



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

September 4, 2020

Ms. Elise Malek
Licensing Manager
Westinghouse Columbia Fuel Fabrication
5801 Bluff Road
Hopkins, SC 29061-9121 USA

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION: WESTINGHOUSE ELECTRIC COMPANY, LLC, REQUEST FOR ALTERNATE DISPOSAL APPROVAL OF SPECIFIED LOW ACTIVITY RADIOACTIVE MATERIALS (ENTERPRISE PROJECT IDENTIFIER L-2020-LLL-0009)

Dear Ms. Malek:

This is in regard to your submittal dated May 8, 2020 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML20129J934), requesting an alternate disposal of specified low-activity radioactive materials from Westinghouse Electric Company, LLC Columbia Fuel Fabrication Facility (CFFF), License No. SNM-1107, for certain waste containing radioactive materials under Title 10 of the *Code of Federal Regulations* (10 CFR 20.2002). Our review of your application has identified that additional information is needed before final action can be taken.

The additional information, specified in the enclosure, should be provided within 30 days from the date of this letter.

Pending your response, we anticipate completing our review by November 15, 2020. This date could change depending on the findings of our technical review, urgent assignments, or other factors. We will promptly communicate any significant changes to this schedule.

If you have any questions regarding the license renewal review, please contact Irene Wu at 301-415-1951, or via e-mail to irene.Wu@nrc.gov.

In accordance with 10 CFR Section 2.390, "Public inspections, exemptions, requests for withholding," of the NRC's "Agency Rules of Practice and Procedure," a copy of this communication will be available electronically for public inspection in the NRC Public Document Room, or from the NRC's ADAMS. ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/readingrm/adams.html>.

Sincerely,



Irene Wu, Project Manager
Fuel Facility Licensing Branch
Division of Fuel Management
Office of Nuclear Material Safety
and Safeguards

Docket No.: 70-1151
License No.: SNM-1107

Enclosure:
Request for Additional Information
Westinghouse Electric Company
Columbia Fuel Fabrication Facility
Alternate Disposal Request under
10 CFR 20.2002

cc: N. Parr, Westinghouse
K. Taylor, SCDHEC
westinghouse_ff@listmgr.nrc.gov

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DATED: September 4, 2020

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ADAMS Accession Number: ML20230A020

via email

OFFICE	NMSS/DFM/ FFLB*	NMSS/DFM/ FFLB*	NMSS/DUWP/ RTAB*	NMSS/DFM/ FFLB*	NMSS/DFM/ FFLB*
NAME	MDiaz	SFiguroa	CMckenney	DMarcano	IWu
DATE	08/04/2020	08/17/2020	09/03/2020	09/04/2020	09/04/2020

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REQUEST FOR ADDITIONAL INFORMATION
WESTINGHOUSE ELECTRIC COMPANY COLUMBIA FUEL FABRICATION FACILITY
ALTERNATE DISPOSAL REQUEST UNDER 10 CFR 20.2002

Please provide the following information:

1. Please confirm the volumes of material being removed from the East Lagoon for disposal.

There appears to be a discrepancy with regards to the volumes of material being disposed from the East Lagoon. According to Table 4.2 of Enclosure 1 and the inputs to the Site Specific Dose Assessment for US Ecology Idaho, Inc. (USEI) (SSDA) spreadsheet, the volume of East Lagoon material being disposed is 44,776 (45,000) ft³ of soil, sludge, and debris with the potential for another 45,000 ft³ of soil from below the liner. However, the submittal describes the East Lagoon as being approximately 160 ft x 130 ft and contains approximately 3 to 4 ft of contaminated sludge. This would result in a volume of soil, sludge, and debris that ranges between 62,400 ft³ and 83,200 ft³ of potential waste above the liner (and a total volume of 124,800 ft³ to 166,400 ft³ when considering the equivalent volume of soil from below the liner).

Regulatory Basis: This information is needed to ensure accurate parameter values are considered when assessing doses associated with this proposed disposal action in accordance with 10 CFR 20.2002 and, more specifically, that an accurate description of the waste is considered in accordance with 10 CFR 20.2002(a).

2. Please clarify what actions are being performed on the East Lagoon liner and how the impacts from these actions are considered in the SSDA dose calculations.

Processes discussed in the submittal include the removal of the liner in order to evaluate and remove the underlying soil. There are no additional details regarding future actions regarding the liner once it has been removed (i.e., is it staying on site? is it being included in the material shipped to USEI?) beyond noting that the material being removed from the East Lagoon includes soil, sludge, and debris. Enclosure 4 of the submittal, which provides screenshots of the SSDA input pages, identifies the material being considered in the dose calculations to be "Soil" and not "Mix of Soil/Debris" and no analytical data or processes for assessing the potential for radioactive material being associated with the liner are included in the submittal.

Regulatory Basis: This information is needed to ensure accurate parameter values are considered when assessing doses associated with this proposed disposal action in accordance with 10 CFR 20.2002 and, more specifically, that an accurate description of the waste is considered in accordance with 10 CFR 20.2002(a).

3. Please clarify how doses to the Columbia Fuel Fabrication Facility (CFFF) workers responsible for preparing the material for shipment to USEI are evaluated or provide justification for why they are not considered in the proposed disposal action (e.g., onsite

radiation protection plan). Also, please document how doses to USEI staff performing bench scale testing of the aggregate waste onsite at CFFF were considered.

USEI's SSDA evaluates the doses to individuals associated with the transportation of material to USEI and the disposal of the material at USEI. It does not calculate the doses to USEI workers who may be involved with other activities associated with a proposed disposal request (e.g., collecting, testing, packaging, and loading the material to be shipped to USEI). Since the purpose of this submittal is to obtain approval to dispose of the material from CFFF at USEI, doses to all USEI workers associated with the disposal process need to be considered.

Regulatory Basis: This information is needed to ensure that the relevant exposure scenarios are considered when assessing doses associated with this proposed disposal action in accordance with 10 CFR 20.2002.

4. Please confirm the version of the SSDA used to perform the analyses as well as the value for the "Waste Contact Time (hr)" for the Gondola Railcar Surveyors, 0.16, used to calculate doses to USEI workers associated with the disposal of CFFF material at USEI.

While reviewing specific parameter values used to calculate doses to USEI workers disposing of CFFF material, NRC staff noted that the "Waste Contact Time (hr)" value for the Gondola Railcar Surveyors was 0.16 and not 0.33, the value included in Version 3a of the SSDA, approved May 20, 2019 (ADAMS Accession Number ML19122A340). NRC staff also noted that the SSDA worksheets used to perform these Westinghouse analyses are identified as Version 3 while the worksheets included in the version of the SSDA approved on May 20, 2019, were identified as Version 3a.

Regulatory Basis: This information is needed to ensure both the licensee and NRC staff are using consistent analytical tools and accurate parameter values to assess doses associated with the proposed disposal action in accordance with 10 CFR 20.2002 and, more specifically, that an accurate assessment of the doses to USEI workers and members of the public are calculated in accordance with 10 CFR 20.2002(d).

5. Please explain Westinghouse's plans for (i) replacing the function the east lagoon served and (ii) the area where the east lagoon is located after its removal.

Regulatory Basis: This information is being requested in accordance with 10 CFR 51.41, to support the NRC's National Environmental Policy Act review.