



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>

March 8, 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-18-0022L

Subject: Revised Response to RAI 426-8492 for Question 19-53 (Rev.4)

- References:**
- 1) NRC Request for Additional Information 426-8492, dated March 1, 2016
 - 2) KHNP Letter MKD/NW-15-0070L, Response to RAI 426-8492 for Question 19-53, dated June 15, 2016
 - 3) KHNP Letter MKD/NW-16-0876L, Revised Response to RAI 426-8492 for Question 19-53, dated August 10, 2016
 - 4) KHNP Letter MKD/NW-17-0332L, Revised Response to RAI 426-8492 for Question 19-53 (Rev.2), dated October 20, 2017
 - 5) KHNP Letter MKD/NW-17-0376L, Revised Response to RAI 426-8492 for Question 19-53 (Rev.3), dated December 15, 2017

KHNP is hereby submitting the response to RAI 426-8492, dated March 1, 2016. The revised response addresses Question 19-53 relating staff comparison of MELCOR and MAAP results for low power shutdown during hatch-open condition. In addition, our response provides additional information for the NRC Staff relating to the APR1400 Severe Accident Analysis and containment pressure resulting from MCCI.

Enclosure 1 contains a copy of the associated affidavit. Enclosure 2 provides the revised response to RAI 426-8492 for Question 19-53 (Rev.4) (Proprietary). Enclosure 3 provides the revised response to RAI 426-8492 for Question 19-53 (Rev.4) (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,

Han-gon Kim
Project Manager
Advanced Reactors Development Laboratory



Korea Hydro & Nuclear Power Co., Ltd.

Enclosures:

1. Affidavit KAW-18-0022
2. Revised Response to RAI 426-8492 for Question 19-53 (Rev.4) (Proprietary)
3. Revised Response to RAI 426-8492 for Question 19-53 (Rev.4) (Non-Proprietary)

Enclosure 1

Affidavit KAW-18-0022

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, Revised Response to RAI 426-8492 for Question 19-53 (Rev.4) (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 March 8, 2018.



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

Enclosure 2

Revised Response to RAI 426-8492 for Question 19-53 (Rev.4)

(Proprietary)

March 8, 2018

Enclosure 3

Revised Response to RAI 426-8492 for Question 19-53 (Rev.4)

(Non-Proprietary)

March 8, 2018