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LTR-NRC-22-5

January 24, 2022

Subject: Transmittal of Presentation Slides to Support NRC Meeting on the Classification and Tracking of Cobalt-60 Byproduct Material (Proprietary/Non-Proprietary)

Enclosed are proprietary and non-proprietary versions of slides to support a meeting with the NRC on January 27, 2022, to discuss the classification and tracking of byproduct material as it pertains to the Westinghouse Cobalt-60 production program.

This submittal contains proprietary information of Westinghouse Electric Company LLC ("Westinghouse"). In conformance with the requirements of 10 CFR Section 2.390, as amended, of the Nuclear Regulatory Commission's ("Commission's") regulations, we have enclosed with this submittal an Affidavit. The Affidavit sets forth the basis on which the information identified as proprietary may be withheld from public disclosure by the Commission.

Correspondence with respect to the proprietary aspects of this submittal or the Westinghouse Affidavit should reference AW-22-006 and should be addressed to Anthony J. Schoedel, Manager, eVinci Licensing & Configuration Management, Westinghouse Electric Company, 1000 Westinghouse Drive, Building 1, Cranberry Township, PA 16066.

Anthony J. Schoedel

Anthony J. Schoedel, Manager
eVinci Licensing & Configuration Management

cc: Ekaterina Lenning
Dennis Morey

Enclosures:
(1) Affidavit, AW-22-006
(2) Slides to Support NRC Meeting on the Classification and Tracking of Cobalt-60 Byproduct Material (Proprietary)
(3) Slides to Support NRC Meeting on the Classification and Tracking of Cobalt-60 Byproduct Material (Non-Proprietary)

Commonwealth of Pennsylvania:
County of Butler:

(1) I, Anthony Schoedel, Manager, eVinci Licensing & Configuration Management, have been specifically delegated and authorized to apply for withholding and execute this Affidavit on behalf of Westinghouse Electric Company LLC (Westinghouse).

(2) I am requesting the proprietary portions of LTR-NRC-22-5, Revision 0, Enclosure 2 be withheld from public disclosure under 10 CFR 2.390.

(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 10 CFR 2.390, 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 and is not customarily disclosed to the public.

(ii) The information sought to be withheld is being transmitted to the Commission in confidence and, to Westinghouse's knowledge, is not available in public sources.

(iii) Westinghouse notes that a showing of substantial harm is no longer an applicable criterion for analyzing whether a document should be withheld from public disclosure. Nevertheless, 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.

(5) Westinghouse has policies in place to identify proprietary information. 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.

(6) The attached documents are bracketed and marked to indicate the bases for withholding. The justification for withholding 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 (5)(a) through (f) of this Affidavit.

I declare that the averments of fact set forth in this Affidavit are true and correct to the best of my knowledge, information, and belief. I declare under penalty of perjury that the foregoing is true and correct.

Executed on: 1/24/2022

Anthony J. Schoedel

Signed electronically by
Anthony Schoedel

Enclosure 3

Slides to Support NRC Meeting on the Classification and Tracking of Cobalt-60 Byproduct Material

(Non-Proprietary)

January 2022

Westinghouse Electric Company
1000 Westinghouse Drive
Cranberry Township, PA 16066

Classification and Tracking of Cobalt-60 Byproduct Material

NRC Meeting

January 27, 2022

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Westinghouse **VISION & VALUES**

- Customer Focus & Innovation
- Speed & Passion to Win
- Teamwork & Accountability

Safety • Quality • Integrity • Trust

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Agenda

- Objective
- Background of Cobalt-60 Production
- Assessment of Regulations
- Westinghouse Approach for Tracking and Reporting
- Summary and Conclusions

Objective

- Dialogue with NRC Staff regarding classification and tracking of the irradiated Cobalt-60 capsules that will be transferred to the Nordion facility.
- Westinghouse met with NRC on May 20, 2021 and received feedback on tracking and classification.
- This meeting is to explain how Westinghouse is addressing that feedback. Our plan has been adjusted to meet the tracking and reporting requirements of 10 CFR 20.2207 for capsules containing Cobalt-60 byproduct material.

Background of Cobalt-60 Program

- Westinghouse and Nordion (Canada) are developing an innovative isotope production technology, and with our partner utilities, plan to produce Cobalt-60 in Pressurized Water Reactors (PWRs).
- Nickel-plated slugs of Cobalt-59 target material will be provided to WEC by Nordion.
- Target material will be sealed in **[ ]**[a,c] capsules and the capsules loaded into **[ ]**[a,c] at the WEC Columbia Fuel Fabrication Facility.
- **[ ]**[a,c] are inserted into Westinghouse fuel assemblies, shipped to the plant site and loaded into the reactor core as fuel assembly components to be irradiated for multiple fuel cycles, producing Cobalt-60.
- After removal from the core, the activated capsules are harvested (removed from the **[ ]**[a,c]), loaded into a Nordion-supplied transportation cask, and transferred to Nordion's Canada facility.
- At Nordion, the Cobalt-60 slugs are removed from the capsules and packaged as sealed sources according to activity levels appropriate for supply to Nordion's customers for use in sterilization and medical use applications.

Background – [ ]a,c

a,c

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Assessment of Regulations

- Sealed sources, as defined in 10 CFR Part 30, used in the U.S. must be registered in the National Sealed Source and Device Registry.
- Per the definitions and activities specified in Part 30, the Cobalt-60 capsules do not qualify as sealed sources under Part 30 and thus registration in the National Sealed Source and Device Registry is not required.
- However, after further evaluation of NRC feedback, the Cobalt-60 byproduct material generated at a licensee's facility is radioactive material sealed in a capsule and thus qualifies as a Nationally Tracked Source per 10 CFR Part 20.
- As such, our plan is to track the transfer of these sources and report such transfers of byproduct material in accordance with the National Source Tracking System (NSTS).

Westinghouse Approach for Tracking and Reporting

Based on feedback received from the NRC, Westinghouse proposes to implement the following process for Cobalt-60 production, including marking, tracking, and recording of capsule history and activity, to meet the tracking requirements of 10 CFR 20.2207.

1. Each capsules is [ ]a,c Nickel-plated Cobalt-59 slugs are inserted into each capsule prior to the final seal welding.
2. Each capsule will be marked [ ]a,c
3. The capsules containing Cobalt-59 target material are [ ]a,c

Westinghouse Approach for Tracking and Reporting

4. At the plant site, the fuel assemblies with [ ]a,c are loaded into the core at predetermined locations. Each [ ]a,c is expected to reside in the core for multiple cycles in order to achieve the necessary level of activation, i.e., the amount of Cobalt-60 produced.
5. Upon achieving the required activation, the [ ]a,c are removed from their host fuel assemblies and moved to the harvesting area, typically the cask loading pit.
6. During harvesting, [

]a,c Detailed documentation is maintained for each capsule, [

]a,c Thus, each capsule is documented with respect to [

]a,c

Westinghouse Approach for Tracking and Reporting

7. The documentation for all capsules in each shipment is reported in the NSTS prior to shipment.
8. Upon receipt of the transport flask at Nordion, the activity level of each capsule is confirmed. Receipt of the Cobalt-60 capsules is then reported to the NSTS.
9. The slugs are then removed from the capsules and used in the manufacture of sealed sources to be supplied to Nordion's customers.

Summary and Conclusions

- Westinghouse and Nordion plan to produce Cobalt-60 in Westinghouse PWR reactors.
- Capsules containing Cobalt-60 byproduct material produced at a licensee plant and transferred to Nordion's facility are Nationally Tracked Sources.
- Each of the byproduct source capsules [ ]^{a,c}
- Transfer and tracking of the capsules containing Cobalt-60 byproduct material will meet the reporting requirements of the NSTS, 10 CFR 20.2207.

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