



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

March 8, 2024

Ryan Ryu, Deputy Director  
Korea Hydro & Nuclear Power Co.  
8100 Boone Blvd., Suite 210  
Vienna, VA 22182

SUBJECT: NUCLEAR REGULATORY COMMISSION VENDOR INSPECTION REPORT  
OF KOREA HYDRO & NUCLEAR POWER CO. 99902120/2024-201

Dear Mr. Ryu:

On February 1, 2024, the U.S. Nuclear Regulatory Commission (NRC) staff conducted an inspection at the of Korea Hydro & Nuclear Power Co.'s (hereafter referred to as KHNP) facility in Vienna, VA. The purpose of this limited-scope routine inspection was to assess KHNP's compliance with selected portions of Title 10 of the *Code of Federal Regulations* (10 CFR) 73.21, "Physical Protection of Plants and Materials" and Commission Order EA-13-033, "Order Imposing Safeguards Information Protection Requirements for Access to Safeguards Information." Specifically, this inspection evaluated KHNP's implementation of activities associated with the protection of Safeguards Information (SGI) associated with the APR1400 design certification. The enclosed report presents the results of the inspection. This NRC inspection report does not constitute NRC endorsement of KHNPS's overall SGI protection program.

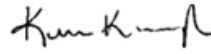
During this inspection, the NRC inspection team observed the physical protections and programmatic processes utilized by KHNP to protect safeguards information. Based on the results of this inspection, the NRC inspection team found the implementation of your SGI protection program met the requirements imposed on you by the NRC. No findings of significance were identified.

In accordance with 10 CFR 2.390, "Public inspections, exemptions, requests for withholding," of the NRC's "Rule of Practice," a copy of this letter, its enclosure(s), and your response will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible at <http://www.nrc.gov/reading-rm/adams.html>.

R. Ryu

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Sincerely,



Signed by Kavanagh, Kerri  
on 03/08/24

Kerri Kavanagh, Chief  
Quality Assurance Vendor Inspection Branch  
Division of Reactor Oversight  
Office of Nuclear Reactor Regulation

Docket No.: 99902120

EPID No.: I-2024-201-0001

Enclosure: Inspection Report No.  
99902120/2024-201 and Attachment

SUBJECT: NUCLEAR REGULATORY COMMISSION VENDOR INSPECTION REPORT  
OF KOREA HYDRO & NUCLEAR POWER CO. 99902120/2024-201  
DATE: March 8, 2024

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NRR-106

<b>OFFICE</b>	NRR/DRO/IQVB	NRR/DRO/IQVB	NRR/DRO/IRAB
<b>NAME</b>	DZhang	KKavanagh	BHughes
<b>DATE</b>	3/7/2024	3/8/2024	3/7/2024

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**U.S. NUCLEAR REGULATORY COMMISSION  
OFFICE OF NUCLEAR REACTOR REGULATION  
DIVISION OF REACTOR OVERSIGHT  
VENDOR INSPECTION REPORT**

Docket No.: 99902120

Report No.: 99902120/2024-201

Vendor: Korea Hydro & Nuclear Power Co.  
Ryan Ryu, Deputy Director  
ryanryu.pe@gmail.com

Nuclear Industry Activity: Nuclear Industry Activity: KHNP's facility in Vienna, Virginia is a management and marketing facility for KHNP licensing and marketing activities associated with the APR1400 power plant design in the US. They oversee KHNP's interface with the USNRC and with potential customers for the APR1400 in the US. They also maintain the necessary records for licensing and marketing activities, and previously served to oversee subcontractor efforts in support of licensing and design in the US during those phases of the APR1400 design's lifecycle.

Inspection Dates: February 1, 2024

Vendor Location: 8100 Boone Blvd., Suite 210  
Vienna, VA 22182

Inspection Team Leader: Deanna Zhang      NRR/DRO/IQVB

Approved by: Kerri Kavanagh, Chief  
Quality Assurance and Vendor Inspection  
Branch Division of Reactor Oversight  
Office of Nuclear Reactor Regulation

Enclosure

## **EXECUTIVE SUMMARY**

Korea Hydro & Nuclear Co.  
99902120/2024-201

The U.S. Nuclear Regulatory Commission (NRC) staff conducted a vendor inspection at the Korea Hydro & Nuclear Co. (hereafter referred to as KHNP) facility in Vienna, VA to verify that it had implemented an adequate Safeguards Information (SGI) protection program that complies with selected portions of Title 10 of the *Code of Federal Regulations* (10 CFR) 73, "Physical Protection of Plants and Materials." This inspection specifically evaluated KHNP's implementation of SGI protection activities associated with maintaining the physical security of the information by access control and the intellectual security by screening the users of the SGI prior to granting access to it. The NRC inspection team conducted this inspection onsite on February 1, 2024.

The following regulations serve as the bases for the NRC inspection:

- 10 CFR 73.21, "Protection of Safeguards Information: Performance Requirements"
- 10 CFR 73.22, "Protection of Safeguards Information: Specific Requirements"
- Commission Order EA-13-033, "Order Imposing Safeguards Information Protection Requirements for Access to Safeguards Information"

During this inspection, the NRC inspection team implemented inspection procedure (IP) 81811, "Protection of Safeguards Information By Design Certification Applicants and Vendors," dated April 8, 2020.

In accordance with the IP, the NRC inspection team conducted the following activities:

- Observed the physical security measures KHNP has in place to control access to the SGI;
- Reviewed records for retention, distribution, and destruction of SGI;
- Reviewed KHNP procedures for governing the handling of SGI and granting access to individual and subcontractor firm;
- Conducted interviews with KHNP staff to assess knowledge of processes and procedures;
- Reviewed personnel records for screening of users to assess the decisions to grant access to individuals; and
- Reviewed corrective actions implemented to address minor issues identified in NRC's inspection report 052000046/2019-201 dated August 23, 2019.

The NRC inspection team concluded that KHNP's SGI protection policies and implementing procedures comply with the applicable requirements of 10 CFR Part 73 and the Commission's Order and that KHNP's personnel are implementing these policies and procedures effectively. No findings of significance were identified.

## REPORT DETAILS

### 1. Information Protection System

#### a. Inspection Scope

The NRC inspection team reviewed KHNP's policies and implementing procedures that govern the information protection system to ensure it conforms to the applicable measures specified in Title 10 the *Code of Federal Regulations* (10 CFR) 73.22, "Protection of Safeguards Information: Specific requirements," and the subsequently published Commission Order, EA-13-033, "Order Imposing Safeguards Information Protection Requirements for Access to Safeguards Information."

The NRC inspection team discussed the program with KHNP's management and staff. The attachment to this inspection report lists the KHNP documents reviewed, and the KHNP staff interviewed by the NRC inspection team.

#### b. Observations and Findings

No findings of significance were identified.

#### c. Conclusion

The NRC inspection team concluded that KHNP established its Information Protection System in accordance with the regulatory requirements of 10 CFR 73.22. Based on the limited sample of observations, the NRC inspection team also determined that KHNP is effectively implementing its policies and procedures associated with the Information Protection System. No findings of significance were identified.

### 2. Access to SGI

#### a. Inspection Scope

The NRC inspection team reviewed KHNP's policies and implementing procedures that govern the access to SGI program to verify compliance with the requirements of 10 CFR 73.22(b). The NRC inspection team verified that KHNP's program conforms to the following:

- Personnel must have a need-to-know
- Personnel must have favorably completed a criminal history records review
- Personnel are deemed 'trustworthy', based on a Commission approved review method
- Personnel meet the exception requirements of 10 CFR 73.59

The NRC inspection team discussed the program with KHNP's management and staff. The attachment to this inspection report lists the KHNP documents reviewed, and the KHNP staff interviewed by the NRC inspection team.

#### b. Observations and Findings

No findings of significance were identified.

### c. Conclusion

The NRC inspection team concluded that KHNP established its access to SGI system in accordance with the with the regulatory requirements of 10 CFR 73.22(b). Based on the limited sample of information reviewed, the NRC inspection team also determined that KHNP is effectively implementing its policies and procedures associated with access to SGI. No findings of significance were identified.

## 3. Protection of SGI

### a. Inspection Scope

The NRC inspection team reviewed KHNP's policies and implementing procedures that govern the protection of SGI to verify compliance with the requirements of 10 CFR 73.22(c)(1) and 10 CFR 73.22(c)(2). The NRC inspection team observed the storage area, cabinet, locks, and work area where SGI is utilized to confirm that these items met the requirements of these regulations.

The NRC inspection team discussed the program with KHNP's management and staff. The attachment to this inspection report lists the KHNP documents reviewed, and the KHNP staff interviewed by the NRC inspection team.

### b. Observation and Findings

No findings of significance were identified.

### c. Conclusion

The NRC inspection team concluded that KHNP established its protection of SGI system in accordance with the regulatory requirements of 10 CFR 73.22(c)(1) and 10 CFR 73.22(c)(2). Based on its observations, the NRC inspection team determined that KHNP is effectively implementing its policies and procedures associated with its protection of SGI. No findings of significance were identified.

## 4. Processing, Reproducing, and Transmitting SGI

### a. Inspection Scope

The NRC inspection team reviewed KHNP's policies and implementing procedures that govern the processing, reproducing and transmitting of SGI to verify compliance with the requirements of 10 CFR 73.22(g)(1), 10 CFR 73.22(g)(2), 10 CFR 73.22(e), and 10 CFR 73.22(f)(1). Specifically, the NRC inspection team reviewed KHNP's procedures and processes for handling, packaging and receipt, process for sending and receiving, and for reproduction against the requirements in these regulations and the Order. The NRC inspection team also reviewed the corrective actions implemented to address the minor issues identified in the NRC's inspection report No. 052000046/2019-201 dated August 23, 2019, associated with (1) confirming that that contractors had appropriately destroyed SGI documents prior to removing the contractors from KHNP SGI procedures, and (2) documenting audits of two sub-contractor facilities and confirm, and confirmed that the corrective actions have been adequately implemented.

b. Observation and Findings

No findings of significance were identified.

c. Conclusion

The NRC inspection team concluded that KHNP established its protection of SGI system in accordance with the regulatory requirements of 10 CFR 73.22(g)(1), 10 CFR 73.22(g)(2), 10 CFR 73.22(e), and 10 CFR 73.22(f)(1). Based on its observations, the NRC inspection team determined that KHNP is effectively implementing its policies and procedures associated with the processing, reproducing and transmitting of SGI. No findings of significance were identified.

5. Marking of SGI

a. Inspection Scope

The NRC inspection team reviewed KHNP's policies and implementing procedures that govern the marking of SGI to verify compliance with the requirements of 10 CFR 73.22(d)(1), and 10 CFR 73.22(d)(2). Specifically, the NRC inspection team sampled SGI KHNP documents and verified that these documents and transmittal cover letters are properly marked in accordance with regulatory requirements.

The NRC inspection team discussed the program with KHNP's management and staff. The attachment to this inspection report lists the KHNP documents reviewed, and the KHNP staff interviewed by the NRC inspection team.

b. Observation and Findings

No findings of significance were identified.

c. Conclusion

The NRC inspection team concluded that KHNP established its protection of SGI system in accordance with the regulatory requirements of 10 CFR 73.22(d)(1), and 10 CFR 73.22(d)(2). Based on its observations, the NRC inspection team determined that KHNP is effectively implementing its policies and procedures associated with marking of SGI. No findings of significance were identified.

6. Removal of SGI and Destruction

a. Inspection Scope

The NRC inspection team reviewed KHNP's policies and implementing procedures that govern the removal and destruction of SGI for KHNP to verify compliance with the requirements of 10 CFR 73.22(h) and 10 CFR 73.22(i). Specifically, the NRC inspection team confirmed that KHNP policies and implementing procedures include reviews of SGI documents to determine whether the documents continue to meet SGI classification criteria and provide for the removal and destruction of SGI documents.



The NRC inspection team discussed the program with KHNP's management and staff. The attachment to this inspection report lists the KHNP documents reviewed, and the KHNP staff interviewed by the NRC inspection team.

b. Observation and Findings

No findings of significance were identified.

c. Conclusion

The NRC inspection team concluded that KHNP established its protection of SGI system in accordance with the regulatory requirements of 10 CFR 73.22(h) and 10 CFR 73.22(i). Based on its observations, the NRC inspection team determined that KHNP is effectively implementing its policies and procedures associated with the removal and destruction of SGI. No findings of significance were identified.

7. Entrance and Exit

On February 1, 2024, the NRC inspection team presented the inspection scope during an entrance meeting with Ryan Ryu, Deputy Director, and other members of KHNP's staff. On February 1, the NRC inspection team presented the inspection results with Ryan Ryu and other members of KHNP's staff. The attachment to this report lists the attendees of the entrance and exit meetings, as well as those individuals whom the NRC inspection team interviewed.

**ATTACHMENT**

1. ENTRANCE/EXIT MEETING ATTENDEES

<b>Name</b>	<b>Position</b>	<b>Affiliation</b>	<b>Entrance</b>	<b>Exit</b>	<b>Interviewed</b>
Ryan Ryu	Deputy Director	KHNP	X	X	X
Oh-su Ahn	Manager	KHNP	X	X	X
Robert Sweeney	KHNP Contractor	AECOM	X	X	X
Deanna Zhang	Inspector	NRC	X	X	

2. INSPECTION PROCEDURES USED

Inspection Procedure (IP) 81811, "Protection of Safeguards Information by Design Certification Applicants and Vendors," dated April 8, 2020.

3. LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

<b>Item Number</b>	<b>Status</b>	<b>Type</b>	<b>Description</b>
None			

4. DOCUMENTS REVIEWED

- Korea Hydro & Nuclear Power Co, LTD (KHNP), "DC-DG-03-19, Protection of Safeguards Information (SGI), Revision 3, dated July 2019
- KHNP DC-DG-03-20, Safeguards Information (SGI) Access Authorization, Revision 3, dated July 2019
- 2024 KHNP Inventory Audit, January 16, 2024
- Safeguards log entries
- CAP #01306136
- CAP #01306153
- SGI Access Authorization Qualification Record for Sung-yoon (Ryan) Ryu
- SGI Access Authorization Qualification Record for Oh-su Ahn
- SGI Access Authorization Qualification Record for Jy-yong Oh
- SGI Access Authorization Qualification Record for Kap-soon Kim