



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

June 20, 2017

Christopher J. Wamser, Site Vice President  
Entergy Nuclear Operations, Inc.  
Vermont Yankee Nuclear Power Station  
320 Governor Hunt Road  
Vernon, VT 05354

SUBJECT: VERMONT YANKEE NUCLEAR POWER STATION – REQUEST FOR 10 CFR 20.2002 ALTERNATE DISPOSAL AT US ECOLOGY IDAHO (TAC NO. L53116)

By letter dated January 14, 2016 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML16029A071), as supplemented by letter dated, June 28, 2016 (ADAMS Accession No. ML16182A035), and e-mail dated August 11, 2016 (ADAMS Accession No. ML16231A028), Entergy Nuclear Operations, Inc. (ENO) submitted to the U.S. Nuclear Regulatory Commission (NRC), a request for alternate disposal of approximately 200,000 gallons of waste water. The water is associated with the decommissioning of the Vermont Yankee Nuclear Power Station (VY) and contains low concentrations of fission and activation products resulting from VY operations.

ENO plans to dispose of this material at the U.S. Ecology Idaho (USEI) Resource Conservation and Recovery Act Subtitle C hazardous disposal facility located near Grand View, Idaho. USEI is not an NRC-licensed facility. ENO made this request under the alternate disposal provision contained in Title 10 of the *Code of Federal Regulations* 20.2002 (10 CFR 20.2002), which permits a licensee to request NRC approval for alternate disposal procedures.

On January 14, 2016, USEI submitted a request for an exemption from the licensing requirements of 10 CFR 30.3 to allow for the transfer of the waste containing byproduct material to USEI and disposal of the byproduct material at the USEI facility (ADAMS Accession No. ML16021A173). Specific exemptions to the licensing requirements of 10 CFR 30.3 are provided for under 10 CFR 30.11. When evaluating the 10 CFR 30.11 exemption request in conjunction with the 10 CFR 20.2002 alternative disposal request, the NRC applied a similar standard to both reviews. That exemption is addressed in separate correspondence to USEI.

To obtain approval for 10 CFR 20.2002 alternate disposal, the NRC requires that the licensee demonstrate that doses will be maintained “as low as reasonably achievable” (ALARA) and within the applicable public and occupational dose limits. The NRC has determined that the ALARA standard requires a licensee to demonstrate that the dose to a member of the public (including all exposure groups) is no more than “a few millirem per year” per SECY-07-0060, “Basis and Justification for Approval Process for 10 CFR 20.2002 Authorizations and Options for Change” (ADAMS Accession No. ML062050587). The NRC has evaluated the potential doses associated with transportation, waste handling, and disposal as a part of its review of ENO’s 10 CFR 20.2002 request. The NRC determined that the projected doses to individual transportation and USEI workers have been appropriately estimated and are demonstrated to meet the NRC’s alternate disposal dose requirement of not more than “a few millirem per year.”

Independent review of the post-closure and intruder scenarios at USEI confirmed that the maximum projected dose over a period of 1,000 years is also not more than “a few millirem per year.”

The enclosed Safety Evaluation documents the basis for the acceptability of the 10 CFR 20.2002 alternate disposal request. The staff also evaluated the environmental impacts of the approval and exemption and determined that granting them would not result in any significant environmental impacts. For this action, an Environmental Assessment and Finding of No Significant Impact was prepared and published in the *Federal Register* on April 3, 2017 (82 FR 16239). Accordingly, pursuant to 10 CFR 20.2002, the approval for alternate disposal of the approximately 200,000 gallons of waste water material at the USEI Grand View, Idaho disposal facility is granted and effective immediately.

A copy of our related Safety Evaluation is enclosed. 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>.

Sincerely,

**/RA/**

John R. Tappert, Director  
Division of Decommissioning, Uranium Recovery  
and Waste Programs  
Office of Nuclear Material Safety  
and Safeguards

Docket No. 50-271  
License No. DPR-028

Enclosure: Safety Evaluation

cc w/enclosure: Vermont Yankee ListServ

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DATED JUNE 20, 2017

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