

**KHNP**

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September 12, 2014  
 Document Control Desk  
 U.S. Nuclear Regulatory Commission  
 Washington, DC 20555-0001

Attention: Mr. Jeff Ciocco  
 Division of New Reactor Licensing

Project No.0782  
 MKD/NW-14-0030L

**Subject: Submittal of Final Presentation Materials for the August 26-28 Pre-Application Review Meeting on APR1400 Design**

The purpose of this letter is to transmit the final presentation materials for the Pre-Application Review Meeting which was held on August 26-28 between NRC and KEPCO/KHNP.

1. Enclosure 1 contains a copy of the associated affidavit from KHNP, and Enclosure 2 contains a copy of the affidavit from Westinghouse for Enclosure 11 and 13.
2. Presentation files are being submitted as listed below;

Enclosure #	Title	P/NP	Document #
Enclosure 3	Resolution Summary of Acceptance Review Results (Radiation Protection)	P	APR1400-E-R-EC-14003-P
Enclosure 4	Resolution Summary of Acceptance Review Results (Radiation Protection)	NP	APR1400-E-R-EC-14003-NP
Enclosure 5	Resolution Summary of Acceptance Review Results (Radwaste Management System)	P	APR1400-E-R-EC-14004-P
Enclosure 6	Resolution Summary of Acceptance Review Results (Radwaste Management System)	NP	APR1400-E-R-EC-14004-NP
Enclosure 7	APR1400 Digital I&C	P	APR1400-Z-J-EC-14006-P
Enclosure 8	APR1400 Digital I&C	NP	APR1400-Z-J-EC-14006-NP
Enclosure 9	APR1400 HFE	P	APR1400-K-J-EC-14007-P
Enclosure 10	APR1400 HFE	NP	APR1400-K-J-EC-14007-NP
Enclosure 11	APR1400 RCP Seal Design and ELAP Capability	P	APR1400-A-M-EC-14002-P (aka LTR-APR-14-10-P)
Enclosure 12	APR1400 RCP Seal Design and ELAP Capability	NP	APR1400-A-M-EC-14002-NP (aka LTR-APR-14-10-NP)
Enclosure 13	APR1400 Flywheel Integrity	P	APR1400-A-M-EC-14001-P (aka LTR-APR-14-9-P)
Enclosure 14	APR1400 Flywheel Integrity	NP	APR1400-A-M-EC-14001-NP (aka LTR-APR-14-9-NP)

D101  
 MRO

Enclosure 15	Turbine Missile Analysis	NP	APR1400-H-M-EC-14001-NP
Enclosure 16	Resolution Summary of Acceptance Review Results (RVI integrity-IASCC and Swelling)	NP	APR1400-Z-M-EC-14007-NP
Enclosure 17	Resolution Summary of Acceptance Review Results (RV Integrity at Weld Location)	P	APR1400-Z-M-EC-14008-P
Enclosure 18	Resolution Summary of Acceptance Review Results (RV Integrity at Weld Location)	NP	APR1400-Z-M-EC-14008-NP
Enclosure 19	PRA and ER/SAMDA	P	APR1400-E-P-EC-14005-P
Enclosure 20	PRA and ER/SAMDA	NP	APR1400-E-P-EC-14005-NP

As Enclosures 3, 5, 7, 9, 17, and 19 contain information proprietary to KHNP and as Enclosures 11 and 13 contain information proprietary to Westinghouse Electric Company LLC, they are supported by Affidavits signed respectively by KHNP and Westinghouse, the owners of the information. The Affidavits set forth the basis on which the information may be withheld from public disclosure by the Commission and address the considerations listed in paragraph (b)(4) of Section 2.390 of the Commission's regulations.

Accordingly, it is respectfully requested that the information which is proprietary to KHNP and Westinghouse be withheld from public disclosure in accordance with 10 CFR Section 2.390 of the Commission's regulations.

Correspondence with respect to the copyright or proprietary aspects of Enclosure 11 through 14 listed above or the supporting Westinghouse Affidavit should reference CAW-14-4012 and should be addressed to James A. Gresham, Manager, Regulatory Compliance, Westinghouse Electric Company, 1000 Westinghouse Drive, Building 3 Suite 310, Cranberry Township, Pennsylvania 16066.

If the NRC has other questions concerning any aspect of this submittal or of the KHNP proprietary material, please contact Yun-ho Kim, Director of KHNP Washington DC Center at yunhokim@khnp.co.kr or 703-388-0592.

Sincerely,



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

Enclosures:

1. Affidavit KAW-14-0030 (KHNP)
2. Affidavit CAW-14-4012 (Westinghouse)
3. "Resolution Summary of Acceptance Review Results (Radiation Protection)" (Proprietary) (APR1400-E-R-EC-14003-P)
4. "Resolution Summary of Acceptance Review Results (Radiation Protection)" (Non-Proprietary) (APR1400-E-R-EC-14003-NP)
5. "Resolution Summary of Acceptance Review Results (Radwaste Management System)" (Proprietary) (APR1400-E-R-EC-14004-P)
6. "Resolution Summary of Acceptance Review Results (Radwaste Management System)" (Non-Proprietary) (APR1400-E-R-EC-14004-NP)
7. "APR1400 Digital I&C" (Proprietary) (APR1400-Z-J-EC-14006-P)
8. "APR1400 Digital I&C" (Non-Proprietary) (APR1400-Z-J-EC-14006-NP)
9. "APR1400 HFE" (Proprietary) (APR1400-K-J-EC-14007-P)
10. "APR1400 HFE" (Non-Proprietary) (APR1400-K-J-EC-14007-NP)
11. "APR1400 RCP Seal Design and ELAP Capability" (Proprietary) (APR1400-A-M-EC-14002-P) (aka LTR-APR-14-10-P)
12. "APR1400 RCP Seal Design and ELAP Capability" (Non-Proprietary) (APR1400-A-M-EC-14002-NP) (aka LTR-APR-14-10-NP)
13. "APR1400 Flywheel Integrity" (Proprietary) (APR1400-A-M-EC-14001-P) (aka LTR-APR-14-9-P)
14. "APR1400 Flywheel Integrity" (Non-Proprietary) (APR1400-A-M-EC-14001-NP) (aka LTR-APR-14-9-NP)
15. "Turbine Missile Analysis" (Non-Proprietary) (APR1400-H-M-EC-14001-NP)
16. "Resolution Summary of Acceptance Review Results (RVI integrity-IASCC and Swelling)" (Non-Proprietary) (APR1400-Z-M-EC-14007-NP)
17. "Resolution Summary of Acceptance Review Results (RV Integrity at Weld Location)" (Proprietary) (APR1400-Z-M-EC-14008-P)
18. "Resolution Summary of Acceptance Review Results (RV Integrity at Weld Location)" (Non-Proprietary) (APR1400-Z-M-EC-14008-NP)
19. "PRA and ER/SAMDA" (Proprietary) (APR1400-E-P-EC-14005-P)
20. "PRA and ER/SAMDA" (Non-Proprietary) (APR1400-E-P-EC-14005-NP)

## ENCLOSURE 1

### Affidavit KAW-14-0030

I, Jae-yong Lee, 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, APR1400-E-R-EC-14003-P, APR1400-E-R-EC-14004-P, APR1400-Z-J-EC-14006-P, APR1400-K-J-EC-14007-P, APR1400-Z-M-EC-14008-P, APR1400-E-P-EC-14005-P, 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.



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

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

Executed on September 12, 2014.

A handwritten signature in black ink, reading "Jae-yong Lee", is written over a solid horizontal line.

Jae-yong Lee

General Manager

APR1400 Licensing Team

Central Research Institute

Korea Hydro & Nuclear Power Co., Ltd.



Enclosure 2

Westinghouse Electric Company  
Engineering, Equipment and Major Projects  
1000 Westinghouse Drive, Building 3  
Cranberry Township, Pennsylvania 16066  
USA

U.S. Nuclear Regulatory Commission  
Document Control Desk  
11555 Rockville Pike  
Rockville, MD 20852

Direct tel: (412) 374-4643  
Direct fax: (724) 940-8560  
e-mail: greshaja@westinghouse.com  
Proj letter: APR\_KHN\_000117

CAW-14-4012

September 9, 2014

APPLICATION FOR WITHHOLDING PROPRIETARY  
INFORMATION FROM PUBLIC DISCLOSURE

Subject: 1) LTR-APR-14-9-P, "APR1400 Flywheel Integrity Analysis," (Proprietary) and  
2) LTR-APR-14-10-P, "APR1400 RCP Seal Design and ELAP Capability," (Proprietary)

The proprietary information for which withholding is being requested in the above-referenced reports is further identified in Affidavit CAW-14-4012 signed by the owner of the proprietary information, Westinghouse Electric Company LLC. The Affidavit, which accompanies this letter, sets forth the basis on which the information may be withheld from public disclosure by the Commission and addresses with specificity the considerations listed in paragraph (b)(4) of 10 CFR Section 2.390 of the Commission's regulations.

Accordingly, this letter authorizes the utilization of the accompanying Affidavit by Korea Hydro & Nuclear Power Co. LTD.

Correspondence with respect to the proprietary aspects of the application for withholding or the Westinghouse Affidavit should reference CAW-14-4012, and should be addressed to James A. Gresham, Manager, Regulatory Compliance, Westinghouse Electric Company, 1000 Westinghouse Drive, Building 3 Suite 310, Cranberry Township, Pennsylvania 16066.

Very truly yours,

A handwritten signature in black ink, appearing to read 'James A. Gresham'.

James A. Gresham, Manager

Regulatory Compliance

Enclosures


AFFIDAVIT

COMMONWEALTH OF PENNSYLVANIA:

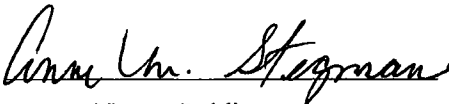
SS

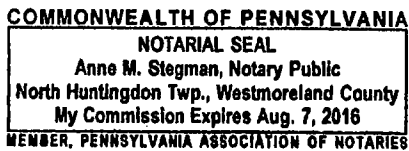
COUNTY OF BUTLER:

Before me, the undersigned authority, personally appeared James A. Gresham, who, being by me duly sworn according to law, deposes and says that he is authorized to execute this Affidavit on behalf of Westinghouse Electric Company LLC (Westinghouse), and that the averments of fact set forth in this Affidavit are true and correct to the best of his knowledge, information, and belief:

  
James A. Gresham, Manager  
Regulatory Compliance

Sworn to and subscribed before me  
this 9th day of September 2014

  
Notary Public



- (1) I am Manager, Regulatory Compliance, Westinghouse Electric Company LLC (Westinghouse), and as such, I have been specifically delegated the function of reviewing the proprietary information sought to be withheld from public disclosure in connection with nuclear power plant licensing and rule making proceedings, and am authorized to apply for its withholding on behalf of Westinghouse.
- (2) I am making this Affidavit in conformance with the provisions of 10 CFR Section 2.390 of the Commission's regulations and in conjunction with the Westinghouse Application for Withholding Proprietary Information from Public Disclosure accompanying this Affidavit.
- (3) I have personal knowledge of the criteria and procedures utilized by Westinghouse in designating information as a trade secret, privileged or as confidential commercial or financial information.
- (4) Pursuant to the provisions of paragraph (b)(4) of Section 2.390 of the Commission's regulations, the following is furnished for consideration by the Commission in determining whether the information sought to be withheld from public disclosure should be withheld.
  - (i) The information sought to be withheld from public disclosure is owned and has been held in confidence by Westinghouse.
  - (ii) The information is of a type customarily held in confidence by Westinghouse and not customarily disclosed to the public. Westinghouse has a rational basis for determining the types of information customarily held in confidence by it and, in that connection, utilizes a system to determine when and whether to hold certain types of information in confidence. The application of that system and the substance of that system constitute Westinghouse policy and provide the rational basis required.

Under that system, information is held in confidence if it falls in one or more of several types, the release of which might result in the loss of an existing or potential competitive advantage, as follows:

    - (a) The information reveals the distinguishing aspects of a process (or component, structure, tool, method, etc.) where prevention of its use by any of



Westinghouse's competitors without license from Westinghouse constitutes a competitive economic advantage over other companies.

- (b) It consists of supporting data, including test data, relative to a process (or component, structure, tool, method, etc.), the application of which data secures a competitive economic advantage, e.g., by optimization or improved marketability.
  - (c) Its use by a competitor would reduce his expenditure of resources or improve his competitive position in the design, manufacture, shipment, installation, assurance of quality, or licensing a similar product.
  - (d) It reveals cost or price information, production capacities, budget levels, or commercial strategies of Westinghouse, its customers or suppliers.
  - (e) It reveals aspects of past, present, or future Westinghouse or customer funded development plans and programs of potential commercial value to Westinghouse.
  - (f) It contains patentable ideas, for which patent protection may be desirable.
- (iii) There are sound policy reasons behind the Westinghouse system which include the following:
- (a) The use of such information by Westinghouse gives Westinghouse a competitive advantage over its competitors. It is, therefore, withheld from disclosure to protect the Westinghouse competitive position.
  - (b) It is information that is marketable in many ways. The extent to which such information is available to competitors diminishes the Westinghouse ability to sell products and services involving the use of the information.
  - (c) Use by our competitor would put Westinghouse at a competitive disadvantage by reducing his expenditure of resources at our expense.

- (d) Each component of proprietary information pertinent to a particular competitive advantage is potentially as valuable as the total competitive advantage. If competitors acquire components of proprietary information, any one component may be the key to the entire puzzle, thereby depriving Westinghouse of a competitive advantage.
  - (e) Unrestricted disclosure would jeopardize the position of prominence of Westinghouse in the world market, and thereby give a market advantage to the competition of those countries.
  - (f) The Westinghouse capacity to invest corporate assets in research and development depends upon the success in obtaining and maintaining a competitive advantage.
- (iv) The information is being transmitted to the Commission in confidence and, under the provisions of 10 CFR Section 2.390, it is to be received in confidence by the Commission.
- (v) The information sought to be protected is not available in public sources or available information has not been previously employed in the same original manner or method to the best of our knowledge and belief.
- (vi) The proprietary information sought to be withheld in this submittal is that which is appropriately marked in documents:
- 1) LTR-APR-14-9-P, "APR1400 Flywheel Integrity Analysis" (Proprietary), and
  - 2) LTR-APR-14-10-P, "APR1400 RCP Seal Design and ELAP Capability" (Proprietary),
- for submittal to the Commission, being transmitted by Korea Hydro & Nuclear Power Co., LTD letter and Application for Withholding Proprietary Information from Public Disclosure, to the Document Control Desk. The proprietary information as submitted by Westinghouse is that associated with the APR1400 Design Certification program and may be used only for that purpose.

- (a) This information is part of that which will enable Westinghouse to:
- (i) Provide design and analysis information that is owned and controlled by Westinghouse to the NRC on behalf of Korea Hydro & Nuclear Power Co., LTD.
- (b) Further this information has substantial commercial value as follows:
- (i) Westinghouse plans to sell the use of the information to its customers for the purpose of selling additional reactor coolant pump replacement seals, flywheel integrity analyses, and related services.
  - (ii) Westinghouse can sell support and defense of its methods for analysis of reactor coolant pump seal leakage and flywheel integrity under accident conditions.
  - (iii) The information requested to be withheld reveals the distinguishing aspects of a methodology which was developed by Westinghouse.

Public disclosure of this proprietary information is likely to cause substantial harm to the competitive position of Westinghouse because it would enhance the ability of competitors to provide similar technical evaluation justifications and licensing defense services for commercial power reactors without commensurate expenses. Also, public disclosure of the information would enable others to use the information to meet NRC requirements for licensing documentation without purchasing the right to use the information.

The development of the technology described in part by the information is the result of applying the results of many years of experience in an intensive Westinghouse effort and the expenditure of a considerable sum of money.

In order for competitors of Westinghouse to duplicate this information, similar technical programs would have to be performed and a significant manpower effort, having the requisite talent and experience, would have to be expended.

Further the deponent sayeth not.

## **PROPRIETARY INFORMATION NOTICE**

Transmitted herewith are proprietary and non-proprietary versions of documents furnished to the NRC in connection with that associated with the APR1400 Design Certification program and may be used only for that purpose.

In order to conform to the requirements of 10 CFR 2.390 of the Commission's regulations concerning the protection of proprietary information so submitted to the NRC, the information which is proprietary in the proprietary versions is contained within brackets, and where the proprietary information has been deleted in the non-proprietary versions, only the brackets remain (the information that was contained within the brackets in the proprietary versions having been deleted). The justification for claiming the information so designated as proprietary is indicated in both versions by means of lower case letters (a) through (f) located as a superscript immediately following the brackets enclosing each item of information being identified as proprietary or in the margin opposite such information. These lower case letters refer to the types of information Westinghouse customarily holds in confidence identified in Sections (4)(ii)(a) through (4)(ii)(f) of the Affidavit accompanying this transmittal pursuant to 10 CFR 2.390(b)(1).

## **COPYRIGHT NOTICE**

The reports transmitted herewith each bear a Westinghouse copyright notice. The NRC is permitted to make the number of copies of the information contained in these reports which are necessary for its internal use in connection with generic and plant-specific reviews and approvals as well as the issuance, denial, amendment, transfer, renewal, modification, suspension, revocation, or violation of a license, permit, order, or regulation subject to the requirements of 10 CFR 2.390 regarding restrictions on public disclosure to the extent such information has been identified as proprietary by Westinghouse, copyright protection notwithstanding. With respect to the non-proprietary versions of these reports, the NRC is permitted to make the number of copies beyond those necessary for its internal use which are necessary in order to have one copy available for public viewing in the appropriate docket files in the public document room in Washington, DC and in local public document rooms as may be required by NRC regulations if the number of copies submitted is insufficient for this purpose. Copies made by the NRC must include the copyright notice in all instances and the proprietary notice if the original was identified as proprietary.

**ENCLOSURE 3**

APR1400-E-R-EC-14003-P  
“Resolution Summary of Acceptance Review Results  
(Radiation Protection)”

(Proprietary)

September 2014

**ENCLOSURE 4**

APR1400-E-R-EC-14003-NP  
“Resolution Summary of Acceptance Review Results  
(Radiation Protection)”

(Non-Proprietary)

September 2014

**ENCLOSURE 5**

APR1400-E-R-EC-14004-P  
“Resolution Summary of Acceptance Review Results  
(Radwaste Management System)”

(Proprietary)

September 2014



**ENCLOSURE 6**

APR1400-E-R-EC-14004-NP  
“Resolution Summary of Acceptance Review Results  
(Radwaste Management System)”

(Non-Proprietary)

September 2014

**ENCLOSURE 7**

APR1400-Z-J-EC-14006-P  
“APR1400 Digital I&C”

(Proprietary)

September 2014

**ENCLOSURE 8**

APR1400-Z-J-EC-14006-NP  
“APR1400 Digital I&C”

(Non-Proprietary)

September 2014

**ENCLOSURE 9**

APR1400-K-J-EC-14007-P  
“APR1400 HFE”

(Proprietary)

September 2014

**ENCLOSURE 10**

APR1400-K-J-EC-14007-NP  
“APR1400 HFE”

(Non-Proprietary)

September 2014

**ENCLOSURE 11**

APR1400-A-M-EC-14002-P  
“APR1400 RCP Seal Design and ELAP Capability”

(Proprietary)

September 2014



**ENCLOSURE 12**

APR1400-A-M-EC-14002-NP  
“APR1400 RCP Seal Design and ELAP Capability”

(Non-Proprietary)

September 2014

**ENCLOSURE 13**

APR1400-A-M-EC-14001-P  
“APR1400 Flywheel Integrity”

(Proprietary)

September 2014



**ENCLOSURE 14**

APR1400-A-M-EC-14001-NP  
“APR1400 Flywheel Integrity”

(Non-Proprietary)

September 2014

**ENCLOSURE 15**

APR1400-H-M-EC-14001-NP  
“Turbine Missile Analysis”

(Non-Proprietary)

September 2014

**ENCLOSURE 16**

APR1400-Z-M-EC-14007-NP  
“Resolution Summary of Acceptance Review Results  
(RVI integrity-IASCC and Swelling)”

(Non-Proprietary)

September 2014

**ENCLOSURE 17**

APR1400-Z-M-EC-14008-P  
“Resolution Summary of Acceptance Review Results  
(RV Integrity at Weld Location)”

(Proprietary)

September 2014

**ENCLOSURE 18**

APR1400-Z-M-EC-14008-NP  
“Resolution Summary of Acceptance Review Results  
(RV Integrity at Weld Location)”

(Non-Proprietary)

September 2014

**ENCLOSURE 19**

APR1400-E-P-EC-14005-P  
“PRA and ER/SAMDA”

(Proprietary)

September 2014

**ENCLOSURE 20**

APR1400-E-P-EC-14005-NP  
“PRA and ER/SAMDA”

(Non-Proprietary)

September 2014