

**KHNP****KOREA HYDRO & NUCLEAR POWER CO., LTD**

70-1312-gil, Yuseong-daero, Yuseong-gu, Daejeon, 305-343, KOREA

Tel: +82-42-870-5400 / Fax: +82-42-870-5449

<http://www.khnp.co.kr>

April 22, 2016
Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Attention: Mr. Jeff Ciocco
Division of New Reactor Licensing

Docket No. 52-046
MKD/NW-16-0418L

Subject: Revised Response to RAI 179-8190

- References:**
- 1) NRC Request for Additional Information 179-8190, dated September 1, 2015
 - 2) KHNP Letter MKD/NW-15-0182L, Response to RAI 179-8190 for Question on a 30-Day Response Cycle, dated October 19, 2015
 - 3) KHNP Letter MKD/NW-15-0349L, Response to RAI 179-8190 for Question on a 60-Day Response Cycle, dated December 10, 2015
 - 4) KHNP Letter MKD/NW-16-0041L, Response to RAI 179-8190 for Question 09.01.01-18, dated January 15, 2016
 - 5) KHNP Letter MKD/NW-16-0113L, Response to RAI 179-8190 for the Question 09.01.01-15, dated February 3, 2016
 - 6) KHNP Letter MKD/NW-16-0402L, Revised Response to RAI 167-8191, dated April 22, 2016

KHNP is hereby submitting the revised response to RAI 179-8190, dated August 20, 2015. The revised RAI responses addresses Questions 09.01.01-15, 09.01.01-19, 09.01.01-20, 09.01.01-23, 09.01.01-25, and 09.01.01-26 in response to the conference call with NRC, dated February 4, 2015. It clarified that the misstatements in DCD will be corrected to have consistency with the criticality analysis TeR and vice versa. The RAI revised RAI responses also addresses Question 09.01.01-16 in order to ensure the consistency with reference 6. It provided the revised loading curve in Figure 3.5-7 of the critical analysis TeR to comply the regulatory limit ($k_{\text{eff}} < 1.0$).

Enclosure 1 contains a copy of the associated affidavit. Enclosure 2 provides the revised responses to RAI 179-8190 for the Questions 09.01.01-15, 09.01.01-16, 09.01.01-19, 09.01.01-20, 09.01.01-23, 09.01.01-25, and 09.01.01-26 (Proprietary). Enclosure 3 provides the revised responses to RAI 179-8190 for the Questions 09.01.01-15, 09.01.01-16, 09.01.01-19, 09.01.01-20, 09.01.01-23, 09.01.01-25, and 09.01.01-26 (Non-Proprietary).

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,



Jae-yong Lee
Project Manager
Advanced Reactors Development Laboratory
Korea Hydro and Nuclear Power Co., Ltd

Enclosures:

1. Affidavit KAW-16-0418
2. Revised Response to RAI 179-8190 for the Questions 09.01.01-15, 16, 19, 20, 23, 25, and 26
(Proprietary)
3. Revised Response to RAI 179-8190 for the Questions 09.01.01-15, 16, 19, 20, 23, 25, and 26
(Non-Proprietary)

Enclosure 1

Affidavit KAW-16-0418

I, Yun-ho Kim, 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, Response to RAI 179-8190 for the Questions 09.01.01-15, 09.01.01-16, 09.01.01-19, 09.01.01-20, 09.01.01-23, 09.01.01-25, and 09.01.01-26 (Proprietary), 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.

Executed on April 22, 2016.



Yun-ho Kim
General Manager
APR1400 Licensing Team
Central Research Institute
Korea Hydro and Nuclear Power Co., Ltd

Enclosure 2

Revised Response to RAI 179-8190 for the Questions 09.01.01-15, 16,
19, 20, 23, 25, and 26

(Proprietary)

April 22, 2016

Enclosure 3

Revised Response to RAI 179-8190 for the for the Questions 09.01.01-15, 16, 19, 20, 23, 25, and 26

(Non-Proprietary)

April 22, 2016