



NUCLEAR REGULATORY COMMISSION

[Docket No. 70-1151; NRC-2020-0265]

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: License amendment and exemption; issuance.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is issuing an exemption and associated license amendment related to a request from Westinghouse Electric Company, LLC (WEC) from NRC regulations with respect to a request for alternate disposal and exemption for specified low-activity radioactive waste from the Columbia Fuel Fabrication Facility (CFFF) in Hopkins, South Carolina for waste containing byproduct material and special nuclear material (SNM) under License Number SNM-1107. Additionally, the NRC is taking the related action of approving exemptions to US Ecology, Inc. (USEI) from the applicable licensing requirements to allow USEI to receive and possess 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 by the NRC. Approval of the alternate disposal request from WEC, the exemptions and license amendment requested by WEC and associated exemptions for USEI would allow WEC to transfer the specific waste from CFFF for disposal at USEI.

DATES: This exemption is effective on December 9, 2020.

ADDRESSES: Please refer to Docket ID **NRC-2020-0265** 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-2020-0265**. 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. The Request for Alternate Disposal Approval and Exemption for Specific Columbia Fuel Fabrication Facility Waste (License No. SNM-1197, Docket No. 70-1151) is available in ADAMS under Package Accession No. ML20129J934. The 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 is available in ADAMS under Accession No. ML20266G551. The 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 is available in ADAMS under Accession No. ML20287A545. The staff's Safety Evaluation Report dated November 30, 2020 is available in ADAMS under Package Accession No. ML20329A352.

- **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. Background

Westinghouse Electric Company, LLC (WEC) is the holder of a Special Nuclear Materials (SNM) License SNM-1107 under part 70 of title 10 of the *Code of Federal Regulations* (10 CFR), which authorizes the fabrication of nuclear fuel at the Columbia Fuel Fabrication Facility (CFFF). The US Ecology, Inc. (USEI) disposal facility 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 radioactive waste that is not licensed or exempted from licensing by the NRC.

II. Request/Action

The proposed action would approve the alternate disposal request and provide exemptions to 10 CFR 70.3 and 10 CFR 30.3, and an associated WEC license amendment, allowing WEC to transfer and USEI to receive and dispose specific wastes.

The East Lagoon is a treatment/settling pond that is approximately 160' x 130'. The East Lagoon receives liquid inputs such as effluent from the Deionized Water Building (primarily from regeneration water from resin beds) and rainwater from containment areas such as the chemical tank farm. The East Lagoon also provides extra capacity for overflow from other lagoons or for containment in the event of a spill or emergency. Current East Lagoon operations are regulated under Westinghouse's National Pollutant Discharge Elimination System permit for the Columbia site. However, based on past wastewater treatment area operations and the age of the East Lagoon liner, a Wastewater Treatment Area Operable Unit was established under the South Carolina Department of Health and Environmental Control (SCDHEC) Consent Agreement signed on February 26, 2019. As part of the Consent Agreement, the East Lagoon is planned for closure and remediation. The East Lagoon contains

approximately 3 to 4 feet of radiologically contaminated sludge. The East Lagoon was originally lined in the early 1980's. While this liner is still in place, WEC assumes it may have lost some integrity. Therefore, there is the possibility of soil contamination under and around the East Lagoon due to leaching that would also be excavated and disposed of as part of this action. Approximately 45,000 ft³ of sludge, soil and debris will be generated from the closure of the East Lagoon. The waste from the East Lagoon being considered under this request is contaminated with SNM (low enriched uranium {<5 wt. % U-235}) and the fission product Technetium-99 (Tc-99). The SNM and Tc-99 contaminated wastes were generated from plant operations during the fabrication of nuclear fuel. Tc-99 is present in the process due to uranium feed that originated from sources of recycled uranium or down-blended high enriched uranium. In addition to the material generated from the closure of the East Lagoon, WEC intends to dispose of approximately 1428 m³ (50,400 ft³) of solid CaF₂ sludge previously dredged from the Calcium Fluoride Lagoons and subsequently placed in a storage pile. The CaF₂ sludge was generated as a waste from uranium recovery waste treatment process and is contaminated with SNM (low enriched uranium {<5 wt. % U-235}) as well.

The sludge, soil, and debris associated with the closure of the East Lagoon will be shipped with the CaF₂ sludge to USEI using a combination of trucks and railcars.

WEC also intends to dispose of up to 526 obsolete UF₆ Cylinders, which represent a disposal volume of approximately 651 m³ (23,000 ft³) prior to downsizing. The UF₆ Cylinders are transportation containers that are no longer in service. The UF₆ 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 and prior to being placed into storage pending disposal. The UF₆ Cylinders will be downsized to eliminate void space prior to packaging for shipment offsite for disposal. While emptied and cleaned, the UF₆ Cylinders are still internally contaminated with SNM.

The UF₆ Cylinders will be transported to the USEI site by trucks, separate from the aggregated waste shipments described above.

III. Discussion

Pursuant to 10 CFR 70.17 and 10 CFR 30.11, the Commission may, upon application of any interested person or upon its own initiative, grant such exemptions from the requirements of 10 CFR part 70 and part 30 respectively, as it determines are authorized by law and will not endanger life or property or the common defense and security and are otherwise in the public interest.

The Exemption is Authorized by Law

The proposal provides that the material described above would be transported in compliance with U.S. Department of Transportation regulations to USEI in Idaho, which is a Subtitle C RCRA hazardous waste disposal facility permitted by the State of Idaho. As such, the material will be removed per State and local regulations, will be shipped per existing Federal regulations to a location approved by the State of Idaho to receive the material, and such disposal is not otherwise contrary to NRC requirements, and is therefore authorized by law.

The Exemption will not endanger life, property and is consistent with the common defense and security

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 and associated license amendment in order to dispose of aggregated waste and UF₆ Cylinders at USEI. As documented in the Safety Evaluation Report, the NRC staff concludes that, consistent with 10 CFR 20.2002, WEC provided an adequate description of the materials and the proposed manner and conditions of waste disposal. The NRC staff also concluded that the use of the site-specific dose assessment methodology to evaluate the projected doses associated with the transportation and disposal of the waste streams at USEI are acceptable. The NRC staff reviewed the input parameters included in this modeling and found that they are

appropriate for the scenarios considered. The NRC staff also evaluated the potential doses associated with transportation, waste handling, and disposal and found that the projected doses have been appropriately estimated and are demonstrated to meet the NRC's alternate disposal standard of contributing a dose of not more than "a few millirem per year" to any member of the public and are as low as is reasonably achievable. The NRC staff also concluded that the projected doses from the post-closure and intruder scenarios at USEI are also within "a few millirem per year" over a period of 1,000 years. Lastly, because of the presence of SNM, the NRC evaluated potential criticality in its SER, and found no concerns. Therefore, the NRC concludes that issuance of the exemption is will not endanger life, property, and is consistent with the common defense and security.

The Exemption is in the Public Interest

Issuance of the exemptions to WEC and USEI is in the public interest because it would provide for the efficient and safe disposal for the subject waste material, would facilitate the decommissioning of the East Lagoon at the CFFF site consistent with the consent agreement between CFFF and SCDHEC, and would 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. Therefore, based upon the evaluation above, an exemption is appropriate pursuant to 10 CFR 30.11 and 10 CFR 70.17.

IV. Environmental Considerations

As required by 10 CFR 51.21, the NRC performed an environmental assessment (EA) that analyzes the environmental impacts of the proposed exemption in accordance with the National Environmental Policy Act of 1969 and NRC implementing regulations in 10 CFR part 51. Based on that EA, the NRC staff has determined not to prepare an environmental impact statement for the proposed exemption and has issued a finding of no significant impact (FONSI). The EA and FONSI were published in the *Federal Register* on December 9, 2020 (85 FR 79228).

V. Conclusions

Accordingly, the Commission has determined that, pursuant to 10 CFR 70.17 and 10 CFR 30.11, the exemptions for WEC and USEI and associated WEC license amendment are authorized by law, will not present an undue risk to the public health and safety, is consistent with the common defense and security, and is in the public interest. Therefore, the Commission hereby grants WEC and USEI exemptions from 10 CFR 70.3 and 10 CFR 30.3 to allow WEC to transfer the specifically identified byproduct material and SNM waste described above from the WEC CFFF for disposal at the USEI disposal facility located near Grand View, Idaho, and issues WEC a conforming license amendment.

Dated: December 10, 2020.

For the Nuclear Regulatory Commission.

Damaris Marcano,

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