

April 18, 2016

NOTE TO: File

FROM: Christopher Ryder, Project Manager **/RAI/**
Fuel Manufacturing Branch
Division of Fuel Cycle Safety, Safeguards
and Environmental Review
Office of Nuclear Material Safety
and Safeguards

SUBJECT: CONFERENCE CALL ON MARCH 22, 2016: EXPECTATIONS OF
WESTINGHOUSE IN RESPONSE TO REQUESTS FOR ADDITIONAL
INFORMATION REGARDING THE DECOMMISSIONING FUNDING PLAN
DATED JUNE 5, 2015

On June 5, 2015, as required by Title 10 of the *Code of Federal Regulations* (10 CFR) 70.25(e)(2)ⁱ, Westinghouse Electric Company (Westinghouse) submitted their triennial update to the decommissioning funding plan (DFP). By letter dated November 17, 2015 (Ref. 2), the staff at the U.S. Nuclear Regulatory Commission (NRC) requested additional information (RAI). On March 22, 2016, the NRC staff held a conference call with staff at the Westinghouse Columbia Fuel Fabrication Facility (CFFF) to discuss their submittal.

The following people participated in the conference call:

<u>NRC</u>	<u>Westinghouse</u>
Robert Johnson ^(a)	Nancy Parr ^(e)
Christopher McKenney ^(b)	Camille Zozula ^(f)
Christopher Ryder ^(c)	
Kenneth Kline ^(d)	

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- a. Chief, Fuel Cycle Safety and Environmental Review, Fuel Manufacturing Branch
 - b. Chief, Division of Decommissioning, Uranium Recovery, & Waste Programs (DUWP), Performance Assessment Branch (PAB)
 - c. Licensing Project Manager
 - d. Technical Reviewer, DUWP/PAB
 - e. Licensing Manager
 - f. Westinghouse Regulatory Affairs

BACKGROUND

The purpose of the conference call was to discuss the expectations of the NRC staff to complete the response to an RAI regarding the disposition of special nuclear material (SNM). The subject conference call follows several such calls (Refs. 3 and 4) as the NRC staff

ⁱ 10 CFR 70.25(e)(2) Each decommissioning funding plan must be submitted for review and approval at the time of license renewal and at intervals not to exceed 3 years, the decommissioning funding plan must be resubmitted with adjustments as necessary to account for changes in costs and the extent of contamination.

conveyed their expectations in implementing a rule that became effective in December 2012, after the previous DFP was submitted.

The NRC staff did not give suggestions, advice, consultation, or recommendations. Participants were informed that a summary of the conference call would be prepared and docketed. Other NRC licensing project managers (PMs) listened to the discussion because of industry interest in the subject; these PMs were advised that proprietary information may be discussed, and therefore the PMs were cautioned not to share the information with their respective licensees. Footnotes of this note to file are additional thoughts from Christopher Ryder that were not discussed during the conference call.

DISCUSSION

10 CFR 70.25(e)(1)(ii) requires key assumptions contained in the decommissioning cost estimate (DCE) be identified and justified. For the majority of materials licensees, operations continue until SNM has been removed, at which time decommissioning begins. An assumption for decommissioning is that decommissioning has occurred earlier than planned for various reasons, such as changes in technology, less demand for product, or business decisions by the parent company. A decommissioning plan is necessary to ensure that sufficient funding exists, including a basis for the various costs. With an adequate basis, such as legal title held by another entity or existing contracts which preclude the licensee from incurring such costs, consideration may be given to exclude such costs from the DCE. Otherwise, the costs must be included in the DCE. A DFP is based on typical operating conditionsⁱⁱ, assuming “average” facility conditions including inventory.

Disposition of Special Nuclear Material

Westinghouse stated that the disposition of SNM will depend on their circumstances at the time of decommissioning. SNM may be sent to their foreign subsidiaries or domestic licensees. The NRC staff stated that the DFP does not need to account for all possibilities. The NRC staff expects a plan in place for the disposition of the SNM. Most licensees never use decommissioning funds for decommissioning. Most licensees have transitioned from operations to decommissioning without incident.

Three categories of SNM that need to be addressed include customer-owned uranium hexafluoride (UF₆) cylinders, SNM in processing, and Westinghouse-owned UF₆ cylinders:

- Customer-Owned UF₆ Cylinders

Westinghouse had provided a preliminary response to the question of inventory disposition, which included an example of contract language. Westinghouse stated that they have many contracts; providing example language from each contract is unnecessarily burdensome. The NRC staff agreed, stating that the example contract language likely would meet their expectations.

ⁱⁱ The DFP should not be based on a best-case scenario in which all inventory is removed offsite prior to decommissioning. Neither should it be based on a worst-case scenario, such as a natural disaster or severe accident.

The NRC staff asked Westinghouse to consider keeping the discussion of their response to the inventory disposition in terms of “title of the SNM”, without mentioning value. A statement is needed on whether Westinghouse or the customer will pay the cost of loading and shipping UF₆ cylinders; if Westinghouse is to pay such costs, the costs need to be in the DCE; if the customer is to pay such costs, then such costs can be excluded from the DCE. Consideration needs to be given to the recourse of Westinghouse should a customer refuse to cover such costs. Ensure that UF₆ cylinders will be removed in a timely manner, accounting for the cost of securing the SNM until such time as the SNM is removed.

- SNM in Processing

The NRC staff asked Westinghouse to consider discussing the amount of time to process SNM from vaporization to finished fuel assemblies. Intuitively, at least some SNM, in the form of powder and pellets, will be “leftover” after the final fuel assembly is made; account for the disposition of this leftover SNM.

The NRC staff asked Westinghouse to consider discussing the funds that will be used to complete the processing. Assurance is needed that sufficient funds are available to complete the processing. Discuss the retention of Westinghouse employees to complete the processing as operations come to a close.

Westinghouse stated that considering the in-process SNM has not been done in previous DFPs. The NRC staff replied that this may have been an oversight of previous reviews. The expectation for this DFP submittal is that in-process SNM must be taken into account.

Westinghouse stated that they have several funds set aside within the company to complete the processing. Funds are not necessarily coming from operations.

- Westinghouse-Owned UF₆ Cylinders

The NRC staff asked Westinghouse to explain how corporate-owned cylinders can be moved off-site to another Westinghouse facility, such as the one in Sweden. In this way, an end-disposition of the SNM is assured. If Westinghouse-Sweden will cover the cost of packaging, loading, and transportation, then the costs can be excluded from the DFP. Westinghouse hesitated in that they do not have a legally-binding document with Westinghouse-Sweden. The NRC staff said that they do not need a legal document; something as simple as an e-mail from Westinghouse-Sweden or a statement from the corporate office of Westinghouse would suffice to document that Westinghouse-Sweden is responsible for these costs.

Westinghouse stated that a “security of supply” report is revised annually to assess business risks and mitigate them to an acceptable level. The analysis accounts for factors such as natural phenomena, changes in supply and demand, and changes in human resources. The NRC staff stated that they do not need the details of the plan, but only key elements and attributes to give assurance of an end-destination and the reasons for excluding costs from the DFP.

Westinghouse has an export license in place to send SNM to Westinghouse-Sweden. The NRC staff wanted assurance that the SNM license will remain in effect after the DFP is approvedⁱⁱⁱ. Discuss the financial independence of Westinghouse-Sweden from Westinghouse-Columbia. Discuss how Westinghouse-Sweden will take title to the SNM, and how the SNM will be loaded and shipped in a timely manner.

Sudden Shutdown Assumption

Westinghouse had concerns about the NRC staff wanting the DFP to account for a sudden shutdown of the CFFF. This is a worst case scenario that is inconsistent with Appendix A of NRC guidance (Ref. 5) where the state of the facility, as discussed in the DFP, is taken to be routine or typical operations. From the perspective of Westinghouse, the DFP is written in accordance with NRC guidance.

The NRC staff acknowledged the confusion over the concept of a “sudden shutdown.” The NRC staff wants assurance of a plan being in place prior to decommissioning; that a plan is not developed suddenly when decommissioning commences as has happened with several other licensees. The NRC staff reiterated that a DFP is based on typical operating conditions, assuming “average” facility conditions including inventory.

25 Percent Contingency Factor

Westinghouse stated that the costs associated with decommissioning are required to have a 25 percent contingency factor and questioned why this contingency was not adequate to address the RAI question. The NRC staff clarified that the purpose of the 25 percent contingency is to ensure sufficient funds by accounting for unknown aspects of decommissioning, such as the extent of subsurface soil contamination and inflation. The contingency factor is not used to account for foreseeable, though uncertain, aspects of decommissioning.

CLOSING REMARKS

The NRC staff stated that discussions should be in terms of “title of the SNM,” not the value of the SNM. The NRC staff must be assured a plan is in place to accomplish decommissioning. The details of the plan are unnecessary, but, nonetheless, enough information is needed to convince the NRC staff that a plan exists. An end-destination must be specified.

References

1. Letter from N. Parr, “Westinghouse Columbia Fuel Fabrication Facility Decommissioning Funding Plan” June 5, 2015. Agencywide Documents and Access Management System (ADAMS) accession number ML15156B312.
2. Letter to N. Parr, Westinghouse Electric Company LLC, “Request For Additional Information: Triennial Update Of The Decommissioning Funding Plan (Technical Assignment Control Number L33376)”, November 17, 2015. ADAMS accession number ML15264B004.

ⁱⁱⁱ Given that an export license is mentioned in the response to the RAI, the export license must remain in place.

3. Note from C. Ryder, U.S. Nuclear Regulatory Commission Summary of Conference Call — Westinghouse Triennial Update Of The Decommissioning Funding Plan”, January 8, 2016. ADAMS accession number ML16011A206.
4. Note from C. Ryder, U.S. Nuclear Regulatory Commission, “Conference Call: Westinghouse Triennial Update Of The Decommissioning Funding Plan - Expectations of Response to Request for Additional Information”. February 12, 2016. ADAMS accession number ML16043A481.
5. U.S. NRC, “Consolidated Decommissioning Guidance: Financial Assurance, Recordkeeping, and Timeliness, Final Report” NUREG-1757, Vol. 3, Rev. 1, February 2012. ADAMS accession number ML12048A683.