APR1400-F-A-TR-12004-P-A, "Realistic Evaluation Methodology for Large-Break LOCA of the APR1400" dated August 2018 for use in the parts of KEPCO/KHNP's APR1400 design certification application. The nonproprietary version of this report is also transmitted herewith. This report describes a code-accuracy-based realistic evaluation methodology (CAREM) for large-break loss-of-coolant accident (LBLOCA) in APR1400 and demonstrates its application to Shin-Kori Units 3&4, the reference APR1400 plants, and it also includes its historical review information including RAI responses.

Enclosure 1 contains a copy of the associated affidavit. Enclosure 2 provides the proprietary version of the report titled "Realistic Evaluation Methodology for Large-Break LOCA of the APR1400". Enclosure 3 provides the non-proprietary version of the report titled "Realistic Evaluation Methodology for Large-Break LOCA of the APR1400".

If additional information or clarification is required, please contact Daegeun Ahn, Director of KHNP Washington DC Center at ahn.daegeun@khnp.co.kr or 703-388-0592.

Sincerely,

Yun-ho Kim
Project Manager
Advanced Reactors Development Laboratory
Korea Hydro & Nuclear Power Co., Ltd.



Enclosures:

1. Affidavit KAW-18-0123
2. APR1400-F-A-TR-12004-P-A, "Realistic Evaluation Methodology for Large-Break LOCA of the APR1400" (Proprietary)
3. APR1400-F-A-TR-12004-NP-A, "Realistic Evaluation Methodology for Large-Break LOCA of the APR1400" (Non-Proprietary)

Enclosure 1

Affidavit KAW-18-0123

I, Jeong-kwan Suh, state the following:

1. I am the General Manager of Korea Hydro & Nuclear Power Co., Ltd. (KHNP), and as such I am authorized to request withholding the information transmitted with this letter from public disclosure and to execute this affidavit.
2. I am familiar with the criteria applied by KHNP to determine whether certain information is proprietary, and with the policies established by KHNP to ensure the proper application of these criteria.
3. The information, report APR1400-F-A-TR-12004-P-A, "Realistic Evaluation Methodology for Large-Break LOCA of the APR1400", transmitted with this letter has been classified by KHNP as proprietary in accordance with the policies for the control and protection of proprietary and confidential information. The information regarded as proprietary is identified and marked consistent with the requirements of 10 CFR 2.390, § (b)(1)(i). Accordingly, the proprietary information is enclosed within brackets and the right-hand bracket carries a notation of "TS" to indicate that the trade secret nature of the information claimed to be proprietary is the basis for proposing that the information so identified be withheld from public disclosure.
4. Pursuant to the considerations set forth in 10 CFR Section 2.390(a), KHNP considers the information classified as proprietary to be "trade secret" information since it is design, analysis, or test information that would be difficult for a competitor to reproduce and hence provides an economic and competitive advantage to KHNP.
5. The need for designating the information as proprietary has been raised within KHNP. The information is being treated proprietary and confidential and has not been disclosed by KHNP to the public.
6. Nondisclosure of the proprietary information transmitted with this letter is vital to the competitiveness held by KHNP and, hence, disclosure of the proprietary information transmitted in with this letter would have negative commercial impacts on the competitive position of KHNP in the U.S. nuclear market.
7. In accordance with KHNP policy, proprietary information contained in this document may be, or may have been, made available on a limited basis to regulatory bodies, customers, potential customers, and their agents, suppliers, and licensees, and others under suitable agreements providing for nondisclosure and limited use of the information.

I declare that the foregoing statements are true and correct to the best of my knowledge, information and belief.



KHNP
KOREA HYDRO & NUCLEAR POWER CO., LTD

Executed on August 10, 2018

Jeongkwan Suh

Jeong-kwan Suh

General Manager

APR1400 Licensing Team

Korea Hydro and Nuclear Power Co., Ltd

Enclosure 2

APR1400-F-A-TR-12004-P-A,
“Realistic Evaluation Methodology for Large-Break LOCA of the
APR1400”

(Proprietary)

Enclosure 3

APR1400-F-A-TR-12004-NP-A,
“Realistic Evaluation Methodology for Large-Break LOCA of the
APR1400”

(Non-Proprietary)