



NUCLEAR REGULATORY COMMISSION

[Docket No. 70-1151; NRC-2020-0263]

Westinghouse Electric Company, LLC; Columbia Fuel Fabrication Facility; and US Ecology, Inc.; Idaho Resource Conservation and Recovery Act Subtitle C Hazardous Disposal Facility Located Near Grand View, Idaho

AGENCY: Nuclear Regulatory Commission.

ACTION: Environmental assessment and finding of no significant impact; issuance.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is issuing an environmental assessment (EA) and finding of no significant impact (FONSI) related to a request for alternate disposal, exemptions, and associated license amendment for the disposition of waste containing byproduct material and special nuclear material (SNM) from the Westinghouse Electric Company, LLC's (WEC) Columbia Fuel Fabrication Facility (CFFF) in Hopkins, South Carolina, under License Number SNM-1107.

Additionally, the NRC is considering the related action of approving exemptions to US Ecology, Inc. (USEI) from the NRC licensing requirements to allow USEI to receive and dispose the material from CFFF without an NRC license. The USEI disposal facility, located near Grand View, Idaho, is a Subtitle C Resource Conservation and Recovery Act (RCRA) hazardous waste disposal facility permitted by the State of Idaho to receive low-level radioactive waste and is not licensed. Approval of the alternate disposal request from WEC and the exemptions requested by WEC and USEI would allow WEC to transfer the specific waste from CFFF for disposal at USEI.

DATES: The EA and FONSI referenced in this document are available on **[INSERT DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**.

ADDRESSES: Please refer to Docket ID **NRC-2020-0263** when contacting the NRC about the availability of information regarding this document. You may obtain publicly available information related to this document using any of the following methods:

- **Federal Rulemaking Web Site:** Go to <https://www.regulations.gov> and search for Docket ID **NRC-2020-0263**. Address questions about Docket IDs in Regulations.gov to Jennifer Borges; telephone: 301-287-9127; e-mail: Jennifer.Borges@nrc.gov. For technical questions, contact the individual listed in the **FOR FURTHER INFORMATION CONTACT** section of this document.

- **NRC's Agencywide Documents Access and Management System (ADAMS):** You may obtain publicly available documents online in the ADAMS Public Documents collection at <https://www.nrc.gov/reading-rm/adams.html>. To begin the search, select "Begin Web-based ADAMS Search." For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at 1-800-397-4209, 301-415-4737, or by e-mail to pdr.resource@nrc.gov.

- **Attention:** The PDR, where you may examine and order copies of public documents is currently closed. You may submit your request to the PDR via e-mail at PDR.Resource@nrc.gov or call 1-800-397-4209 between 8:00 a.m. and 4:00 p.m. (EST), Monday through Friday, except Federal holidays.

FOR FURTHER INFORMATION CONTACT: David Tiktinsky, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington DC 20555-0001; telephone: 301-415-8740, e-mail: David.Tiktinsky@nrc.gov.

SUPPLEMENTARY INFORMATION:

I. Introduction

By letter dated May 8, 2020 (ADAMS Accession No. ML20129J935; Package No. ML20129J934), as supplemented on September 22, 2020 (ADAMS Accession No. ML20266G551), and October 13, 2020 (ADAMS Accession No. ML20287A545), WEC requested an exemption and associated license amendment to License SNM-1107, issued for the operation of CFFF located in Hopkins, South Carolina. The requests are for NRC authorization for an alternate disposal of specified NRC-licensed byproduct and SNM from the CFFF. As required by section 51.21 of title 10 of the *Code of Federal Regulations* (10 CFR), the NRC conducted an EA. Based on the results of the EA that

follows, the NRC has determined that pursuant to 10 CFR 51.31, preparation of an environmental impact statement for the exemption request is not required and pursuant to 10 CFR 51.32, issuance of a FONSI is appropriate.

A corresponding exemption request from USEI, dated May 11, 2020 (ADAMS Accession No. ML20280A601), would allow for possession and disposal of the byproduct and SNM materials at the USEI disposal site. USEI is a RCRA Subtitle C hazardous waste disposal facility located near Grand View, Idaho.

II. Environmental Assessment

Description of the Proposed Action

WEC and USEI requested NRC approval for a 10 CFR 20.2002 alternate disposal request, exemptions to 10 CFR part 70.3 and 10 CFR 30.3, and a conforming WEC license amendment to allow WEC to transfer specific waste from CFFF for disposal at the USEI disposal facility.

Waste being considered in this request includes approximately 2,550 cubic meters (m^3 ; 90,000 cubic feet (ft^3)) of radiologically contaminated soil, sludge, and debris associated with the East Lagoon, a treatment/settling pond that received effluents from multiple sources throughout the site. The East Lagoon is in the process of being closed in accordance with a consent agreement and regulations set by the South Carolina Department of Health and Environmental Control (SCDHEC). In addition to the material from the East Lagoon, the request also includes approximately 1430 m^3 (50,400 ft^3) of previously dredged CaF_2 sludge being stored on site. WEC proposes to mix these materials with Portland cement to stabilize the material for shipping. WEC proposes to transport this aggregated waste stream to USEI using a combination of trucks and railcars.

In addition to this soil and sludge, the request also includes the shipping and disposal of up to 526 obsolete UF_6 cylinders previously used for transportation. The cylinders are contaminated with SNM and U-238, and represent a disposal volume of approximately 651 m^3 (23,000 ft^3) prior to downsizing. The UF_6 Cylinders are solid form

(steel), approximately 1.8 m (6 ft) in length and 0.76 m (2.5 ft) in diameter. The UF₆ Cylinders are empty and have been through the UF₆ Cylinder internal wash/rinse process following their last use. The UF₆ Cylinders will be downsized to eliminate void space prior to packaging for shipment offsite for disposal. The UF₆ Cylinders would be transported to the USEI site by trucks, separate from the aggregated waste shipments.

Both waste streams would be transported from CFFF in South Carolina to the USEI facility, Grand View, Idaho in the Owyhee Desert. The USEI facility is a RCRA Subtitle C hazardous waste disposal facility permitted by the State of Idaho. The USEI site has both natural and engineered features that limit the transport of radioactive material. The natural features include a low precipitation rate [i.e., 18.4 cm/year (7.4 in./year)] and a long vertical distance to groundwater (i.e., 61-meter (203-ft) thick on average unsaturated zone below the disposal zone). The engineered features include an engineered cover, liners, and leachate monitoring systems. Because the USEI facility is not licensed by the NRC, this proposed action requires the NRC to exempt USEI from the Atomic Energy Act of 1954, and NRC licensing requirements with respect to USEI's requested receipt and disposal of this material.

Need for the Proposed Action

The need for the proposed action is to authorize a safe and appropriate method of disposal for the subject waste material generated during day-to-day activities and currently being stored at the CFFF. Specifically, the East Lagoon is in the process of being closed in accordance with a consent agreement and regulations set by the SCDHEC. Thus, material associated with the East Lagoon must be removed from the site in order to comply with regulatory requirements. The proposed alternate disposal would also conserve low-level radioactive waste disposal capacity at licensed low-level radioactive disposal sites while ensuring that the material being considered is disposed of safely in a regulated facility.

Environmental Impacts of the Proposed Action

The NRC staff reviewed the information provided by WEC to support their 10 CFR 20.2002 alternate disposal request and for the specific exemptions from 10 CFR 30.3 and 10 CFR 70.3 in order to dispose of the aggregated waste and UF₆ cylinders at USEI. Under the 10 CFR 20.2002 criteria, a licensee may seek NRC authorization to dispose of licensed material using procedures not otherwise authorized by NRC regulations. The licensee's supporting analysis must show that the radiological doses arising from the proposed 10 CFR 20.2002 disposal will be as low as reasonably achievable and within the 10 CFR part 20 dose limits.

WEC performed a radiological assessment in consultation with USEI. Based on this assessment, WEC concludes that potential doses to members of the public, including transportation workers and USEI workers involved in processing and disposing of the waste upon its arrival at USEI, are less than 1 mrem/y, well within the "few mrem" criteria that the NRC established (see NUREG-1757, Volume 1, Revision 2).

As documented in the Safety Evaluation Report (SER), the NRC staff reviewed scenarios and related input parameters considered by WEC and USEI and found that they are appropriate for the scenarios considered. The NRC staff also reviewed the projected doses from the post-closure and intruder scenarios at USEI and found them acceptable. NRC staff did note that the inadvertent intruder construction scenario had potential doses that were larger than the other inadvertent intruder scenarios evaluated, but the NRC does not consider this scenario to be feasible due to the configuration of the disposal cells and USEI's waste disposal practices. NRC staff also notes that the proposed disposals are also subject to regulation under RCRA.

Based upon its evaluation above and its assessment of the potential impacts of the proposed action, in addition to focusing on the potential radiological impacts discussed above, this EA next considers potential environmental impacts from non-radiological materials. With regard to potential non-radiological impacts, the NRC staff concludes that approval of the proposed request to dispose of material with small amounts of radioactive material would not have significant environmental impacts,

including effects on non-radiological effluents, air quality, or noise. In addition, approval of the proposed action will not significantly increase the probability or consequences of accidents as well as occupational and public radiation exposure because of the quantities and forms of material involved, as further evaluated in the NRC's SER.

Therefore, due to the very small amounts of radioactive material involved, the evaluation above, and the NRC staff's analysis in the SER, the NRC staff finds that the environmental impacts of the proposed action are not significant.

Environmental Impacts of the Alternatives to the Proposed Action

As an alternative to the proposed action, the NRC staff considered the no-action alternative in which the NRC staff would deny the disposal request. Denial of the request would require WEC to find another disposal pathway for this material, and would ultimately only change the location of the disposal site. All other factors would remain the same or similar. Therefore, the no-action alternative was not further considered. NRC staff also notes that pursuing the no-action alternative would result in the licensee potentially violating the SCDHEC requirements to remove the material from the East Lagoon so that it can be remediated while it identifies another disposal option.

Agencies and Persons Consulted

In accordance with its stated policy, on November 23, 2020, the staff consulted with SCDHEC and the Idaho Department of Environmental Quality regarding the environmental impacts of the proposed action. The state officials concurred with the EA and FONSI.

III. Finding of No Significant Impact

The proposed action consists of NRC approval of a) WEC's and USEI's alternate disposal requests under 10 CFR 20.2002, b) WEC and USEI's exemption requests under 10 CFR 30.11(a) and 10 CFR 70.11(a), and c) the issuance of a conforming license amendment to WEC. Based on this EA, the NRC finds that there are no significant environmental impacts from the proposed action. Therefore, the NRC has

determined, pursuant to 10 CFR 51.31, that preparation of an environmental impact statement is not required for the proposed action and a FONSI is appropriate.

IV. Availability of Documents

The documents identified in the following table are available to interested persons through one or more of the following methods, as indicated.

DOCUMENT	ADAMS ACCESSION NO.
Request for Alternate Disposal Approval and Exemption for Specific Columbia Fuel Fabrication Facility Waste (License No. SNM-1197, Docket No. 70-1151), dated May 8, 2020	ML20129J934 (Package)
Request for Exemptions under 10 CFR 30.11 and 10 CFR 70.17 for Alternate Disposal of Wastes from Columbia Fuel Fabrication Facility Under 10 CFR 20.2002, dated May 11, 2020	ML20280A601
Response to Request for Additional Information – Alternate Disposal Approval and Exemptions for Specific Columbia Fuel Fabrication Facility Waste (License No. SNM-1107, Docket No. 70-1151), dated September 22, 2020	ML20266G551
Response to Request for Additional Information – Alternate Disposal Approval and Exemptions for Specific Columbia Fuel Fabrication Facility Waste (License No. SNM-1107, Docket No. 70-1151), dated October 13, 2020	ML20287A545
Safety Evaluation Report	ML20302A085
NUREG-1757, Volume 1, Revision 2, “Consolidated Decommissioning Guidance”	ML063000243

Dated: December 3, 2020.

For the Nuclear Regulatory Commission.

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