



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

May 7, 2021

Corey R. Daniels, ISFSI Manager
NorthStar Nuclear Decommissioning Co., LLC
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
(EPID No. L-2020-D20-0000)

By letter dated May 20, 2020 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML20157A123), as supplemented by letter dated September 21, 2020 (ADAMS Accession No. ML20290A492) and e-mail dated March 15, 2021 (ADAMS Accession No. ML21075A144), NorthStar Nuclear Decommissioning Co., LLC (NorthStar or the licensee) submitted to the U.S. Nuclear Regulatory Commission (NRC), a request for alternate disposal of approximately 2,000,000 gallons of wastewater. 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.

NorthStar 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. NorthStar 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 May 4, 2020 (ADAMS Accession No. ML20174A590), 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 the processing and disposal of the byproduct material at the USEI facility. Specific exemptions to the licensing requirements of 10 CFR 30.3 are provided for under 10 CFR 30.11.

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 waste handling and disposal as a part of its review of NorthStar’s 10 CFR 20.2002 request. The NRC determined that the projected doses to individual 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" as described in the enclosed safety evaluation report (SER) (Enclosure 1).

The SER 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 were prepared (Enclosure 2) and was published in the *Federal Register* on May 7, 2021 (86 FR 24675). Accordingly, pursuant to 10 CFR 20.2002, the request for alternate disposal of the approximately 2,000,000 gallons of wastewater material at the USEI Grand View, Idaho disposal facility, as described in the licensee's and USEI's submittals, 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 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,



Signed by Holahan, Patricia
on 05/07/21

Patricia K. Holahan, Director
Division of Decommissioning, Uranium Recovery
and Waste Programs
Office of Nuclear Material Safety
and Safeguards

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

Enclosures:
As stated

cc w/enclosures:

Vermont Yankee ListServ

Ms. June Tierney, Commissioner
Vermont Department of Public Service
112 State Street - Drawer 20
Montpelier, VT 05602-2601

Ms. Natalie Creed, Hazardous Waste Bureau Chief
Waste Management and Remediation Division
Idaho Department of Environmental Quality
1410 N Hilton Street
Boise, ID 83706

Mr. Joseph J. Weismann, CHP
Vice President, Radiological Programs
U.S. Ecology, Inc.
251 E. Front St., Suite 400
Boise, ID 83702

Vermont Yankee Nuclear Power Station - NorthStar Letter Request for 10 CFR 20.2002 Alternate Disposal at US Ecology Idaho (License DPR-28, Docket No. 50-271) DATE May 7, 2021

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DATE	Mar 24, 2021	Mar 25, 2021	Mar 25, 2021	Apr 28, 2021
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NAME	PHolahan <i>PH</i>			
DATE	May 7, 2021			

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