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Your ref:

Our ref: LTR-RAC-22-12

February 21, 2022

SUBJECT: Response to NRC Request for Additional Information associated with the SNM-1107
License Renewal Environmental Impact Statement
(License No. SNM-1107, Docket No. 70-115, EPID L-2017-RNW-0016)

REFERENCE: 1) LTR-RAC-21-57, "Westinghouse Revised SNM-1107 License Renewal Application,"
(September 2021) (ML21263A217)
2) NRC Letter to Westinghouse, "Request for Additional Information – Renewal of Special
Nuclear Materials License SNM-1107" (February 2022) (ML22033A070)
3) NRC Letter to Westinghouse, "Revised Schedule for Renewal Review of Material
License SNM-1107," (November 2021) (ML21306A364)

Westinghouse Electric Company LLC ("Westinghouse"), the applicant for license renewal for the Columbia Fuel Fabrication Facility ("CFFF"), in Reference (1), reviewed the Request for Additional Information (RAI) provided in Reference (2). The NRC indicated RAIs 10 and 11 are associated with the Environmental Impact Statement (EIS). Westinghouse did not want to impact the schedule to publish the Final EIS as stated in Reference (3) and has enclosed responses to RAIs 10 and 11 with the remainder to be sent at a later date.

Please contact me at 803-647-1957 should you have questions or need any additional information.

Patrick Donnelly

Patrick Donnelly
Acting Regulatory Affairs Manager
Westinghouse Columbia Fuel Fabrication Facility
Docket 70-1151 License SNM-1107

Enclosure 1: Westinghouse Columbia Response to RAIs (4 pages)

cc:

Mr. Thomas Vukovinsky
Ms. Jennifer Tobin

Enclosure 1

Westinghouse Response to NRC Request for Additional Information

RAI-10 Waste from the fabrication of tritium-producing burnable absorber rods (TPBARs)**A. Provide the quantity of waste that is produced during TPBAR production.**

Westinghouse Response:

A small amount of solvent (acetone) rags and zirconium alloy metal shavings are generated by authorized Columbia Fuel Fabrication Facility (CFFF) employees who work in the TPBAR area. The TPBAR area is located in the mechanical area of the plant, and these wastes are common to other mechanical area production activities not associated with TPBAR. In TPBAR, acetone rags are accumulated throughout the work shift in designated metal step cans. At the end of each shift, the acetone rags are carried to the mechanical area's centralized accumulation area for hazardous wastes (90-day storage). Zirconium alloy metal shavings are submerged under water in a Satellite Accumulation Area drum and are sent to a 90-day storage area once full. The mechanical area of the plant generates 4-6 drums of waste solvent rags per year, of which CFFF production activities in TPBAR is a fraction. As TPBAR generates no more than 5 solvent rags per business day, less than one drum of rags is generated by the TPBAR area annually. Additionally, TPBAR generates less than 1 gallon of zirconium fines annually. Both the zirconium fines and the acetone rags are considered hazardous waste and are stored and disposed of as described in Part C below.

B. Describe and explain how TPBAR waste is classified (e.g., low level waste, nonhazardous, other).

Westinghouse Response:

No radioactive material is present in the TPBAR area, and therefore, there is no low-level radioactive waste generated. The small amount of hazardous waste is described and explained in Part A. Also, there are no liquid or gaseous effluents from the TPBAR area.

C. Describe the TPBAR waste disposal process and disposal capacity during the proposed license renewal term.

Westinghouse Response:

The CFFF is a large-quantity generator of hazardous wastes, regulated under 40 CFR Part 261, "Identification and Listing of Hazardous Waste;" 40 CFR Part 262, "Standards Applicable to Generators of Hazardous Waste;" and South Carolina Hazardous Waste Regulations R61-79.261. Hazardous wastes are stored onsite in accordance with these regulations until shipped for disposal to an authorized Treatment, Storage, and Disposal Facility (TSDF) through permitted contractors. There are no changes expected to the TPBAR waste disposal capacity during the proposed license renewal term.

RAI-11 Historic and Cultural Resources

A.1. Discuss whether the WEC's cultural resource management procedures (e.g., RA432 and associated map) will be updated considering the findings and management recommendations in the draft cultural resources survey report (e.g., recommended actions in response to "future ground disturbing activities in the developed areas inside the security fence that will extend more than four feet below the present ground surface") as well as areas determined to have high potential in the draft survey report that are currently identified as disturbed areas in RA-432 map. If so, describe the updates.

Westinghouse Response:

Westinghouse will update its cultural resource management procedure (i.e., RA-432 and associated map) to incorporate the findings and management recommendations in the final report approved by the State Historic Preservation Office (SHPO).

Based on the draft report, the updates include the addition of a definition for a "developed" area and modification to the term "disturbed" area. The updates also incorporate the management recommendations from Section 5.2 of the report. These include new requirements for (1) the developed, undisturbed area inside the Controlled Access Area (CAA) fence and for (2) the sandy levee ridges in the Congaree River flood plan outside the CAA fence. The associated map for RA-432 has also been updated to define these two areas.

Additionally, the management recommendations in Appendix D of the report will be completed including movement of the eastern edge (entrance) to the Denley Cemetery fence out 5-10 feet and continued management and protection of the cemetery as it has since 2007. Updates to WEC's cultural resource procedure include requirements to manage and protect the cemetery from desecration and offer descendants the opportunity to coordinate site visits in accordance with Section 27-43-310 of South Carolina State Law.

A.2. If the updated procedures are available, please provide these.

Westinghouse Response:

Updates to the procedures have been drafted as described above. The procedure updates will be issued upon acceptance of the final report by the SHPO.

B. The draft cultural resources survey report identified areas of low and high potential. New archaeological resources were identified in the high potential areas. The draft report also suggested that there is a high potential for cultural resources to exist below 4 feet in the developed areas of CFFF. The report does not provide a definition of the term developed but does provide a map depicting the developed area within the CFFF site (~68 acres). Clarify the distinction/definition of the terminology (i.e., disturbed) being used in RA-432 and the draft cultural resources survey report (i.e., developed) and explain any differences.

Westinghouse Response:

In the context of the draft cultural resources survey report, a developed area is an area that has had some alteration to the surface or subsurface soils. Developed areas can be classified as “disturbed” or “undisturbed.”

Developed and disturbed areas are those that have had significant alteration to the surface or subsurface soils because of clearing, grading, excavation, etc. Most of the area inside the CAA is considered developed and disturbed from past agricultural activities, construction of the CFFF buildings and processes and installation of underground utilities. The result of these activities is that much of the original soils have been degraded, removed or relocated such that there is a low probability of any cultural resources remaining.

Developed and undisturbed areas are those with only minor disturbances such as hardscaping, e.g., addition of simple buildings, paving, telephone poles, etc. There is a higher potential for cultural resources to be found in developed and undisturbed areas. There is one area inside the CAA along the southern fencing containing the Butler Building and Tractor Shed that was not actively farmed by the previous landowners, nor were there extensive changes to this area during construction of the CFFF. Although there are underground utilities and piping in parts of this area, it is the least disturbed area within the CAA and could have potential for cultural resources. Therefore, a review of this area shall occur before any land disturbance activities to determine if testing or monitoring of excavations is needed to ensure that no potential National Historic Preservation Act (NRHP) eligible sites are affected. Westinghouse will revise its cultural resource procedure to add this requirement.

As discussed in the response to A.2. above, revisions to WEC’s cultural resource management procedures to explain the terminology will be issued upon SHPO approval of the survey report.