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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-18-0035L

**Subject: APR1400 Standard Design Certification Application Design Control Document,
Revision 2, Tier 1 and Tier2**

**References: 1) KHNP Letter MKD/NW-14-0036L, Korea Electric Power Corporation and
Korea Hydro & Nuclear Power Co., Ltd Application for Design
Certification of the APR1400 Standard Design, dated December 23, 2014**
**2) KHNP Letter MKD/NW-17-0070L, APR1400 Standard Design Certification
Application Design Control Document, Revision 1, Tier 1 and Tier2, dated
March 10, 2017**

In Reference 1), Korea Electric Power Corporation and Korea Hydro & Nuclear Power Co., Ltd (KEPCO/KHNP) requested the application for design certification of the APR1400 standard design and requested approval of an accompanying amendment to the APR1400 Design Control Document (DCD) Revision 0, Tier 1 and Tier 2.

This letter transmits the APR1400 DCD Revision 2, Tier 1 and Tier 2 for use in KEPCO/KHNP's APR1400 Design Certification Application. Revision 2 of the APR1400 DCD incorporates information associated with document changes as a result of KEPCO/KHNP's responses to Requests for Additional Information (RAIs) and Action Items (AIs) submitted through December 31, 2017. This letter provides supporting information in four enclosures, as follows:

Enclosure 1 contains a table that identifies the impact on DCD, PRA, Technical Specifications and technical/topical reports resulting from responses to issued RAIs and AIs, as well as editorial corrections and minor changes resulting from self-assessment activities.

Enclosure 2 contains a list of the chapter-wise changes made in APR1400 DCD Revision 2.

Enclosure 3 contains the APR1400 DCD Revision 2. The DCD is being submitted electronically through compact discs (CDs) in two versions:

- The first version (in CD 1) includes Security-Related Information (SRI) protected from public disclosure under the provisions in 10 CFR 2.390. KEPCO/KHNP requests that the NRC withhold from public disclosure this information in accordance with the provisions of 10 CFR 2.390.
- The second version (in CD 2) omits the SRI, and it is suitable for public disclosure.



Enclosure 4 contains a table that identifies those responses to RAIs submitted after January 1, 2018 and were not incorporated in DCD Revision 2. These RAIs will be incorporated in the upcoming DCD Revision 3.

As noted in Reference 1), the APR1400 Design Certification Application was submitted in accordance with 10 CFR § 52.46 and 52.47 under Subpart B – Standard Design Certifications. The information that has been provided in the APR1400 standard design certification application essentially includes all the same technical information as prescribed in 10 CFR § 52.137, Contents of Applications; Technical Information, for standard design approvals under Subpart E - Standard Design Approvals. While KEPCO/KHNP continues to pursue Design Certification, we respectfully request the NRC accept and apply the technical information provided under the APR1400 Design Certification Application to support issuance of a Final Design Approval (FDA) pursuant to Subpart E.

We believe this is not inconsistent or at odds with prior Part 52 standard design applications or what the Commission recognized when it promulgated Subpart E -- establishing the specific application requirements in 10 CFR § 52.137. The Commission decided that the contents of applications for design approvals should contain essentially the same technical information that is required of design certification applications (e.g., demonstration of compliance with technically relevant Three Mile Island requirements, proposed technical resolutions of unresolved safety issues and medium- and high-priority generic safety issues, and design-specific probabilistic risk assessment information) [72 FR 49391, Aug. 28, 2007]. Additionally, we believe the scope, standards and depth of review conducted by the NRC Staff for design certification (under Subpart B) adequately encompass the scope, standards of review and fees that would be necessary for a standard design approval under Subpart E.

Therefore, KEPCO/KHNP kindly requests that, upon completion of its review and issuance of the NRC Staff's Final Safety Evaluation Report (FSER) and receipt of a report by the Advisory Committee on Reactor Safeguards resulting from the APR1400 design certification review, the NRC publish its FDA determination and provide a copy of the FDA by letter to KEPCO/KHNP when it becomes effective. We would anticipate this to occur this Fall (2018) shortly after completion of Phase 6 of the Design Certification review.

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.

I declare under penalty of perjury that the foregoing information is true and correct to the best of my knowledge, information, and belief.

Sincerely,

A handwritten signature in black ink, appearing to read "Kim Han Gon", is written over a horizontal line.

Han-gon Kim
Project Manager
Advanced Reactors Development Laboratory
Korea Hydro and Nuclear Power Co., Ltd

Enclosures:

1. APR1400 DCD RAI Tracking Report (Rev.2) (Non-Proprietary)
2. APR1400 DCD Change List (Rev.2) (Non-Proprietary)
3. APR1400 DCD Rev.2 (CD1 & CD2)
4. RAI Responses to be incorporated in the DCD Revision 3 (Non-Proprietary)

Enclosure 1

APR1400 DCD RAI Tracking Report (Rev.2)

(Non-Proprietary)

Enclosure 2

APR1400 DCD Change List (Rev.2)

(Non-Proprietary)

Enclosure 3

APR1400 Design Control Document Rev.2

(CD 1 & CD 2)

Enclosure 4

RAI Responses to be incorporated in the DCD Revision 3

(Non-Proprietary)

RAI Responses to be incorporated in the DCD Revision 3



Chapter	RAI Number	Question Number	Submittal Letter Number	Submittal Date
7	33-7880	07.08-1	MKD/NW-18-0020L	01/29/2018
17	316-8305	17.04-1	MKD/NW-18-0021L	01/31/2018
19	232-7864	19-7	MKD/NW-18-0018L	01/29/2018
19	232-7864	19-10	MKD/NW-18-0029L	02/20/2018
19	417-8359	19-42	MKD/NW-18-0028L MKD/NW-18-0017L	03/07/2018 01/25/2018
19	418-8348	19-45	MKD/NW-18-0034L	03/08/2018
19	426-8492	19-53	MKD/NW-18-0022L	03/08/2018
19	434-8352	19-85	MKD/NW-18-0030L	02/20/2018
19	434-8352	19-87	MKD/NW-18-0019L	01/26/2018
19	434-8352	19-92	MKD/NW-18-0014L	01/22/2018
ER	1-8428	EIS ACC/SA-15	MKD/NW-18-0003L	01/02/2018