



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

May 11, 2020

Ms. Elizabeth Connell
Associate Principal Deputy Assistant Secretary
Regulatory and Policy Affairs
US Department of Energy
Office of Environmental Management
1000 Independence Ave., SW
Washington, DC 20585-1290

SUBJECT: UNITED STATES NUCLEAR REGULATORY COMMISSION TECHNICAL
EVALUATION REPORT FOR THE DRAFT WASTE INCIDENTAL TO
REPROCESSING EVALUATION FOR CLOSURE OF WASTE MANAGEMENT
AREA C AT THE HANFORD SITE

Dear Ms. Connell:

By letter dated June 4, 2018 (Agencywide Document Access and Management System (ADAMS) Accession No. ML18156A447), the U.S. Department of Energy (DOE) requested that the U.S. Nuclear Regulatory Commission (NRC) conduct a consultative review of its "Draft Waste Incidental to Reprocessing [WIR] Evaluation for Closure of Waste Management Area C [WMA C] at the Hanford Site," dated March 2018 (Draft WIR Evaluation, ADAMS Accession No. ML18156A446). The Draft WIR Evaluation also includes the "Performance Assessment of Waste Management Area C, Hanford Site, Washington," dated September 2016 (WMA C PA, ADAMS Accession No. ML18099A127) and other supporting documents. The NRC submitted a Request for Additional Information to the DOE by letter dated April 30, 2019 (ADAMS Accession No. ML19112A091) and the DOE provided its response by letter dated October 22, 2019 (ADAMS Accession No. ML19305A296). The purpose of the Draft WIR Evaluation and its supporting documents is to show that DOE's actions or proposed actions for managing waste residuals in grouted tanks and ancillary structures will satisfy the criteria in DOE Manual 435.1-1, *Radioactive Waste Management Manual*. These criteria must be met for a determination that WMA C WIR is not high-level radioactive waste and may be managed as low-level radioactive waste.

The NRC staff has conducted an independent, risk-informed, technical review of the Draft WIR Evaluation, the WMA C PA, and associated documentation provided by the DOE and documented the results of its review in the enclosed Technical Evaluation Report. This consultative review was conducted in accordance with the Interagency Agreement between the DOE and the NRC for Hanford activities, in which the DOE has requested that the NRC provide technical advice and consultation regarding DOE WIR determinations for closure of the storage tanks in WMA C.

In the Draft WIR Evaluation, DOE addressed the stabilized residuals that will remain in the waste tanks and ancillary structures at the time of WMA C closure. The Draft WIR Evaluation, and the NRC staff review, do not address other facilities or systems, waste removed from the waste tanks and ancillary structures, or the contaminated soil and groundwater from any

previous leaks or releases at WMA C. In addition, the NRC staff review did not address the question of whether waste residuals should be managed as transuranic waste, since DOE did not seek this type of technical advice in the Interagency Agreement requesting consultation from the NRC.

As a result of its review, the NRC staff concluded that the DOE has demonstrated that it has met all three of the criteria in DOE Manual 435.1-1 in all WMA C tanks and ancillary equipment except plugged pipelines. The NRC recommends that the DOE characterize the plugged pipelines to determine the concentration of radionuclides and the amount of free liquids that are present. These conclusions and recommendations, as well as others included within the Technical Evaluation Report, are being provided to the DOE for consideration only and are not intended to represent any regulatory authority related to the DOE's waste determination activities.

In accordance with 10 CFR 2.390 of the NRC's "Agency Rules of Practice and Procedure," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records component of NRC's ADAMS. ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

If you have any questions or need additional information regarding this report, please contact Ms. Priya Yadav at Priya.Yadav@nrc.gov or (301) 415-6667.

Sincerely,



Stephen S. Koenick, Chief
Low-Level Waste and Projects Branch
Division of Decommissioning, Uranium Recovery
and Waste Programs
Office of Nuclear Material Safety
and Safeguards

Docket No. PROJ0736

Enclosure:
NRC Technical Evaluation Report for Hanford WMA C

cc: w/ Enclosure:
WIR ListServ

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