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October 19, 2018

VIA ePUC

Ms. Judith C. Whitney Clerk Vermont Public Utility Commission Peoples United Bank Building 112 State Street Montpelier, VT 05620-2701

Re: Docket 8880: Joint Petition of NorthStar Decommissioning Holdings, LLC, NorthStar Nuclear Decommissioning Company, LLC, NorthStar Group Services, Inc., LVI Parent Corp., NorthStar Group Holdings, LLC, Entergy Nuclear Vermont Investment Company, LLC, and Entergy Nuclear Operations, Inc. and any other necessary affiliated entities to transfer ownership of Entergy Nuclear Vermont Yankee, LLC, and for certain ancillary approvals, pursuant to 30 V.S.A. §§ 107, 231, and 232

Dear Ms. Whitney:

On behalf of Joint Petitioners in the above-captioned proceeding, we write pursuant to the Vermont Public Utility Commission's ("PUC") procedural order dated July 6, 2018, which, *inter alia*, called on the parties to submit, within ten days of a U.S. Nuclear Regulatory Commission ("NRC") order on Joint Petitioners' license transfer application, a joint proposal concerning what further filings and proceedings, if any, should be made in this docket, or to submit individual proposals if agreement could not be reached on a joint proposal.

By way of background, the NRC issued an order dated October 11, 2018, approving the license transfer application; that order became available to Joint Petitioners and was submitted by them to the PUC on October 12, 2018. The NRC issued an exemption dated October 12, 2018, allowing limited use of the Nuclear Decommissioning Trust for spent fuel management costs; that exemption became available to Joint Petitioners and was submitted by them to the PUC on October 16, 2018.

In Joint Petitioners' October 12, 2018 cover letter, they indicated that, because the NRC order did not remove any requirements of the March 2, 2018 memorandum of understanding ("MOU") in this docket (Ex. PUC-2), and only added one additional requirement concerning an obligation to obtain a relatively small performance bond to guarantee spent fuel management in the event that NorthStar did not timely receive a recovery from the U.S. Department of Energy, there is no need for any further filings or process in this docket, and the PUC should proceed to issue its decision by the October 31, 2018 deadline set forth in the MOU, as amended. Joint Petitioners' cover letter stated that they intended to discuss this matter with all parties in an effort to make a joint proposal, as required by the PUC's procedural order dated July 6, 2018.

On October 17, 2018, Intervenor Conservation Law Foundation ("CLF") filed a letter arguing that Joint Petitioners should file additional prefiled testimony enclosing the NRC order and exemption as exhibits and committing to adhere to the requirements set forth in the NRC order.

Joint Petitioners continue to believe that the filing of such prefiled testimony is unnecessary because the NRC order and exemption speak for themselves as legal documents and are binding on Joint Petitioners by virtue of the NRC's regulatory authority. Nonetheless, in an effort to avoid an unnecessary dispute requiring the PUC's attention, Joint Petitioners herewith are filing the Seventh Supplemental Prefiled Testimony of Scott E. State, with exhibits.

Subsequent to CLF's October 17 filing, Joint Petitioners consulted with CLF to ascertain whether CLF believed that additional process would be necessary following the filing of such prefiled testimony. CLF indicated that it was possible that it would conclude that no such process would be necessary, but that CLF could not make that determination before reviewing the prefiled testimony.

Joint Petitioners also consulted with the following active parties in this docket (each of which signed the MOU)—namely, the Vermont Department of Public Service, Vermont Attorney General's Office, Vermont Agency of Natural Resources, Windham Regional Commission, Town of Vernon, Elnu Abenaki Tribe, and Missisquoi Abenaki Tribe—and each agrees with Joint Petitioners' position that no additional process is necessary following the filing of the prefiled testimony.

Joint Petitioners also consulted with the New England Coalition (which also signed the MOU), and the New England Coalition states that it continues to support the adoption of the MOU by the PUC but takes no position on whether additional process is necessary following the filing of the prefiled testimony.

For the PUC's and the parties' convenience, we note that the following NRC materials were previously filed as exhibits to testimony in this docket: Exhibits JP-SES-SUPP-1 (License Transfer Application and Exhibits); JP-SES-12 (NRC Staff's requests for additional information ("RAIs"), dated November 3, 2017); DPS-BEW-6 (same); JP-SES-13 (First response to November

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¹ The amendment to the MOU was filed with the PUC on July 31, 2018.

3 RAIs, dated December 4, 2017); JP-SES-14 (Second response to November 3 RAIs, dated December 22, 2017); JP-SES-15 (State of Vermont's notice of anticipated withdrawal of hearing request, dated March 7, 2018); JP-SES-16 (New England Coalition's amended motion to hold in abeyance consideration of petition for leave to intervene and hearing request, dated March 12, 2018); JP-SES-17 (NRC Staff's further RAIs, dated April 5, 2018); CLF-MOH-15 (same); JP-SES-18 (NRC's order granting NEC's amended motion, dated April 12, 2018); JP-SES-19 (Response to April 5 RAIs, dated May 21, 2018); JP-SES-21 (revision to Support Agreement to be submitted to NRC); and JP-SES-22 (Supplemental RAI response, dated June 28, 2018).

As set forth in Joint Petitioners' letter dated October 12, 2018, Joint Petitioners respectfully request that the PUC issue its decision in this docket by the October 31, 2018 deadline set forth in the MOU, as amended.

Thank you for your attention to this matter.

61.1/2 - los

Respectfully submitted,

Sanford I. Weisburst

Encls.

cc: Counsel of record (via ePUC)

STATE OF VERMONT

PUBLIC UTILITY COMMISSION

Joint Petition of NorthStar Decommissioning)	
Holdings, LLC, NorthStar Nuclear)	
Decommissioning Company, LLC, NorthStar)	
Group Services, Inc., LVI Parent Corp.,)	
NorthStar Group Holdings, LLC, Entergy)	
Nuclear Vermont Investment Company, LLC,)	D 1 . M . 0000
and Entergy Nuclear Operations, Inc., and any)	Docket No. 8880
other necessary affiliated entities to transfer)	
ownership of Entergy Nuclear Vermont Yankee,)	
LLC, and for certain ancillary approvals,)	
pursuant to 30 V.S.A. §§ 107, 231, and 232)	
)	

SUMMARY OF SEVENTH SUPPLEMENTAL PREFILED TESTIMONY OF SCOTT E. STATE

Mr. State submits the order of the U.S. Nuclear Regulatory Commission ("NRC") approving the license transfer application regarding Vermont Yankee ("NRC LTA Order"); the NRC's accompanying Safety Evaluation and Amendment To Renewed Facility Operating License; and the NRC's exemption allowing the NorthStar entities to use up to \$20 million of Nuclear Decommissioning Trust funds at any one time for spent fuel management activities. Mr. State commits that the NorthStar entities will adhere to the requirements set forth in the NRC LTA Order and accompanying documents.

Mr. State sponsors the following exhibits:

JP-SES-24	NRC LTA Order (Oct. 11, 2018)
JP-SES-25	NRC Safety Evaluation (Oct. 11, 2018)
JP-SES-26	NRC Amendment To Renewed Facility Operating License (undated; effective at time of transfer)
JP-SES-27	NRC exemption (Oct. 12, 2018; publicly released Oct. 16, 2018)

STATE OF VERMONT

PUBLIC UTILITY COMMISSION

Joint Petition of NorthStar Decommissioning)	
Holdings, LLC, NorthStar Nuclear)	
Decommissioning Company, LLC, NorthStar)	
Group Services, Inc., LVI Parent Corp.,)	
NorthStar Group Holdings, LLC, Entergy)	
Nuclear Vermont Investment Company, LLC,)	D 1 (N 0000
and Entergy Nuclear Operations, Inc., and any)	Docket No. 8880
other necessary affiliated entities to transfer)	
ownership of Entergy Nuclear Vermont Yankee,)	
LLC, and for certain ancillary approvals,)	
pursuant to 30 V.S.A. §§ 107, 231, and 232)	
)	

SEVENTH SUPPLEMENTAL PREFILED TESTIMONY OF SCOTT E. STATE

- Q1. Are you the same Scott E. State that previously submitted prefiled testimony and testified during a live evidentiary hearing in this docket?
- 3 A1. Yes.

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- 4 Q2. What is the purpose of your current (Seventh) supplemental prefiled testimony?
- The purpose is to provide the Vermont Public Utility Commission ("PUC") and the parties with a recent order of the U.S. Nuclear Regulatory Commission ("NRC") approving the NorthStar and Entergy entities' license transfer application ("NRC LTA Order"), Ex. JP-SES-24, two documents that accompanied that order, Ex. JP-SES-25 and JP-SES-26, and an exemption issued by the NRC allowing the NorthStar entities to use up to \$20 million of Nuclear Decommissioning Trust funds at any one time for spent fuel management

activities ("NRC Exemption"), Ex. JP-SES-27.

1	Q3.	Do the NRC LTA Order or the accompanying Safety Evaluation reference the
2		memorandum of understanding ("MOU") entered into by many parties to this docket
3		and entered into evidence in this docket as Ex. PUC-2?
4	A3.	Yes. The NRC LTA Order (Ex. JP-SES-24 at 4) mentions a settlement agreement, which
5		was between and among the same parties that signed the MOU and included all the MOU's
6		provisions. The Safety Evaluation (Ex. JP-SES-25 at 5) references both the MOU and the
7		settlement agreement.
8	Q4.	Do the NRC LTA Order, the accompanying Safety Evaluation and Amendment To
9		Renewed Facility Operating License, or the NRC Exemption remove or undermine
10		in any way the terms and conditions set forth in the MOU?
11	A4.	No.
12	Q5.	Do any of the foregoing documents mentioned in Q4 add any requirements that are
13		not within the MOU?
14	A5.	Yes. Before answering that question, it is worth mentioning that numerous financial
15		assurances required by the MOU (including, for example, the escrow account described in
16		Paragraph 2.c), which were not part of the original package proposed to the NRC or to the
17		PUC, are now required by the NRC's LTA Order and Safety Evaluation (see, e.g., Ex. JP-
18		SES-25 at 12), and will be required as well by any future order of the PUC incorporating
19		the MOU in connection with approving the proposed transaction.
20		As to additional requirements that are not within the MOU, the NRC LTA Order adopts a
21		requirement that NorthStar had proposed to the NRC subsequent to the March 2, 2018
22		MOU in responses to NRC's Requests for Additional Information, which were filed with

the Public Utility Commission together with my Fourth Supplemental Testimony on May
23, 2018 (see Ex. JP-SES-19 at 7). Specifically, the NRC LTA Order adopts NorthStar's
proposed requirement that, in the event the NorthStar entities do not enter into a settlement
agreement with the U.S. Department of Energy by January 1, 2022, the NorthStar entities
shall obtain from a third party a performance bond in the initial amount of \$4.3 million,
which covers the annual amount of spent fuel management costs projected for 2022-24.
That bond must be renewed annually. In the event a settlement is not reached by January
1, 2024, the bond amount must be increased to \$9.3 million, which covers the annual
amount of spent fuel management costs projected for years after 2024. See Ex. JP-SES-24
at 6-7.
Additionally, the NRC LTA Order requires that "NorthStar Vermont Yankee, LLC and
NorthStar Nuclear Decommissioning Company, LLC shall take no action to cause
NorthStar Group Services, Inc., to void, cancel, or modify the \$140 million Support
agreement to provide funding for Vermont Yankee as represented in the application
without prior written consent of the Director of the Office of Nuclear Reactor Regulation."
Ex. JP-SES-24 at 6. A similar requirement requiring consent of the PUC exists under
Paragraph 2.b.2 of the MOU.
Do the NorthStar entities commit to comply with any and all requirements set forth
in the NRC LTA Order, the two accompanying documents, and the NRC Exemption
if the proposed transaction is approved by the PUC and consummated?
Yes.

Q7.

A7.

Q8.

Does that conclude your testimony?

Docket No. 8880 Seventh Supplemental Testimony of Scott E. State October 19, 2018 Page 4 of 4

1 A8. Yes, at this time.

[7590-01-P]

UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

In the Matter of	
Entergy Nuclear Vermont Yankee, LLC)	
Entergy Nuclear Operations, Inc.)	Docket Nos.: 50-271 and 72-59
)	License No.: DPR-28
Vermont Yankee Nuclear Power Station)	
)	

ORDER APPROVING THE TRANSFER OF LICENSE AND CONFORMING AMENDMENT

I.

Entergy Nuclear Operations, Inc. (ENOI), on behalf of itself and Entergy

Nuclear Vermont Yankee, LLC (ENVY), are the holders of Renewed Facility Operating License

No. DPR-28, which authorizes the operation of the Vermont Yankee Nuclear Power Station

(VY), and the general license for the VY Independent Spent Fuel Storage Installation (ISFSI).

VY permanently ceased operations on December 29, 2014. Pursuant to Sections 50.82(a)(1)(i)

and (a)(1)(ii) of Title 10 of the *Code of Federal Regulations* (10 CFR), by letter dated January

12, 2015, ENOI certified to the NRC that it had permanently ceased operations at VY and that

all fuel had been permanently removed from the reactor. Therefore, pursuant to 10 CFR

50.82(a)(2), operations at VY are no longer authorized under the 10 CFR Part 50 license, and

ENOI and ENVY are licensed to possess, but not use or operate, VY under Renewed Facility

Operating License No. DPR-28, subject to the conditions specified therein. The VY site is

located in the town of Vernon, Vermont, in Windham County on the west shore of the

Connecticut River immediately upstream of the Vernon Hydroelectric Station.

By letter dated February 9, 2017 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML17045A140), and as supplemented by letters dated April 6, 2017 (ADAMS Accession No. ML17096A394), August 22, 2017 (ADAMS Accession No. ML17234A141), August 28, 2017 (ADAMS Accession No. ML17248A468), December 4, 2017 (ADAMS Accession No. ML17339A896), December 22, 2017 (ADAMS Accession No. ML18009A459), May 21, 2018 (ADAMS Accession No. ML18143B484), and June 28, 2018 (ADAMS Accession No. ML18183A220), ENOI, on behalf of itself and ENVY, and NorthStar Nuclear Decommissioning Company, LLC (NorthStar NDC) (together, the Applicants), requested that the U.S. Nuclear Regulatory Commission (NRC) consent to the proposed direct and indirect transfer of the VY Renewed Facility Operating License No. DPR-28 and the general license for the VY ISFSI (collectively referred to as the facility). Specifically, the Applicants requested that the NRC consent to the direct transfer of ENOI's currently licensed authority (licensed operator for decommissioning) to NorthStar NDC. In addition, the Applicants requested the indirect transfer of control of ENVY's ownership interests in the facility licenses to NorthStar Decommissioning Holdings, LLC, and its parents NorthStar Group Services, Inc. (NorthStar), LVI Parent Corp. (LVI) and NorthStar Group Holdings, LLC (Holdings). These direct and indirect transfer requests are submitted to the NRC for approval pursuant to Section 184 of the Atomic Energy Act of 1954, as amended (AEA), "Inalienability of Licenses," and 10 CFR 50.80, "Transfer of licenses," 10 CFR 72.50, "Transfer of licenses," and 10 CFR 50.90, "Application for amendment of license, construction permit, or early site permit." The supplemental information letters, listed above, contained clarifying information, did not expand the application beyond the scope of the original notice, and did not affect the applicability of the NRC's no significant hazards consideration determination.

ENOI and ENVY intend to transfer the licensed possession, maintenance, and decommissioning authorities to NorthStar NDC in order to implement expedited decommissioning at VY. Following approval and implementation of the proposed direct transfer of control of the license, NorthStar NDC would assume licensed responsibility for VY through the direct transfer of ENOI's responsibility for licensed activities at VY to NorthStar NDC. If the proposed indirect transfer of control is approved, ENVY would change its name to NorthStar VY, but the same legal entity would continue to exist before and after the proposed transfer. NorthStar VY would also enter into an operating agreement with NorthStar NDC, which provides for NorthStar NDC to act as NorthStar VY's agent and for NorthStar VY to pay NorthStar NDC's costs of operation, including all decommissioning costs. NorthStar VY would own the VY facility as well as its associated assets and real estate, including its nuclear decommissioning trust fund, title to spent nuclear fuel, and rights pursuant to the terms of its Standard Contract for Disposal of Spent Nuclear Fuel and/or High-Level Radioactive Waste with the U.S. Department of Energy. Certain off-site assets and real estate of ENVY are excluded, such as administrative offices and off-site training facilities. Upon the proposed license transfer, NorthStar NDC would assume responsibility for compliance with the current licensing basis, including regulatory commitments that exist at the closing of the transaction between the Applicants, and would implement any changes under applicable regulatory requirements and practices. The Applicants also requested that the NRC approve a conforming administrative amendment to the facility license to reflect the proposed direct transfer of the license from ENOI to NorthStar NDC as well as a planned name change for ENVY from ENVY to NorthStar VY.

Notice of NRC consideration of the license transfer application was published in the *Federal Register (FR)* on May 24, 2017 (82 *FR* 23845) and included an opportunity to comment, request a hearing, and petition for leave to intervene. On June 13, 2017, the State of Vermont

filed a Request for a Hearing and Petition for Leave to Intervene submitting two contentions challenging the proposed license transfer, and, on June 27, 2017, the New England Coalition (collectively, with the State of Vermont, "Petitioners") also filed a Request for a Hearing and Petition for Leave to Intervene with two contentions against the proposed license transfer. On March 7, 2018, and March 12, 2018, the Petitioners filed notices of the anticipated withdrawal of their hearing requests pursuant to a settlement agreement between the Applicants and others, including the Petitioners. The Petitioners requested that their hearing requests be held in abeyance until the Vermont Public Utility Commission acted on the settlement agreement. On April 12, 2018, the Commission granted the Petitioners' motion to hold the proceeding in abeyance pending further notification by the Petitioners. Public comments were also received on this application for license transfer. They are summarized in the Safety Evaluation of this license transfer request.

The staff notes, by letter dated May 25, 2018 (ADAMS Accession No. ML18150A315), in support of the license transfer request, that NorthStar submitted a request for an exemption to 10 CFR 50.82(a)(8)(i)(A) to use up to \$20 million of the VY trust (on a revolving basis) to pay for spent fuel management expenses. The staff approved the exemption request on October 11, 2018 (ADAMS Accession No. ML18274A246). The exemption is being issued simultaneously with this Order.

Pursuant to 10 CFR 50.80, no license for a production or utilization facility, or any right thereunder, shall be transferred, either voluntarily or involuntarily, directly or indirectly, through transfer of control of the license to any person, unless the Commission gives its consent in writing. Upon review of the information in the application and other information before the Commission, and relying upon the representations and agreements contained in the application,

the NRC staff has determined that NorthStar VY and NorthStar NDC are qualified to be the holders of the licenses, and that the direct and indirect transfer of the licenses, as described in the application, is otherwise consistent with applicable provisions of law, regulations, and orders issued by the Commission pursuant thereto, subject to the condition set forth below.

Upon review of the application for a conforming amendment to the VY license to reflect the direct and indirect transfer of the VY licenses, the NRC staff determined the following:

- (1) The application for the proposed license amendment complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I.
- (2) There is reasonable assurance that the activities authorized by the proposed license amendment can be conducted without endangering the health and safety of the public, and that such activities will be conducted in compliance with the Commission's regulations.
- (3) The issuance of the proposed license amendment will not be inimical to the common defense and security or to the health and safety of the public.
- (4) The issuance of the proposed license amendment is in accordance with 10 CFR Part 51 of the Commission's regulations, and all applicable requirements have been satisfied. The findings set forth above are supported by an NRC safety evaluation dated October 11, 2018, which is available at ADAMS Accession No. ML18242A639.

Accordingly, pursuant to Sections 161b, 161i, 161o, and 184 of the AEA, 42 U.S.C. Sections 2201(b), 2201(i), 2201(o), and 2234; and 10 CFR 50.80, 10 CFR 72.50, and 10 CFR 50.90, IT IS HEREBY ORDERED that the application for the direct and indirect transfer of the licenses, as described herein is approved for Vermont Yankee Nuclear Power Station and the ISFSI, subject to the following conditions:

- (1) Prior to the closing of the license transfer, NorthStar NDC and NorthStar VY shall provide the Directors of NRC's Office of Nuclear Material Safety and Safeguards (NMSS) and Office of Nuclear Reactor Regulation (NRR) satisfactory documentary evidence that they have obtained the appropriate amount of insurance required of a licensee under 10 CFR 140.11(a)(4) and 10 CFR 50.54(w) of the Commission's regulations, consistent with the exemptions issued to VY on April 15, 2016.
- (2) NorthStar Vermont Yankee, LLC and NorthStar Nuclear Decommissioning Company, LLC shall take no action to cause NorthStar Group Services, Inc., to void, cancel, or modify the \$140 million Support agreement to provide funding for Vermont Yankee as represented in the application without prior written consent of the Director of the Office of Nuclear Reactor Regulation.
- (3) NorthStar Vermont Yankee, LLC shall obtain a performance bond if a Settlement Agreement with the U.S. Department of Energy (DOE), on DOE reimbursements for spent fuel management expenses, is not entered into by January 1, 2022. The performance bond will be effective January 1, 2022, initially in the amount of \$4.3 million, and it will be renewed annually. This amount covers the annual amount of Independent Spent Fuel Storage Installation (ISFSI) operation and maintenance

(O&M) costs projected for 2022-2024. If a settlement is not reached by January 1, 2024, this amount will be increased to \$9.3 million, which covers the annual amount of ISFSI O&M costs projected for years after 2024.

IT IS FURTHER ORDERED that, consistent with 10 CFR 2.1315(b), the license amendment that makes changes, as indicated in Enclosure 2 to the cover letter forwarding this Order, to conform the license to reflect the subject direct and indirect license transfer, is approved. The amendment shall be issued and made effective within 30 days of the date of when the proposed direct and indirect license transfer action is completed.

IT IS FURTHER ORDERED that NorthStar NDC and NorthStar VY shall, at least 2 business days prior to closing, inform the Directors of NMSS and NRR in writing of the date of closing of the license transfer for VY and the ISFSI. Should the transfer of the license not be completed within 1 year of this Order's date of issuance, this Order shall become null and void; provided, however, that upon written application and for good cause shown, such date may be extended by order.

This Order is effective upon issuance.

For further details with respect to this Order, see the initial application dated February 9, 2017, as supplemented by letters dated April 6, 2017, August 22, 2017, August 28, 2017, December 4, 2017, December 22, 2017, May 21, 2018, and June 28, 2018, and the associated NRC safety evaluation dated October 11, 2018, which are available for public inspection at the Commission's Public Document Room (PDR), located at One White Flint North, 11555 Rockville Pike (first floor), Rockville, Maryland. Publicly available documents are accessible electronically through ADAMS in the NRC Library at

http://www.nrc.gov/reading-rm/adams.html
Persons who encounter problems with ADAMS
should contact the NRC's PDR reference staff by telephone at 1-800-397-4209 or 301-415-4737
or by e-mail to pdr.resource@nrc.gov.

Dated at Rockville, Maryland this 11TH day of October 2018.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Marc L. Dapas, Director Office of Nuclear Material Safety and Safeguards.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION AND OFFICE OF NUCLEAR MATERIAL SAFETY AND SAFEGUARDS

RELATED TO REQUEST FOR DIRECT AND INDIRECT TRANSFERS OF CONTROL OF
RENEWED FACILITY OPERATING LICENSE NO. DPR-28 AND THE
GENERAL LICENSE FOR THE INDEPENDENT SPENT FUEL STORAGE INSTALLATION

FROM ENTERGY NUCLEAR OPERATIONS, INC. AND ENTERGY NUCLEAR VERMONT YANKEE, LLC

TO NORTHSTAR VERMONT YANKEE, LLC AND NORTHSTAR NUCLEAR DECOMMISSIONING COMPANY, LLC

VERMONT YANKEE NUCLEAR POWER STATION

DOCKET NOS. 50-271 AND 72-59

1.0 <u>INTRODUCTION</u>

By letter dated February 9, 2017 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML17045A140), including proprietary financial information provided as Enclosure 1P, "Membership Interest Purchase and Sales Agreement" (ADAMS Accession No. ML17045A139), and as supplemented by letters dated April 6, 2017 (ADAMS Accession No. ML17096A394), August 22, 2017 (ADAMS Accession No. ML17234A141), August 28, 2017 (ADAMS Accession No. ML17248A468), December 4, 2017 (ADAMS Accession No. ML17339A896), December 22, 2017 (ADAMS Accession No. ML18009A459), May 21, 2018 (ADAMS Accession No. ML18143B484), and June 28, 2018 (ADAMS Accession No. ML18183A220), Entergy Nuclear Operations, Inc. (ENOI), on behalf of itself and Entergy Nuclear Vermont Yankee, LLC (ENVY), and NorthStar Nuclear Decommissioning Company, LLC (NorthStar NDC) (together, "Applicants"), requested that the U.S. Nuclear Regulatory Commission (NRC) consent to the proposed direct and indirect transfer of the Vermont Yankee Nuclear Power Station (VY) Renewed Facility Operating License No. DPR-28 and the Vermont Yankee Independent Spent Fuel Storage Installation (ISFSI) general license (collectively referred to as the facility). Specifically, the Applicants requested that the NRC consent to the direct transfer of ENOI's currently licensed authority (licensed operator for decommissioning) to NorthStar NDC. In addition, the Applicants requested the indirect transfer of control of ENVY's ownership interests in the facility licenses to NorthStar Decommissioning Holdings, LLC, and its parents NorthStar Group Services, Inc. (NorthStar), LVI Parent Corp. (LVI) and NorthStar Group Holdings, LLC (Holdings). These direct and indirect transfer requests are submitted to NRC for approval pursuant to Section 184 of the Atomic Energy Act of 1954, as amended (AEA), "Inalienability of Licenses," and Title 10 of the Code of Federal Regulations (10 CFR) 50.80, "Transfer of licenses," 10 CFR 72.50, "Transfer of licenses," and 10 CFR 50.90, "Application for amendment of license, construction permit, or early site permit." Enclosure 1P contains

sensitive unclassified non-safeguards information (proprietary commercial and financial information) that is being withheld from public disclosure pursuant to 10 CFR 2.390.

The Applicants also requested that NRC approve a conforming administrative amendment to the facility license to reflect the proposed direct transfer of the license from ENOI to NorthStar NDC as well as a planned name change for ENVY, from ENVY to NorthStar Vermont Yankee, LLC (NorthStar VY).

Notice of NRC consideration of the application was published in the *Federal Register (FR)* on May 24, 2017 (82 *FR* 23845) and included an opportunity to comment, request a hearing, and petition for leave to intervene. The supplemental letters, listed above, contained clarifying information, did not expand the application beyond the scope of the original notice, and did not affect the applicability of the NRC no significant hazards consideration determination.

Upon approval of the proposed indirect transfer of control, ENVY would change its name to NorthStar VY, but the same legal entity would continue to exist before and after the proposed transfer. NorthStar VY would own the VY facility as well as its associated assets and real estate, including its nuclear decommissioning trust fund, title to spent nuclear fuel, and rights pursuant to the terms of its Standard Contract for Disposal of Spent Nuclear Fuel and/or High-Level Radioactive Waste with the U.S. Department of Energy (DOE). Certain off-site assets and real estate of ENVY are excluded, such as administrative offices and off-site training facilities. Following approval and implementation of the proposed direct transfer of control of the license, NorthStar NDC would become the licensed operator for decommissioning and assume licensed responsibility for VY through the direct transfer of ENOI's responsibility for licensed activities at VY to NorthStar NDC. NorthStar VY would also enter into an operating agreement with NorthStar NDC, which provides for NorthStar NDC to act as NorthStar VY's agent and for NorthStar VY to pay NorthStar NDC's costs of operation, including all decommissioning costs. Upon the proposed license transfer, NorthStar NDC would assume responsibility for compliance with the current licensing basis, including regulatory commitments that exist at the closing of the transaction between the Applicants, and would implement any changes under applicable regulatory requirements and practices.

2.0 BACKGROUND

The VY site is located in the town of Vernon, Vermont, in Windham County on the west shore of the Connecticut River immediately upstream of the Vernon Hydroelectric Station. VY employed a General Electric boiling water reactor nuclear steam supply system licensed to generate 1,912 megawatts (thermal energy). The operating license for VY was issued on March 21, 1972, and commercial operation commenced on November 30, 1972. The license was renewed on March 21, 2011.

By letter dated December 19, 2014 (ADAMS Accession No. ML14357A110), ENOI submitted the Post-Shutdown Decommissioning Activities Report (2014 PSDAR), including the Site-Specific Decommissioning Cost Estimate (DCE), for VY to the NRC. The 2014 PSDAR was submitted in accordance with the requirements of 50.82, "Termination of license," paragraph (a)(4)(i).

On January 12, 2015 (ADAMS Accession No. ML15013A426), pursuant to 10 CFR 50.82(a)(1)(i) and (a)(1)(ii), ENOI certified to the NRC that it had permanently ceased operations

at VY on December 29, 2014, and that all fuel had been permanently removed from the reactor vessel and placed in the spent fuel pool. In accordance with the PSDAR, ENOI placed the VY reactor in SAFSTOR and planned to have all VY spent fuel in dry storage in the onsite ISFSI by 2020, terminate the 10 CFR Part 50 license by 2073, and restore the site by 2075.

By letter dated August 16, 2018 (ADAMS Accession No. ML18234A143), ENOI submitted notification to NRC that all of the spent nuclear fuel assemblies had been transferred from the spent fuel pool and have been placed in dry storage within the onsite ISFSI.

Application for License Transfer

According to the license transfer application, the purpose of the proposed transfers of the licenses is to permit the accelerated radiological decommissioning of the non-ISFSI portions of the VY site. NorthStar NDC would assume possession of, and managerial responsibility for, all licensed activities, including decommissioning of the VY unit, and associated buildings and structures, and possession and licensing of the spent nuclear fuel, by the time the license transfer would be implemented. The principal remaining structures at VY include a reactor building, primary containment, control building, radioactive waste building, intake and discharge structures, turbine building, cooling towers, and main stack.

As the licensed operator, NorthStar NDC will be licensed to possess, maintain, and decommission the VY facilities and ISFSI and will be licensed to possess and maintain the spent nuclear fuel onsite. Under the terms of the proposed transaction, NorthStar NDC would begin decommissioning activities promptly after the transfer becomes effective and would plan to complete radiological decommissioning and restoration of the non-ISFSI portions of the VY site no later than the end of 2030 (and potentially as early as 2026).

NorthStar is a demolition, asbestos abatement, and environmental remediation company with experience in decommissioning large scale industrial and commercial complexes. NorthStar also has radiological decommissioning experience through involvement with the decommissioning of four research reactors at the Universities of Buffalo, Arizona, Illinois, and Washington, which were licensed by the NRC. In addition, according to the license transfer application, NorthStar has been involved with decommissioning at the US Department of Energy's Hanford and Savannah River sites and the deconstruction of nuclear reactor laboratory facilities at several universities, and has been awarded a contract to support the decommissioning of ten reactor sites in the United Kingdom.

According to the application, NorthStar NDC will draw on the experience of individuals from its parent company, NorthStar, and its strategic partners. NorthStar will contract with AREVA, Burns & McDonnell, and Waste Control Specialists as strategic partners to take advantage of their decommissioning experience, which includes NRC regulated power reactor vessel/internals segmentation and packaging, and spent fuel support (AREVA), NRC regulated quality assurance and compliance engineering experience and participation in NRC regulated decommissioning projects (Burns & McDonnell), and radioactive waste management, packaging, transportation, and disposal (Waste Control Specialists). The work of the strategic partners will be under the oversight of the NorthStar NDC's decontamination and decommissioning (D&D) Operations Manager.

Membership Interest Purchase and Sale Agreement

According to the license transfer application, NorthStar Decommissioning Holdings, LLC, proposes to acquire 100% of the membership interests in ENVY pursuant to the terms of the Membership Interest Purchase and Sale Agreement (MIPA) executed by ENVY and NorthStar; a copy of the MIPA is provided in a separately bound Addendum as Enclosure 1P to the February 9, 2017 application. Enclosure 1P contains confidential commercial and financial information that is being withheld from public disclosure pursuant to 10 CFR 2.390. A redacted, non-proprietary version of the MIPA, is provided as Enclosure 1 of the application (ADAMS Accession No. ML17045A140).

As such, indirect control of ENVY will be transferred from ENVY's current Entergy parent company, Entergy Nuclear Vermont Investment Co., LLC (ENVIC), to NorthStar Decommissioning Holdings, LLC, and its parents NorthStar, LVI, and Holdings. According to the Applicants, ENVY will immediately change its name to NorthStar VY, but the same legal entity will continue to exist before and after the proposed transfer. In addition, NorthStar NDC, a wholly owned subsidiary of NorthStar, will assume licensed responsibility for VY through a direct transfer of ENOI's licensed responsibility for decommissioning activities at VY to NorthStar NDC. NorthStar VY will enter into an operating agreement with NorthStar NDC, which provides for NorthStar NDC to act as NorthStar VY's agent and for NorthStar VY to pay NorthStar NDC's costs of operation, including all decommissioning costs. A simplified organization chart reflecting the current VY licensees and their owners is provided as Figure 1 of the application. The planned ownership following the proposed transfers is depicted in Figure 2 of the application.

Unlike corporations that have stockholders, a limited liability company (LLC) has membership interests. The membership interests in ENVY are currently held by ENVIC, an indirectly, whollyowned subsidiary of Entergy Corporation. To facilitate the sale of ENVY, one day before the closing, ENVIC will transfer its membership interests in ENVY to a newly created ENVIC subsidiary, Vermont Yankee Asset Retirement Management, LLC (VYARM), which will then sell and transfer its membership interests to NorthStar Decommissioning Holdings, LLC. VYARM will hold the membership interests in ENVY for no more than 24 hours. As stated by the Applicants, this intermediate transfer step is a commercially integral part of the transfer of ownership in ENVY to NorthStar NDC. Therefore, considering the 24-hour limit for all intermediate transfer steps, the NRC staff finds it appropriate to consider the entire transaction, including the intermediate steps as a single license transfer application.

NorthStar Decommissioning Holdings, LLC, with NorthStar Group Holdings, LLC, and Entergy Nuclear Vermont Investment Company, LLC, with ENVY have entered into the MIPA that includes the direct and indirect transfers of control of ENOI's and ENVY's renewed facility operating license as well as the general license for the VY ISFSI. The transfers are for the licensed possession, maintenance, and decommissioning authorities so as to implement expedited decontamination, dismantlement, and decommissioning of the VY facilities (other than the ISFSI) as soon as reasonably practicable after the closing of the purchase and sale (Closing).

The MIPA requires NorthStar NDC and NorthStar VY to release all portions of the VY Site, other than the ISFSI, pursuant to 10 CFR 50.83, and to dispose of all radioactive waste, other than spent nuclear fuel, in accordance with all applicable laws as promptly as reasonably practicable

after closing the transaction. In addition, the MIPA also calls for NorthStar NDC and NorthStar VY to complete decommissioning with respect to the ISFSI and to terminate the NRC license as promptly as reasonably practicable after the U.S. Department of Energy accepts the spent nuclear fuel.

Under the terms of the MIPA, NorthStar NDC and NorthStar VY will become the NRC licensees responsible for all activities under the VY license. NorthStar NDC will perform the VY decommissioning, dismantlement, and decontamination work by relying on the experience of its parent, NorthStar Group Services Inc., as a general decommissioning contractor on commercial and industrial projects while performing decommissioning and decontamination work, including on asbestos projects, and through contracts with its strategic partners, AREVA, Burns & McDonnell, and WCS.

Revised PSDAR

In support of its license transfer application, NorthStar submitted to the NRC a revised Post-Shutdown Decommissioning Activities Report (revised PSDAR) for VY on April 6, 2017 (ADAMS Accession No. ML17096A394), to notify the NRC of changes in the actions and schedules previously described in the 2014 PSDAR. The revised PSDAR updates the information previously provided by ENOI, as required by 10 CFR 50.82(a)(7). The revised PSDAR is intended to apply based and contingent upon NRC approval of this license transfer, and ENVY being acquired by NorthStar, pursuant to the terms of the MIPA.

Vermont Public Utility Commission Certificate of Public Good and Settlement Agreement

Under Vermont state law, the Vermont Public Utility Commission (PUC) must also approve the transaction and issue an amended Certificate of Public Good (CPG). In addition to radiological decommissioning of the site to NRC decommissioning standards, NorthStar VY and NorthStar NDC will be required to restore the site in accordance with standards approved by the Vermont PUC in the amended CPG.

On March 2, 2018 (ADAMS Accession No. ML18066A735), the Applicants signed a settlement agreement and Memorandum of Understanding (MOU) with State of Vermont agencies and other interested parties on terms for approval of the proposed sale that, if the Applicants meet certain terms and conditions for the transfer of ownership of VY, will promote the general good of the State. In addition to NRC approval of the license transfer, the Vermont PUC approval of the MOU and a PUC order approving the proposed transaction are pre-conditions to closing of the proposed sale transaction between Entergy and NorthStar.

3.0 REGULATORY EVALUATION

As described in the application, the proposed transaction constitutes a direct and indirect transfer of ownership interest of VY, which requires prior NRC approval. For direct transfers of control of a license, the NRC must find that the direct transfer of the license is otherwise consistent with applicable provisions of law, NRC regulations, and orders issued by the Commission.

The request for approval of the direct and indirect transfer of the VY license as described above, and as discussed in this safety evaluation, is made pursuant to 10 CFR 50.80(a), which states that:

No license for a production or utilization facility (including, but not limited to, permits under this part and part 52 of this chapter, and licenses under parts 50 and 52 of this chapter), or any right thereunder, shall be transferred, assigned, or in any manner disposed of, either voluntarily or involuntarily, directly or indirectly, through transfer of control of the license to any person, unless the Commission gives its consent in writing.

In addition, the regulations in 10 CFR 50.80(b) and (c) apply. The regulation at 10 CFR 50.80(b) states, in part:

- (1) An application for transfer of a license shall include:
- (i) For a construction permit or operating license under this part, as much of the information described in 50.33 and 50.34 of this part with respect to the identity and technical and financial qualifications of the proposed transferee as would be required by those sections if the application were for an initial license.

Section 50.80(c) of 10 CFR states, in part, that:

...the Commission will approve an application for the transfer of a license, if the Commission determines: (1) That the proposed transferee is qualified to be the holder of the license; and (2) That transfer of the license is otherwise consistent with applicable provisions of law, regulations, and orders issued by the Commission pursuant thereto.

Section 50.33(f) of 10 CFR states, in part, that:

Except for an electric utility applicant for a license to operate a utilization facility of the type described in § 50.21(b) or § 50.22, [each application shall state] information sufficient to demonstrate to the Commission the financial qualification of the applicant to carry out, in accordance with regulations in this chapter, the activities for which the permit or license is sought.

The NRC staff applies guidance in NUREG-1577, Revision 1, "Standard Review Plan on Power Reactor Licensee Financial Qualifications and Decommissioning Funding Assurance" (ADAMS Accession No. ML013330264), issued February 1999, to evaluate the financial qualifications of applicants to carry out the activities for which the permit or license is sought.

Section 50.54(bb) of 10 CFR requires, in part, a licensee to submit, for NRC review and preliminary approval, the program by which the licensee intends to manage and provide funding for the management of all irradiated fuel at the reactor following permanent cessation of operation of the reactor until title to the irradiated fuel and possession of the fuel is transferred to the Secretary of Energy for its ultimate disposal in a repository.

In accordance with 10 CFR 50.2, "Decommission", means to remove a facility or site safely from service and reduce residual radioactivity to a level that permits (1) release of the property for unrestricted use and termination of the license, or (2) release of the property under restricted conditions and termination of the license.

Section 50.33(k)(1) of 10 CFR requires that applicants provide information, in the form of a report, as described in 10 CFR 50.75, "Reporting and recordkeeping for decommissioning planning," indicating how reasonable assurance will be provided that funds will be available to decommission the facility.

Section 50.75 of 10 CFR establishes requirements for indicating to NRC how a licensee will provide reasonable assurance that funds will be available for the decommissioning process. Section 50.75(b) requires that each power reactor applicant for an operating license submit a decommissioning report, as required by Section 50.33(k). Section 50.75(e) provides the methods acceptable to the NRC for providing decommissioning financial assurance. Finally, Section 50.75(h) provides additional requirements regarding the management of decommissioning trust funds.

Section 50.82(a)(8)(i) of 10 CFR states that decommissioning trust funds may be used by licensees if:

- (A) The withdrawals are for expenses for legitimate decommissioning activities consistent with the definition of decommissioning in § 50.2;
- (B) The expenditure would not reduce the value of the decommissioning trust below an amount necessary to place and maintain the reactor in a safe storage condition if unforeseen conditions or expenses arise and;
- (C) The withdrawals would not inhibit the ability of the licensee to complete funding of any shortfalls in the decommissioning trust needed to ensure the availability of funds to ultimately release the site and terminate the license.

Section 50.82(a)(8)(v) of 10 CFR requires power reactor licensees that have permanently ceased operations to provide to the NRC annually, by March 31, a decommissioning financial assurance status report.

Section 50.82(a)(8)(vii) of 10 CFR provides, in part, for the licensee's annual submittal to the NRC, a report on the status of its funding for managing irradiated fuel.

Section 50.34(a)(9) of 10 CFR requires applicants to provide:

The technical qualifications of the applicant to engage in the proposed activities in accordance with the regulations in this chapter.

The NRC staff applies guidance in NUREG-0800, "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants: LWR Edition," Chapter 13, "Conduct of Operations," Revision 6 of Section 13.1.1, "Management and Technical Support Organization" (ADAMS Accession No. ML15005A449), for the review of the corporate-level management and technical support organization of applicants. Guidance in Revision 7 of Section 13.1.2 and

13.1.3, "Operating Organization" (ADAMS Accession No. ML15007A296), is applied for the review of the operating organization of applicants, including the structure, functions, and responsibilities of the onsite organization established to safely operate and maintain the facility.

In addressing foreign ownership, control, or domination (FOCD) issues, Section 103d of the AEA provides, in relevant part that:

No license may be issued to...any corporation or other entity if the Commission knows or has reason to believe it is owned, controlled, or dominated by an alien, a foreign corporation, or a foreign government.

The NRC's regulation in 10 CFR 50.38 is the regulatory provision that implements the FOCD provision of the AEA. Section 50.38 of 10 CFR provides, in part, that:

[A]ny corporation, or other entity which the Commission knows or has reason to believe is owned, controlled, or dominated by an alien, a foreign corporation, or a foreign government, shall be ineligible to apply for and obtain a license.

The NRC staff evaluates license transfer applications in a manner consistent with the guidance provided in the "Final Standard Review Plan on Foreign Ownership, Control, or Domination," as published in the *Federal Register* on September 28, 1999 (64 FR 52357), to determine whether the applicant is owned, controlled, or dominated by an alien, a foreign corporation, or a foreign government.

The NRC staff also reviews information that relates to nuclear onsite property damage insurance requirements under 10 CFR 50.54(w) and the Price-Anderson insurance and indemnity requirements under Section 170 of the AEA and 10 CFR part 140, "Financial Protection Requirements and Indemnity Agreements."

With respect to the transfer of control of a license for an ISFSI, 10 CFR 72.50(a) states that:

No license or any part included in a license issued under this part for an ISFSI or MRS [Monitored Retrievable Storage Installation] shall be transferred, assigned, or in any manner disposed of, either voluntarily or involuntarily, directly or indirectly, through transfer of control of the license to any person, unless the Commission gives its consent in writing.

Finally, with respect to the requested conforming license amendment, 10 CFR 50.90 states, in part, whenever a holder of a license, including a construction permit and operating license under this part, desires to amend the license or permit, an application for an amendment must be filed with the Commission fully describing the changes desired and following as far as applicable the form prescribed for original applications. Pursuant to 10 CFR 2.1315, where administrative license amendments are necessary to reflect an approved license transfer, such amendments will be included in the order that approves the license transfer.

4.0 FINANCIAL EVALUATION

4.1 Financial Qualifications

As explained above, on January 12, 2015, pursuant to 10 CFR 50.82(a)(1)(i) and (a)(1)(ii), ENOI certified to the NRC that it had permanently ceased operations at VY on December 29, 2014, and that all fuel had been permanently removed from the reactor vessel and placed in the spent fuel pool. Since NorthStar NDC (proposed licensed operator for decommissioning) will not be authorized under the facility license to operate or load fuel in the reactor pursuant to the terms of 10 CFR 50.82(a)(2), NorthStar NDC will not conduct the reactor operations contemplated by the financial qualifications provisions of 10 CFR 50.33(f)(2), but rather all of its licensed activities will involve possession of radioactive material in connection with maintaining the safe condition of the plant, radiological decommissioning of the VY site (including the ISFSI), license termination, and operational responsibilities associated with spent fuel management. Thus, following the proposed direct and indirect transfers, NorthStar VY (the proposed licensed owner) will maintain the existing Nuclear Decommissioning Trust (NDT) and will be responsible for funding all the expenses associated with radiological decommissioning and operational costs for spent fuel management. Accordingly, as described in this safety evaluation, the staff's review of the Applicants' financial qualifications and decommissioning financial assurance pursuant to 10 CFR 50.33(f), 10 CFR 50.33(k)(1), 10 CFR 50.75, and 10 CFR 50.82(a), includes an analysis of the projected costs for decommissioning the facility and terminating the license, and managing irradiated fuel until the U.S. Department of Energy takes title and possession of the fuel.

For a facility in decommissioning, a licensee is required to execute financial plans for spent fuel management under 10 CFR 50.54(bb) and report annually on the status of funding dedicated towards radiological decommissioning and spent fuel management under 10 CFR 50.82(a)(8)(v) to (vii).

4.2 Radiological Decommissioning

Pursuant to NRC regulations in 10 CFR 50.2, "Decommission", means to remove a facility or site safely from service and reduce residual radioactivity to a level that permits: (1) release of the property for unrestricted use and termination of the license, or (2) release of the property under restricted conditions and termination of the license. The existing NDT for VY was created in compliance to 10 CFR 50.75, and the funds within the trust were collected while the facility was operating. As described below, the NRC staff's review of decommissioning financial assurance assesses whether the Applicants have provided reasonable assurance of obtaining the funds necessary to cover estimated costs for radiological decommissioning of VY and its ISFSI.

Separate from this application, by letter dated April 6, 2017, the Applicants provided a revised PSDAR¹ in support of the proposed direct and indirect license transfers. Specifically, the revised PSDAR contains:

¹ The staff notes that the NRC does not review the PSDAR for approval; however, for the purpose of this license transfer request, the staff relied on the revised PSDAR as a reference for the Applicant's decommissioning plans.

- 1. A description of the planned decommissioning activities along with a schedule for their accomplishment;
- A discussion that provides the reasons for concluding that the environmental impacts associated with site-specific decommissioning activities will be bounded by previously issued environmental impact statements;
- 3. A site-specific decommissioning cost estimate, including the projected irradiated fuel management costs, license termination costs, and site restoration costs; and
- 4. A settlement agreement between ENOI, ENVY (NorthStar VY after its acquisition by NorthStar), and agencies of the State of Vermont.

The 2014 PSDAR, as originally submitted by ENOI and ENVY reflected the current decommissioning plan of VY to be completed by ENOI and ENVY within a 60-year period using the SAFSTOR method. The revised PSDAR reflects NorthStar's plan to complete the immediate and accelerated decommissioning of the non-ISFSI portions of the VY site within a 7-year period after the proposed transfer is approved. The revised PSDAR also contains the most recent decommissioning cost estimate and spent fuel management plans pursuant to 10 CFR 50.82, "Termination of License."

Under the revised PSDAR, as compared to ENOI and ENVY's 2014 PSDAR, the proposed change in decommissioning method from SAFSTOR to DECON results in an overall 23-year acceleration of the site closure from 2075 to approximately 2052, and a site-specific decommissioning cost estimate that reflects an approximate license termination cost reduction in an amount of \$200 million, and an increase in spent fuel management costs of approximately \$61 million.

In its original request, by letter dated February 9, 2017, the Applicants provided financial projections for the duration of the VY decommissioning project, including the amount of the decommissioning trust funds in the NDT (~\$562 million as of December 31, 2016), a financial Support Agreement in the amount of \$125 million, estimated costs for the radiological decommissioning of VY (~\$495 million), spent fuel management costs to be paid for using the NDT (up to \$20 million at any one time repaid by DOE reimbursements), and estimated costs for decommissioning the ISFSI (~\$3.5 million).

By letter dated November 3, 2017 (ADAMS Accession Number ML17313A431), the staff requested additional information regarding the Applicants' reliance on use of the NDT for spent fuel management. In response, by letter dated December 4, 2017 (ADAMS Accession Number ML17339A896), the Applicants explained that there were material changes in circumstances from the analysis upon which the original exemption was based, but believed that the previous exemption granted to Entergy for use of the NDT for spent fuel management expenses should be transferred to them.

Based on its review of the information supplied to date in the original application and supplemental information provided in response to these RAIs, the NRC staff was unable to find that the funding mechanisms (use of the NDT for spent fuel management) proposed by the Applicants were adequate to provide reasonable assurance that sufficient funds would be available for the decommissioning of the VY facility and for the management of spent fuel. Specifically, with respect to sufficiency of the NDT, the staff was concerned that the previous showing by Entergy of special circumstances in granting of the exemption to use the NDT for spent fuel management did not appear to apply to NorthStar, in that a 60-year period would not

be available for funds in the NDT to grow to a level sufficient to pay for both projected decommissioning costs and spent fuel management. Therefore, by letter dated April 5, 2018 (ADAMS Accession Number ML18045A817), the staff requested additional information on the applicability of the exemption granted to Entergy to use the NDT for spent fuel management.

In response, by letters dated May 21, 2018 (ADAMS Accession Number ML18143B484) and June 28, 2018 (ADAMS Accession Number ML18183A220), the Applicants provided an analysis of the applicability of the current Entergy exemption to use the NDT for spent fuel management concluding that the special circumstances of the exemption apply, because NorthStar VY has committed to limiting any access to funds for purposes of spent fuel management to \$20 million on a "revolving" basis and to return recoveries for ISFSI expenses from DOE reimbursements to the trust fund. In addition, NorthStar claimed that precluding access to \$20 million in excess funds would create an unnecessary financial burden without any corresponding safety benefit. Nevertheless, on May 25, 2018, NorthStar submitted an exemption request to use up to \$20 million from the NDT on a revolving basis for spent fuel management activities (ADAMS Accession Number ML18150A315). The staff's analysis of this regulatory exemption was performed separate from this safety evaluation and, on October 11, 2018, the NRC staff approved the exemption request (ADAMS Accession No. ML18274A246). This exemption is being issued simultaneously with this license transfer, and will only apply to NorthStar VY and NorthStar NDC following consummation of the license transfer transaction and NRC issuance of the conforming amendment reflecting this license transfer. In its review of the exemption, the staff concluded that reasonable assurance exists that adequate funds will be available in the NDT to complete radiological decommissioning, license termination, and the spent fuel management activities within the scope of this exemption request. The staff's findings from its evaluation of the exemption were considered in its analysis of this proposed license transfer and supports the staff's conclusion that the Applicants' use of the NDT in a limited capacity (\$20 million on a revolving basis), as projected to be reimbursed by funds recovered from DOE litigation, will not have a negative impact on the adequacy of funding for radiological decommissioning.

On March 2, 2018, the Applicants, certain State of Vermont agencies, and others entered into a settlement agreement concerning the proposed purchase and sale transaction of VY from Entergy to NorthStar (ADAMS Accession No. ML18066A044). The staff noted that the settlement agreement included language that appeared to conflict with NRC regulations on the appropriate use of the NDT in that the settlement agreement established an escrow account that may be used to fund completion of decommissioning and/or site restoration activities. Specifically, the source of funding for this account was unclear, and the settlement agreement language suggested, in part, that funds withdrawn from the NDT for decommissioning expenses could be deposited into the escrow account which would be prohibited by NRC regulations in 10 CFR 50.82(a)(8)(i)(A) which requires that funds in the NDT be used only for activities consistent with the definition of decommissioning in 10 CFR 50.2. Therefore, by letter dated April 5, 2018, the staff requested additional information on the impact of the applicant's settlement agreement with the State and others on its ability to meet NRC's financial qualification requirements.

As additional financial assurance in support of the settlement agreement, the Applicant's RAI response dated May 21, 2018, notes that the Applicants will deposit \$30 million into an escrow account that will be funded with \$20 million from Entergy and \$10 million from NorthStar. The Applicants stated that funds contributed to, and accumulated in, this escrow account will be available for radiological decommissioning and site restoration, as needed.

The staff further notes that after the initial funding of the escrow account at closing, NorthStar NDC and its subcontractors will immediately conduct decommissioning activities. According to the Applicants RAI response, NorthStar NDC will submit invoices for that decommissioning work to NorthStar VY, which will withdraw funds from the NDT to pay for these invoices. After NorthStar VY has withdrawn the first \$100 million from the NDT, however, it will not immediately pay NorthStar NDC 100% of the amounts invoiced and withdrawn from the NDT, but rather will withhold 10% of these amounts and deposit the withheld 10%, up to \$25 million, into the escrow account. NorthStar NDC has committed to defer receipt of payment (up to \$25 million) for the decommissioning work that it and its subcontractors perform. Based on its evaluation of the RAI response, the NRC staff finds that funds withdrawn from the NDT will only be used to pay for legitimate decommissioning expenses. Further, the staff finds that the terms and conditions of the settlement agreement do not have any adverse effect on the financial information submitted by the Applicants to the NRC regarding the license transfer application because the settlement agreement establishes additional and enhanced funding mechanisms that do not rely on funds from the NDT to assure that site restoration beyond what is required by the NRC will be completed as planned.

According to the Applicant's RAI response dated May 21, 2018, the latest estimated cost to decommission VY was approximately \$495 million (2016 dollars), plus an additional approximately \$3.5 million for ISFSI decommissioning. The latest estimated opening NDT balance in 2019 (the estimated start date of decommissioning) will be approximately \$513 million. However, according to one scenario in its June 28, 2018 supplemental RAI response where NorthStar trust fund income taxes are paid prior to closing of the proposed transfer, the estimated opening NDT balance could be approximately \$488 million without considering future trust contributions and growth. Therefore, the staff used this conservative estimate of the opening NDT balance to perform its independent cash flow analysis provided in Attachment 1 to this safety evaluation report.

With respect to the adequacy of funding for the radiological decommissioning of VY and the VY ISFSI, the NRC staff reviewed the application and RAI responses, including Applicant's proposed site-specific decommissioning cost estimate for the facility, planned decommissioning activities, use of the NDT for spent fuel management, the most conservative opening NDT balance in 2019 (\$488 million), and projected trust growth. In its analysis, the staff considered the NDT opening balance of \$488 million, plus the \$30 million dollar escrow account described above, the financial Support Agreement in the amount of \$140 million, the \$20 million revolving credit from DOE reimbursements and/or the performance bonds, and a 2% real-rate of return on annual balances. These considerations were included in the staff's independent cash flow analysis is contained in Attachment 1 to this safety evaluation. Based on its evaluation as shown in its cash flow analysis, the NRC staff finds that the funds in the NDT are expected to be available and sufficient to cover the estimated costs for the radiological decommissioning of the facility (including the ISFSI), and spent fuel management to the extent as allowed permitted by the approval of the regulatory exemption (\$20 million on a revolving basis).

Conclusion

Based on this review, in consideration of the above analysis and the staff's independent cash flow analysis in Attachment 1 of this safety evaluation, the NRC staff finds that the Applicants have provided reasonable assurance of obtaining the funds necessary to cover estimated costs

for decommissioning VY and its ISFSI in accordance with the requirements of 10 CFR 50.33(f), 10 CFR 50.33(k)(1), 10 CFR 50.75, and 10 CFR 50.82(a).

4.3 Spent Fuel Management

After the closing of the proposed transaction, NorthStar VY will retain ownership and title to all spent nuclear fuel and all rights and obligations under the Standard Spent Fuel Disposal Contract. The Nuclear Decommissioning Trust is to be retained by NorthStar Vermont Yankee, LLC. NorthStar VY will also be responsible for ISFSI decommissioning.

In its license transfer application, by letter dated February 9, 2017, the Applicants provided their funding plan for spent fuel management costs, which included using excess decommissioning trust funds for spent fuel management up to \$20 million on a revolving basis, reliance on DOE reimbursements for spent fuel management costs to be repaid to the NDT, and a financial Support Agreement in the amount of \$125 million. The NRC staff's review of the Applicants' funding plan for spent fuel management costs is discussed below.

Exemption to use NDT for Spent Fuel Management

The Applicants proposed to use excess decommissioning trust funds for spent fuel management relying on the regulatory exemption granted to Entergy in 2015. As discussed in Section 4.2 of this evaluation, the staff was concerned that the previous showing by Entergy of special circumstances in granting of the exemption to use the NDT for spent fuel management did not apply to NorthStar, because Entergy's 60-year SAFSTOR period would not be available to NorthStar for funds in the NDT to grow to a level sufficient to pay for both projected decommissioning costs and spent fuel management. As explained above, this issue was discussed in the RAIs dated November 3, 2017, and April 5, 2018, and the applicant's responses dated December 4, 2017, and May 21, 2018.

By letter dated May 25, 2018, in support of the license transfer request, NorthStar submitted a request for an exemption to 10 CFR 50.82(a)(8)(i)(A) to use up to \$20 million of the VY trust (on a revolving basis) to pay for spent fuel management expenses. As mentioned above, the staff's analysis of this regulatory exemption was performed separate from this safety evaluation and, on October 11, 2018, the NRC staff approved the exemption request (ADAMS Accession No. ML18274A246). This exemption is being issued simultaneously with this license transfer, and will only apply to NorthStar VY and NorthStar NDC following consummation of the license transfer transaction and NRC issuance of the conforming amendment reflecting this license transfer. The staff's findings from its evaluation of the exemption were considered in its analysis of the proposed license transfer and supports the conclusion that use of the NDT in a limited capacity (\$20 million on a revolving basis), as projected to be reimbursed by funds recovered from DOE litigation, will not have a negative impact on the adequacy of funding for radiological decommissioning. These findings are supported by the staff's independent cash flow analysis.

Based on its evaluation, the NRC staff finds that the use of \$20 million from the NDT for spent fuel management, on a revolving basis, and as projected to be reimbursed by funds recovered from DOE litigation, provides a reasonable source of funding to cover the costs associated with spent fuel management because such use will not have a negative impact on the adequacy of funding for radiological decommissioning, as confirmed by the regulatory exemption described above.

DOE Reimbursements

Based on its review of the license transfer application, the NRC staff also had questions regarding the ability of the Applicants' to rely on DOE reimbursements for spent fuel management costs. Therefore, by letter dated November 3, 2017, the staff requested additional information regarding the reliability of the recovery of claims from DOE to reimburse the NDT.

In response, by letter dated December 4, 2017 (ADAMS Accession Number ML17339A896), NorthStar provided further justification for why they believed that DOE reimbursements for spent fuel management expenses should be considered a reliable source of funding (to reimburse the NDT), including submittal of an Inspector General Financial Audit on DOE's Nuclear Waste Fund.

Based on its review of the information supplied to date in the original application and supplemental information provided in response to these RAIs, the NRC staff was unable to find that the DOE reimbursements provided a reasonable source of additional funding to supplement estimated costs for spent fuel management at the site. Specifically, Entergy did not yet appear to have filed a claim for DOE reimbursements that could be relied upon for spent fuel management costs after the requested license transfer, nor show that a favorable judgment has been obtained for recovery of those costs. In addition, NorthStar would not have a settlement agreement in place with DOE for the recovery of spent fuel management costs immediately following the proposed transfer. Therefore, by letter dated April 5, 2018, the staff requested additional information on NorthStar's plans for the recovery of claims from DOE. According to the Applicant's RAI response dated May 21, 2018, ENVY has successfully filed two rounds of claims for DOE reimbursements receiving approximately \$41 million (April 11, 2013) and \$19 million (June 27, 2016). As stated in the application, NorthStar is expecting to receive its own DOE reimbursements to recover costs for spent fuel management.

In the RAI response dated May 21, 2018, the Applicants also indicated that the DOE reimbursements for spent fuel management expenses require a licensee to litigate for DOE reimbursements, and that no such litigation has been initiated since the last DOE reimbursement. However, ENVY has current contractual rights under the Standard Contract and believes they are entitled to compensation for damages that continue to incur until the time of the license transfers. The Applicants further stated that given the governing law with respect to government contracts, costs must first be incurred before ENVY can make a claim for damages. According to the Applicants, although ENVY could have filed claims more frequently, ENVY has elected to allow damages to accumulate over several years before filing a claim in order to avoid excessive litigation-related costs. The staff notes that under a Vermont Settlement Agreement, ENVY has committed to file a "Round 3" claim no later than 30 days after the completion of the dry fuel storage campaign. ENVY anticipates it will seek, among other costs, approximately \$145 million in damages for the dry fuel storage campaign and approximately \$30 million for ISFSI operating and maintenance (O&M) costs from 2014 through the date of filing the claim. Additionally, an expected "Round 4" claim would be filed between 2020 and 2023 to recover ISFSI O&M for the period from the end of the Round 3 claim through the time of Round 4 claim. According to the Applicants, filing lawsuits more frequently would require time and effort, as well as legal costs that can be avoided by consolidating claims for several years into one lawsuit. NorthStar NDC proposes to follow much the same strategy to obtain DOE reimbursements for the VY spent fuel management expenses incurred upon obtaining the licenses.

As further assurance regarding its reliance on a future DOE settlement agreement, NorthStar VY proposed, in the May 21, 2018, RAI response, and agrees to the following license condition:

NorthStar VY shall obtain a performance bond if a Settlement Agreement with the U.S. Department of Energy (DOE), on DOE reimbursements for spent fuel management expenses is not entered into by January 1, 2022. The performance bond will be effective January 1, 2022, initially in the amount of \$4.3 million, and it will be renewed annually. This amount covers the annual amount of ISFSI operation and maintenance (O&M) costs projected for 2022-2024. If a settlement is not reached by January 1, 2024, this amount will be increased to \$9.3 million, which covers the annual amount of ISFSI O&M costs projected for years after 2024.

The staff notes that, in the May 21, 2018, RAI response, Attachment 2, "Response to Request for Additional Information," the Applicants provided as Enclosure 5, "Prequalification Letter," a prequalification letter from Aspen American Insurance Company and Everest Reinsurance Company, to demonstrate NorthStar's ability to obtain the \$4.3 million and \$9.3 million performance bonds, as needed, for spent fuel management.²

With this safety evaluation, in this circumstance, the NRC staff finds that the assumption of DOE reimbursement is a reasonable source of additional funding. In recent years DOE reimbursements have become more consistent and predictable despite the longevity of the litigation process and complexity of DOE standard settlement agreements. Moreover, ENVY (to be renamed NorthStar VY), has successfully filed two rounds of claims for DOE reimbursements. Finally, as further assurance of its reliance on a future DOE settlement agreement, NorthStar VY agreed to a license condition committing to obtain a performance bond to cover spent fuel management costs if a settlement agreement has not been reached in timeframe anticipated. Therefore, the NRC staff concludes that DOE reimbursements, as proposed by the Applicants, provide a reasonable source of funds to cover costs associated with the management of spent fuel for this financial qualifications review.

Support Agreement

Based on its review of the license transfer application, the NRC staff questioned the adequacy of the Applicants' financial Support Agreement amount of \$125 million. Therefore, by letter dated November 3, 2017 (ADAMS Accession Number ML17313A431), the staff requested additional information regarding the adequacy of the proposed financial Support Agreement from NorthStar for decommissioning funding and spent fuel management costs.

In response, by letter dated December 4, 2017 (ADAMS Accession Number ML17339A896), NorthStar provided further justification for the adequacy of its financial Support Agreement. By letter dated December 22, 2017 (ADAMS Accession Number ML18009A459), the Applicants supplemented their response to NRC's requests for additional information (RAIs) dated

² According to the Applicants, NorthStar expects to use \$20 million from the VY NDT, which would cover the cumulative ISFSI O&M costs through the end of 2021 and beginning of 2022. Thus, the Applicants state that the performance bond would commence in the first year that funds would be required from another source, and the performance bond would continue annually and be increased to cover the estimated costs until a DOE settlement agreement is formally executed.

November 3, 2017. In its response, NorthStar informed NRC that it had determined that the Support Agreement amount needed to be increased from \$125 million to \$140 million.

Based on its review of the information supplied to date in the original application and supplemental information provided in response to these RAIs, the NRC staff was unable to find that the financial Support Agreement proposed by the Applicants adequate to ensure that sufficient funds would be available for the management of spent fuel. Specifically, it was unclear to staff how the NRC could rely on the financial Support Agreement as "an additional source of available funding," to operate and maintain the ISFSI until DOE takes title and possession of the fuel, when the "No Guarantee" term of the Support Agreement specifically stated that the agreement was not a guarantee and the Support Agreement did not constitute a parent company guarantee as described in NRC regulations.

Therefore, by letter dated April 5, 2018 (ADAMS Accession Number ML18045A817), the staff requested additional information on the ability of the proposed financial Support Agreement to provide an available source of funding in the absence of a guarantee. In response, by letters dated May 21, 2018 (ADAMS Accession Number ML18143B484) and June 28, 2018 (ADAMS Accession Number ML18183A220), the Applicants provided clarifying language for the proposed financial Support Agreement (of \$140 million) and supporting financial qualification information that clarifies the intent of the Support Agreement. Specifically, the Applicants made several revisions to the proposed Support Agreement, including the addition of clarifying language that the Support Agreement, "may, however, be relied upon by the NRC as a parental guarantee in determining the financial qualifications of the Subsidiary to hold the NRC License, including funding the costs associated with the spent fuel management program"

As further assurance that NorthStar VY and NorthStar NDC will continue to have an adequate source of funds for spent fuel management costs, the Applicants proposed the following license condition:

NorthStar Vermont Yankee, LLC and NorthStar Nuclear Decommissioning Company, LLC shall take no action to cause NorthStar Group Services, Inc., to void, cancel, or modify the \$140 million Support agreement to provide funding for Vermont Yankee as represented in the application without prior written consent of the Director of the Office of Nuclear Reactor Regulation.

Based on the staff's evaluation of the application, RAI responses, and proposed license condition, the staff's concerns related to the support agreement have been resolved because the Applicants provided clarifying revised language for the proposed financial Support Agreement, supporting financial qualification information, and clarification that the intent of the Support Agreement is to provide a reasonable source of funding for spent fuel management. Therefore, based on the original application, as supplemented by the RAI responses, the NRC staff finds that the \$140 million financial Support Agreement provides a reasonable source of funding to cover the estimated costs associated with spent fuel management.

Conclusion

As the application and RAI responses pertained to the funding for spent fuel management, the NRC staff reviewed the Applicant's proposed site-specific decommissioning cost estimate for the facility, planned decommissioning activities, use of the NDT for spent fuel management (~\$288 million), the most conservative opening NDT balance in 2019 (\$488 million), and projected trust growth. In its analysis for spent fuel management, the staff considered the NDT opening balance of \$488 million, the financial Support Agreement in the amount of \$140 million, the \$20 million revolving credit from DOE reimbursements and/or the performance bonds, and a 2% real-rate of return on annual balances. Based on its evaluation, the NRC staff finds that these funds are expected to be available to pay for the radiological decommissioning of the facility (including the ISFSI), and spent fuel management as allowed by the approval of the regulatory exemption. The staff's independent cash flow analysis is contained in Attachment 1 to this safety evaluation report.

Based on its review, in consideration of the above analysis describing the Applicants' financial plans for managing spent fuel, the NRC staff finds that the Applicants have reasonable assurance of obtaining the funds necessary to cover estimated costs for irradiated fuel management in accordance with 10 CFR 50.33(f) and 10 CFR 50.54(bb).

4.4 Financial Qualifications Conclusion

As described above, the NRC staff reviewed the application and RAI responses in its evaluation of the Applicants' financial qualifications, funding for the decommissioning of VY and the VY ISFSI, and funding for irradiated fuel management at VY. Based on its evaluation as described above and shown in its cash flow analysis, the NRC staff concludes that the funds in the NDT are expected to be available and sufficient to cover the estimated costs for the radiological decommissioning of the facility (including the ISFSI), and spent fuel management to the extent allowed by the approval of the regulatory exemption (\$20 million on a revolving basis). Therefore, the NRC staff concludes that the Applicants have provided reasonable assurance of obtaining the funds necessary to cover estimated costs for decommissioning VY and its ISFSI in accordance with the requirements of 10 CFR 50.33(f), 10 CFR 50.33(k)(1), 10 CFR 50.75, and 10 CFR 50.82(a).

In addition, based on its evaluation above of the Applicants' funding plans for managing spent fuel, including exemption to use NDT for Spent Fuel Management, the NorthStar \$140 million financial Support Agreement, and the projected DOE reimbursements and/or performance bonds, as supported by the staff's independent cash flow analysis, the NRC staff concludes that the Applicants have reasonable assurance of obtaining the funds necessary to cover estimated costs for spent fuel management in accordance with the requirements of 10 CFR 50.33(f), and 10 CFR 50.54(bb).

Accordingly, in light of the foregoing evaluation, the NRC staff finds that NorthStar VY and NorthStar NDC are financially qualified to hold the VY License No. DPR-28 as proposed.

5.0 STANDARD CONTRACT FOR DISPOSAL OF SPENT NUCLEAR FUEL

Upon closing, NorthStar VY (who upon approval of the proposed indirect transfer of control, would be the same legal entity as ENVY but with a name change to NorthStar VY) will continue

to hold title to the spent nuclear fuel at VY and will continue to maintain the DOE Standard Contract, including all rights and obligations under that contract. This Standard Contract, No. DE-CR01-83NE44431 (DOE Standard Contract), was entered into by the previous owner, Vermont Yankee Nuclear Power Corporation, and the United States of America, represented by the DOE, to govern the disposal of spent nuclear fuel generated at VY. NorthStar NDC will have exclusive responsibility under the Licenses for the possession, maintenance, and decommissioning of VY, which includes responsibility for spent fuel management and the maintenance and security of the ISFSI.

6.0 ANTITRUST REVIEW

The AEA does not require or authorize antitrust reviews of post-operating license transfer applications (*Kansas Gas and Electric Co., et al* (Wolf Creek Generating Station, Unit 1), CLI-99-19, 49 NRC 441 (1999)). This application postdates the issuance of the operating license for the unit under consideration in this safety evaluation, and, therefore, no antitrust review is required or authorized.

7.0 FOREIGN OWNERSHIP, CONTROL, OR DOMINATION

Sections 103d and 104d of the AEA prohibit the NRC from issuing a license for a nuclear power plant to "any corporation or other entity if the Commission knows or has reason to believe it is owned, controlled, or dominated by an alien, a foreign corporation, or a foreign government." The NRC's regulation, 10 CFR 50.38, contains language to implement this prohibition.

According to the application, the direct license transfer application provides that NorthStar Group Holdings, LLC, and its subsidiaries, are not owned, controlled, or dominated by an alien, a foreign corporation, or a foreign government. NorthStar Group Holdings, LLC (Holdings) is privately held and controlled by its Board of Directors, all of whom are U.S. citizens. The Directors are appointed by the U.S. citizens who control the private equity funds that own Holdings. Each of the funds has multiple limited partnership investors, who are passive investors. The passive investors may include foreign investors, but Holdings is not aware of any foreign passive investor that holds more than 5 percent of the indirect ownership interests of Holdings. Moreover, the passive investors are not able to exercise control over either the private equity funds or Holdings. As such, there is no reason to believe that Holdings and the licensee entities will be owned, controlled or dominated by any foreign person. The current directors and executive officers of Holdings are U.S. citizens. Neither NorthStar NDC nor NorthStar VY are acting as an agent or representative of any other person in the proposed transfers of the licenses.

Based on this information, the NRC staff finds that the transfer of ownership and decommissioning authority of the facility to NorthStar NDC and NorthStar VY as proposed in the application does not raise any issues related to FOCD within the meaning of the AEA and NRC regulations. In light of the above and pursuant to Sections 103d and 104d of the AEA and 10 CFR 50.38, the NRC staff concludes that it does not know, or have reason to believe, that NorthStar VY will be owned, controlled, or dominated by an alien, a foreign corporation, or a foreign government, as a result of the direct or indirect license transfers.

8.0 NUCLEAR INSURANCE AND INDEMNITY

Pursuant to the requirements of the Price-Anderson Act (Section 170 of the AEA) and the NRC's implementing regulations in 10 CFR part 140, the current indemnity agreement must be modified to reflect that, after the proposed license transfers take effect, NorthStar VY (licensed owner) and NorthStar NDC (licensed operator for decommissioning) will be the sole licensees for VY for purposes of decommissioning the site. Consistent with NRC practice, the staff will require NorthStar VY and NorthStar NDC to provide and maintain onsite property insurance as specified in 10 CFR 50.54(w), "Conditions of licenses." NorthStar VY and NorthStar NDC are also required to provide evidence that they have obtained the appropriate amount of insurance in accordance with 10 CFR 140.11(a)(4), which will be effective concurrent with the date of the license transfers and amended indemnity agreement. Therefore, the order approving the transfer will be conditioned as follows:

"Prior to the closing of the license transfer, NorthStar NDC and NorthStar VY shall provide the Directors of NRC's Office of Nuclear Material Safety and Safeguards (NMSS) and Office of Nuclear Reactor Regulation (NRR) satisfactory documentary evidence that they have obtained the appropriate amount of insurance required of a licensee under 10 CFR 140.11(a)(4) and 10 CFR 50.54(w) of the Commission's regulations, consistent with the exemptions issued to VY on April 15, 2016."

Based on the above, the NRC staff concludes that the proposed license transfer, as conditioned, satisfies the nuclear insurance and indemnity requirements of 10 CFR part 140 and 10 CFR part 50.

9.0 TECHNICAL EVALUATION

9.1 Management and Technical Support Organization

NorthStar NDC and NorthStar VY

NorthStar NDC and NorthStar VY will be required to comply with all the requirements of the VY current NRC licenses and applicable NRC regulations upon transfer of the licenses. As stated in the license transfer application, NorthStar NDC and NorthStar VY will possess or have access to all records necessary for compliance with their obligations under the licenses and NRC requirements. NorthStar NDC will assume responsibility for compliance with the current licensing basis, including regulatory commitments that exist at closing. Any changes to the current licensing basis will be implemented under applicable regulatory requirements and practices.

NorthStar NDC will not be authorized under the facility license to operate or load fuel in the reactor, but rather will be licensed to possess radioactive material, decommission the VY facilities and site, operate the onsite ISFSI, and to terminate the license. Therefore, the application was evaluated against the requirements of 10 CFR 50.34(a)(9) and 10 CFR 50.80 that the applicant be technically qualified to engage in the proposed activities to possess radioactive material, decommission the VY facilities and site, operate the onsite ISFSI and to terminate the license. In support of that evaluation, the NRC staff reviewed the application in accordance with the acceptance criteria contained in NUREG-0800, Section 13.1.1, Revision 6

(ADAMS Accession No. ML15005A449) to determine the acceptability of the proposed corporate management and technical support organization, and ANSI/ANS-3.1-2014 (Section 4.3.3, "Radiation protection") that has been endorsed by NRC in Draft Regulatory Guide DG-1329, "Qualification and Training of Personnel for Nuclear Power Plants" (ADAMS Accession No. ML16091A267).

As stated in the application, NorthStar NDC employees and contractors will not be employed without being qualified for their positions in accordance with the applicable VY Technical Specifications and Quality Assurance Program Manual requirements. NorthStar NDC will also adopt the existing Quality Assurance (QA), emergency preparedness, and training procedures currently in place at VY and establish these functions at VY using NorthStar NDC project personnel that will include existing VY personnel, as well as contractors.

The Applicants state that the existing ISFSI operations employees of Entergy at VY and other key members of the existing ISFSI operations team are expected to become NorthStar NDC employees. Approximately 15 employees will be offered employment with NorthStar NDC. In addition, NorthStar NDC plans to retain the existing security subcontractor.

As stated in the application and/or supplemental information, NorthStar NDC will staff a Radiation Protection Manager who reports to the Director of Health Physics and Waste Operations. Specifically, the NorthStar Radiation Protection Manager at the Vermont Yankee Nuclear Station will be the current Entergy Radiation Protection Manager at VY, and he will become a NorthStar NDC employee upon the transaction closing. The Radiation Protection Manager will typically be responsible for the development and administration of programs and policies in the specific areas of radiation protection. The proposed Radiation Protection Manager has the education, training, and experience to fulfill the requirements of ANSI/ANS-3.1-2014 (Section 4.3.3, Radiation Protection) middle level manager and radiation protection manager.

An organization chart showing the planned project organization is provided in Enclosure 3 to the application (as modified by updated information in the May 21, 2018 RAI response). The organization provides for a single Vice President and Decommissioning Program Manager (PM) accountable for overall management, leadership, performance, nuclear safety, QA and employee safety. Managers reporting directly to the PM will have responsibilities for radiological safety, industrial health and safety, fuel storage, regulatory affairs, quality assurance, licensing, environmental, decontamination and decommissioning, engineering and operations, waste operations, project administration and financial services, and project controls. This organization will provide a nuclear management team with control over the decontamination and decommissioning operations.

Strategic Partner Experience and Expertise

According to the application, NorthStar NDC will draw on the experience of individuals from its parent company, NorthStar, and its strategic partners. NorthStar will contract with AREVA, Burns & McDonnell, and Waste Control Specialists as strategic partners to take advantage of their decommissioning experience. The experience and expertise of NorthStar and each of its strategic partners is briefly described below:

NorthStar Group Services, Inc. is a demolition and asbestos abatement company. As a demolition and abatement contractor, NorthStar has experience in demolition and decommissioning including participation in the decommissioning of four NRC regulated research reactors at the Universities of Buffalo, Arizona, Illinois and Washington. NorthStar has also been involved with decommissioning at the DOE's Hanford and Savannah River sites. The NorthStar organization will consist of existing staff from VY and current VY contractors, and staff from NorthStar and its strategic partners. An organization chart of the proposed management structure was provided in the application as Enclosure 3, along with the resumes of key management personnel.

AREVA, Inc. (now known as Orano USA LLC) is a nuclear fuel and services provider. AREVA provides experience in vessel and internals segmentation, with specific BWR experience. AREVA successfully disassembled the reactor pressure vessel at the Wuergassen nuclear power station in Germany. AREVA also has D&D experience at decommissioning of NRC regulated power reactors, including reactor pressure vessel and internals segmentation and packaging at Yankee Rowe, Maine Yankee, and the Connecticut Yankee nuclear power plants. In addition, AREVA has experience working on decommissioning projects in several countries in Europe as well as in Japan. Orano is expected to provide these types of services to the VY decommissioning project.

Burns & McDonnell is an engineering, architecture, construction, environmental and consulting firm that will provide engineering and license termination support to the project. Burns & McDonnell experience includes decommissioning of the NRC licensed Kerr McGee/TRONOX nuclear fuel plant in Oklahoma. In addition, through a joint venture, Burns & McDonnell has prepared the final status survey reports for various buildings at the NRC licensed Mallinckrodt, Inc.'s St. Louis, Missouri site.

Waste Control Specialists, LLC (WCS) is a State of Texas regulated low-level radioactive waste management, packaging, transportation and disposal company. WCS would provide on-site waste processing, management, packaging and loading, as well as disposal in accordance with the requirements of the Texas Low-Level Waste Compact. The WCS Senior Management team includes personnel experienced in waste packaging and disposal, such as the Vice President of Operations, who has over 20 years of experience in the radioactive waste management industry and has worked at numerous DOE sites including the Pantex Plant, Rocky Flats Environmental Technology Site, Idaho Cleanup Project, and the Nevada Security Site.

By letter dated November 3, 2017 (ADAMS Accession Number ML17313A431), the staff requested additional information regarding the Applicants' previous experience with NRC regulated decommissioning projects and the experience of the senior management and other key management personnel to better determine the qualifications of those persons and for a description of the responsibilities for the management positions not identified with a specific person. Staff also requested additional information on how the current VY decommissioning organization would transition to the organization proposed by the Applicants, how individuals from NorthStar's strategic partners would fit into the planned NorthStar NDC organization. In addition, the Applicants were asked to describe the lines of communication and authority of the proposed new organization and for further information regarding NorthStar's management and technical role in decommissioning projects at NRC licensed sites including NorthStar's role as either the principal lead contractor or subcontractor and the technical services it provided.

In response, by letter dated December 4, 2017 (ADAMS Accession Number ML17339A896), the Applicants provided the additional information requested which included further detail on the responsibilities and experience of the senior managers, the proposed changes to the current technical organization that would result from the transfer, and identification of where NorthStar NDC and its strategic partners fit into the planned organization chart. However, clear information was not provided as to the relationship and responsibilities of NorthStar to the other contractors on previous decommissioning projects and their relationship with the licensee. Therefore, by letter dated April 5, 2018 (ADAMS Accession Number ML18045A817), the staff requested additional information on NorthStar's management and technical role in various decommissioning projects licensed by the NRC in order to better understand the NorthStar role versus the roles of the other contactors involved with those projects.

The Applicant's RAI response dated May 21, 2018, (ADAMS Accession Number ML18142B193) better defined the regulatory and technical roles of NorthStar on previous projects involving NRC research reactor licensees and their relationship with the licensees. The response specifically described NorthStar's direct involvement and oversight of subcontractors that provided health physics support, radiation surveys, and supported waste packaging. transportation, and disposal. The response also described how NorthStar managed the projects and directly performed planning, dismantlement, decontamination, waste packaging, facility demolition, and site restoration. In addition, the response also provided the experience of the identified Director of Health Physics and Waste Operations against the requirements of ANSI/ANS-3.1-2014 "Selection, Qualification, and Training of Personnel for Nuclear Power Plants," (Section 4.3.3, Radiation Protection). While NorthStar NDC Director of Health Physics and Waste Operations is not required to fulfill the ANSI/ANS-3.1-2014 criteria, the Applicants stated that the proposed NorthStar NDC Director of Health Physics and Waste Operations has the education, training, and experience to fulfill the requirements of ANSI/ANS-3.1-2014. The application and the supplemental information provided through NorthStar's response to the RAIs provided the staff with an adequate understanding of NorthStar's previous decommissioning experience at NRC licensed sites, the organizational and reporting structure of the proposed NorthStar NDC organization, the responsibilities of NorthStar's strategic partners in the project and NorthStar's qualifications to undertake the VY decommissioning project.

Conclusion

Based on its review of the application for license transfer and supplemental information submitted in response to the RAIs, the NRC staff finds that the Applicants provided reasonable assurance that the requirements of 10 CFR 50.34(a)(9) and 10 CFR 50.80 regarding the technical qualifications of NorthStar NDC to engage in the proposed activities have been met. In addition the staff finds that NorthStar NDC is technically qualified to be the holder of the license, and that the transfer of the license is otherwise consistent with applicable provisions of law, regulations, and orders issued by the Commission. Accordingly, the staff concludes that the proposed NorthStar NDC management and technical support organization will adequately support the proposed maintenance and decommissioning activities at VY.

9.2 Onsite Organization

The NRC staff reviewed the application and supplemental information provided in response to the RAIs to determine the acceptability of the onsite organization at VY regarding the

organizational structure for accountability and reporting, and to evaluate any changes to the organization proposed as a result of the license transfer. VY's operating organization was determined to be acceptable by the initial licensing review and subsequent safety-related changes to the operating organization have been evaluated and approved by the NRC. The NRC staff determined that the proposed NorthStar NDC organization that would be responsible for the maintenance and decommissioning of the VY facilities, including the ISFSI, will reflect the current Entergy decommissioning organization, and would be adequate to perform decommissioning and spent fuel management at VY.

Conclusion

Based on its evaluation, the NRC staff concludes that the onsite organization will adequately support the proposed maintenance and decommissioning activities at VY in accordance with 10 CFR 50.34(a)(9) that requires applicants to provide the technical qualifications to engage in the proposed activities, and 10 CFR 50.80(c) that requires the proposed license transferee to be qualified to be the holder of the license and is otherwise consistent with applicable provisions of law, regulations, and orders issued by the Commission.

9.3 Technical Qualifications Conclusions

The Applicants have described the management and technical support organization, as well as the onsite operating organization, that would be responsible for the maintenance and decommissioning of VY after the proposed transfer of licensed authority to NorthStar NDC. Based on its evaluation as described above, the staff concludes that: (1) NorthStar NDC will have an acceptable management organization; (2) NorthStar NDC will retain an onsite organization capable of safely conducting decommissioning activities; and (3) NorthStar NDC will have the technically qualified resources and experience to support the safe maintenance and decommissioning of the VY site after the transfer of licensed authority from ENOI to NorthStar NDC. The NRC staff also determined that the Applicants provided reasonable assurance that the relevant requirements of 10 CFR 50.34(a)(9) and 10 CFR 50.80 to engage in the proposed activities have been met. Accordingly, in light of the foregoing evaluation, the NRC staff finds that NorthStar NDC is technically qualified to hold the VY License No. DPR-28 as proposed.

10.0 CONFORMING LICENSE AMENDMENT

10.1 Conforming Amendment

The applicants requested a conforming amendment to License No. DPR-28 for VY. No physical or operational changes to the facility were requested beyond those captured in the VY PSDAR. The proposed conforming amendment only reflects the proposed license transfer action. The amendment involves no safety question and is administrative in nature. Accordingly, the proposed amendment is acceptable.

10.2 State Consultation

In accordance with the Commission's regulations, the Vermont State official was notified of the proposed issuance of the amendment on October 4, 2018. The State official did not provide any comments.

10.3 Conforming Amendment Conclusion

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by the proposed action; (2) there is reasonable assurance that such activities will be conducted in compliance with the Commission's regulations; and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

11.0 <u>ENVIRONMENTAL CONSIDERATION</u>

The subject application is for approval of a transfer of a license issued by the NRC and an associated conforming amendment required to reflect the approval of the transfer. Accordingly, the actions involved meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(21). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the approval of the transfer application and conforming license amendment.

12.0 PUBLIC COMMENT

The NRC's notice of consideration of the approval of transfer of license and conforming amendment was published in the Federal Register on May 24, 2017 (82 FR 23845). The notice included an opportunity to provide written comment and notice that NRC was participating in a public meeting of the Vermont Nuclear Decommissioning Citizens Advisory Panel (NDCAP) on May 25, 2017. The announcement also identified that NRC personnel at the public meeting would take oral or written comments on the application for the proposed license transfer and the associated proposed revised updated PSDAR. A summary of the oral comments are captured in the public meeting summary (ADAMS Accession No. ML17192A375), a transcript of the public meeting is at ADAMS Accession No. ML17163A424.

In addition, five written comments were received in response to the Federal Register notice. These comments can be found at ADAMS Accession Numbers ML17163A087, ML17163A088, ML17179A245, ML17179A246, and ML17180A320.

There were several questions and comments from both the NDCAP and the general public at the meeting. The themes of the written questions and comments overlapped with the oral questions and comments. The themes of the questions and comments were as follows:

- 1) Concerns about the responsibility for any decommissioning fund shortfalls and the financial integrity or other qualifications of NorthStar and its partners
- 2) Use of the site after decommissioning
- 3) Concerns about continued storage of spent fuel after decommissioning, transportation of spent fuel and radioactive waste, and where spent fuel will go once removed from the site
- 4) Support for the timely review and approval of the license transfer and the immediate decommissioning of the facility

- 5) Concerns that support for the license transfer is partially based on proprietary information or incomplete cost information, and that the work will have proper oversight
- 6) Concerns about the proposal to rubbilize parts of the facility and burying it onsite and also support for that proposal
- 7) Concerns about the reduction of emergency planning and the proximity of school children to the plant site
- 8) Concern about Entergy's current use of the decommissioning trust fund
- 9) NRC communications and coordination on the review process
- 10) The potential impact on cultural resources and environmental justice issues from site decommissioning and waste disposal

The NRC staff reviewed the questions and comments made in the public meeting along with the written comments received during the open comment period and considered them in the review process. The themes of the questions and comments that were in the scope of the NRC's review, such as concerns about decommissioning fund shortfalls and the financial integrity and/or the financial and technical qualifications of NorthStar and its partners, are addressed in this safety evaluation of the license transfer request.

13.0 CONCLUSION

Based on the foregoing, and subject to the conditions described herein, the NRC staff concludes that NorthStar NDC and NorthStar VY are financially and technically qualified to hold the license for the Vermont Yankee Nuclear Power Station and the general license for the VY ISFSI, as described in the application, and engage in the proposed maintenance and decommissioning activities associated with the VY site. The NRC staff has concluded, based on the considerations discussed above, that: (1) the proposed transferees are qualified to be the direct and indirect holders of license DPR-28 and (2) the direct and indirect transfer of the license is otherwise consistent with applicable provisions of law, regulations, and orders issued by the Commission pursuant thereto.

Additionally, the NRC staff finds that the Applicants have satisfied the NRC's decommissioning funding assurance requirements and the applicable onsite and offsite insurance requirements as conditioned. Further the NRC staff finds that the Applicants are not owned, controlled, or dominated by a foreign entity.

Principal Contributors: M. Henderson, NRR/DIRS

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Date: October 11, 2018

Attachment 1 – NRC's Independent Cash Flow Analysis

THSTAR TRANG	SEER APPLICATION &	PSDA	R (reflecting data from	May 21 2018 RAI reer	onse)					
THOTAL TRAIN	SI ER AIT EIOATION &	I ODA	ar (reneeding data from	[AS ASSUMED]	onisc)					
	10 CFR 50.75			DOE						
	TRUST OPENNING		SUPPLEMENTAL DECOMMISSIONING	REIMBURSEMENT	NRC LICENSE	SPENT FUEL	SITE <e]< th=""><th rowspan="2">ISFSI</th><th rowspan="2">2.00% REAL RATE</th><th rowspan="2">TRUST CLOSING</th></e]<>	ISFSI	2.00% REAL RATE	TRUST CLOSING
YEAR	BALANCE		FUNDS	COLLECTED	TERMINATION	MANAGEMENT		DECOMMISSIONING	OF RETURN	BALANCE
2016										
2017										
2018										
2019	\$488,000	[A>	\$30,000		\$66,672	\$9,241	\$0		\$8.842	\$450
2020	\$450,929	Į, s	φοσ,σσσ		\$65,612	\$6,141	\$0		\$7,584	\$386
2021	\$386,759				\$69,745	\$4,241	\$0		\$6,255	\$319
2022	\$319,029				\$78,438	\$4,241	\$0		\$4,727	\$241
2023	\$241,077				\$87,519	\$4,241	\$0		\$2,986	\$152
2024	\$152,303				\$76,253	\$4,241	\$0		\$1,436	\$73
2025	\$73,245	[C>		\$20,000	\$41,369	\$8,657	\$0		\$864	\$44
2026	\$44,084	[0>		\$20,000	\$9,390	\$5,104	\$0		\$592	\$30
2026	\$30,181	[B>	\$140,000		\$9,390	\$9,275	\$0		\$3,218	\$164
2027		[D>	\$140,000	¢20,000	\$0 \$0		\$0		\$3,216	\$178
2028	\$164,125			\$20,000	\$0 \$0	\$9,275 \$9,275	\$0			\$173
2029	\$178,347								\$3,381	
	\$172,453			(00,000	\$0	\$9,275	\$0		\$3,264	\$166
2031	\$166,442			\$20,000	\$0	\$9,275	\$0		\$3,543	\$180
2032	\$180,710				\$0	\$9,275	\$0		\$3,429	\$17
2033	\$174,864			***	\$0	\$9,275	\$0		\$3,312	\$16
2034	\$168,900			\$20,000	\$0	\$9,275	\$0		\$3,593	\$183
2035	\$183,218				\$0	\$9,275	\$0		\$3,479	\$17
2036	\$177,422				\$0	\$9,275	\$0		\$3,363	\$17
2037	\$171,510			\$20,000	\$0	\$9,275	\$0		\$3,645	\$18
2038	\$185,879				\$0	\$9,275	\$0		\$3,532	\$18
2039	\$180,136				\$0	\$9,275	\$0		\$3,417	\$17
2040	\$174,279			\$20,000	\$0	\$9,275	\$0		\$3,700	\$18
2041	\$188,704				\$0	\$9,275	\$0		\$3,589	\$18
2042	\$183,017				\$0	\$9,275	\$0		\$3,475	\$17
2043	\$177,217			\$20,000	\$0	\$9,275	\$0		\$3,759	\$19
2044	\$191,701				\$0	\$9,275	\$0		\$3,649	\$18
2045	\$186,074				\$0	\$9,275	\$0		\$3,536	\$18
2046	\$180,335			\$20,000	\$0	\$9,275	\$0		\$3,821	\$19
2047	\$194,882				\$0	\$9,275	\$0		\$3,712	\$18
2048	\$189,319				\$0	\$9,275	\$0		\$3,601	\$18
2049	\$183,645			\$20,000	\$0	\$9,275	\$0		\$3,887	\$19
2050	\$198,257				\$0	\$9,275	\$0		\$3,780	\$19
2051	\$192,762				\$0	\$9,275	\$0		\$3,670	\$18
2052	\$187,156	[D>		\$20,000	<u>\$0</u>	<u>\$9,807</u>	<u>\$0</u>	<u>\$3,454</u>	\$3,878	\$19
TOTAL EXPS>					\$494,998	\$287,789	\$0	\$3,454		
					. ,					
NOTES:	[A> \$30 million notantic	al use	of escrow account & it	is included for escrew	growth	GRAND	TOTAL EXPENSES>	\$786,241		
110120.	 [A> \$30 million potential use of escrow account & it is included for escrow [B> \$140 million is support agreement (originally \$125 million) 				9 44.11					
	[C> \$20 million revolving DOE reimbursement assuming six year process for				or first installment					
	[D> Trust closing balar									



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

ENTERGY NUCLEAR OPERATIONS, INC.

DOCKET NO. 50-271

VERMONT YANKEE NUCLEAR POWER STATION

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 271 License No. DPR-28

- 1. The Nuclear Regulatory Commission (the Commission or the NRC) has found that:
 - A. The application for a license amendment filed by Entergy Nuclear Operations, Inc., dated February 9, 2017, as supplemented by letters dated April 6, 2017, August 22, 2017, August 28, 2017, December 4, 2017, December 22, 2017, May 21, 2018, and June 28, 2018, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and applicable portions of the Commission's regulations set forth in 10 CFR Chapter I, and all required notifications to other agencies or bodies have been duly made;
 - B. The facility will operate in conformity with the application, as supplemented, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51, "Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions," of the Commission's regulations and all applicable requirements have been satisfied.
- 2. Accordingly, Renewed Facility Operating License No. DPR-28 is amended as indicated in the attachment to this license amendment.

3. This license amendment is effective at the time the proposed direct and indirect license transfer is completed and shall be implemented within 30 days from that date.

FOR THE NUCLEAR REGULATORY COMMISSION

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

Attachment: Changes to Renewed Facility Operating License No. DPR-28

Date of Issuance: [date]

ATTACHMENT TO LICENSE AMENDMENT NO. 271

TO RENEWED FACILITY OPERATING LICENSE NO. DPR-28

DOCKET NO. 50-271

Replace the following pages of Renewed Facility Operating License No. DPR-28 and Appendix A, Technical Specifications, with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Renewed Facility Operating License No DPR-28

REMOVE	<u>INSERT</u>
first page	revised first page
- 2 -	- 2 -
- 3 - - 4 -	- 3 - - 4 -
- 4 - - 5 -	- 4 - - 5 -
- 6 -	- 6 -
- 7 -	- 7 -
- 8 -	- 8 -

Technical Specifications

REMOVE	<u>INSERT</u>
title page	revised title page 1

(Vermont Yankee Nuclear Power Station)

Docket No. 50-271

Renewed Facility Operating License

Renewed Operating License No. DPR-28

The U.S. Nuclear Regulatory Commission (NRC or the Commission), having previously made the findings set forth in Facility Operating License No. DPR-28, dated February 28, 1973, has now found that:

- a. This paragraph deleted by Amendment No. 263.
- The facility is prohibited from operating the reactor in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission; and
- c. There is reasonable assurance (i) that the activities authorized by this license can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the rules and regulations of the Commission; and
- d. NorthStar Vermont Yankee, LLC is financially qualified and NorthStar Nuclear Decommissioning Company, LLC is technically and financially qualified to engage in the activities authorized by this license, in accordance with the rules and regulations of the Commission: and
- e. NorthStar Vermont Yankee, LLC and NorthStar Nuclear Decommissioning Company, LLC. have satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements" of the Commission's regulations; and
- f. The issuance of this license will not be inimical to the common defense and security or to the health and safety of the public; and
- g. After weighing the environmental, economic, technical and other benefits of the facility against environmental costs and considering available alternatives, the issuance of this license (subject to the conditions for protection of the environment set forth herein) is in accordance with 10 CFR Part 51, of the Commission's regulations and all applicable requirements of said Part 51 have been satisfied.

Accordingly, Facility Operating License No. DPR-28, as amended, issued to NorthStar Vermont Yankee, LLC and NorthStar Nuclear Decommissioning Company, LLC is superseded by Renewed Facility Operating License No. DPR-28 and is hereby amended in its entirety to read:

- This renewed license applies to the Vermont Yankee Nuclear Power Station (the facility), a single cycle, boiling water, light water moderated and cooled reactor, and associated electric generating equipment. The facility is located on NorthStar Vermont Yankee, LLC's site, in the Town of Vernon, Windham County, Vermont, and is described in the application as amended.
- 2. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses:
 - A. Pursuant to Sections 104b of the Atomic Energy Act of 1954, as amended (the Act), and 10 CFR Part 50, "Licensing of Production and Utilization Facilities," NorthStar Vermont Yankee, LLC to possess and use, and NorthStar Nuclear Decommissioning Company, LLC, to possess, maintain and decommission the facility at the designated location on the NorthStar Vermont Yankee, LLC site.
 - B. NorthStar Nuclear Decommissioning Company, LLC, pursuant to the Act and 10 CFR Part 70, to possess at any time special nuclear material that was used as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation as described in the Final Safety Analysis Report, as supplemented and amended.
 - C. NorthStar Nuclear Decommissioning Company, LLC, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use at any time any byproduct, source, and special nuclear material as sealed neutron sources that were used for reactor startup, sealed sources that were used for calibration of reactor instrumentation and are used in radiation monitoring equipment, and as fission detectors in amounts as required.
 - D. NorthStar Nuclear Decommissioning Company, LLC, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use in amounts as required any byproduct, source, or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components.
 - E. NorthStar Nuclear Decommissioning Company, LLC, pursuant to the Act and 10 CFR Parts 30 and 70, to possess, but not to separate, such byproduct and special nuclear material as may be produced by operation of the facility.

- 3. This renewed license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations: 10 CFR Part 20, Section 30.34 of 10 CFR Part 30, Section 40.41 of 10 CFR Part 40, Section 50.54 and 50.59 of 10 CFR Part 50, and Section 70.32 of 10 CFR Part 70; and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified below:
 - A. This paragraph deleted by Amendment No. 263.

B. <u>Technical Specifications</u>

The Technical Specifications contained in Appendix A, as revised through Amendment No. 271, are hereby incorporated in the license. NorthStar Nuclear Decommissioning Company, LLC, shall possess, maintain and decommission the facility in accordance with the Technical Specifications.

- C. This paragraph deleted by Amendment No. 270.
- D. This paragraph deleted by Amendment No. 226.

E. <u>Environmental Conditions</u>

Pursuant to the Initial Decision of the presiding Atomic Safety and Licensing Board issued February 27, 1973, the following conditions for the protection of the environment are incorporated herein:

- 1. This paragraph deleted by Amendment No. 206, October 22, 2001.
- 2. This paragraph deleted by Amendment 131, 10/07/91.
- 3. This paragraph deleted by Amendment No. 206, October 22, 2001.
- 4. If harmful effects or evidence of irreversible damage in land or water ecosystems as a result of facility operation are detected by NorthStar Nuclear Decommissioning Company, LLC's environmental monitoring program, NorthStar Nuclear Decommissioning Company, LLC, shall provide an analysis of the problem to the Commission and to the advisory group for the Technical Specifications, and NorthStar Nuclear Decommissioning Company, LLC, thereafter will provide, subject to the review by the aforesaid advisory group, a course of action to be taken immediately to alleviate the problem.
- 5. NorthStar Nuclear Decommissioning Company, LLC, will grant authorized representatives of the Massachusetts Department of Public Health (MDPH) and Metropolitan District Commission (MDC) access to records and charts related to discharge of radioactive materials to the Connecticut River.
- 6. This paragraph deleted by Amendment No. 206, October 22, 2001.

Renewed Facility Operating License No. DPR-28 Amendment 259, 260, 262, 263, 265, 266, 267, 268, 269 270, 271

- 7. This paragraph deleted by Amendment No. 206, October 22, 2001.
- 8. NorthStar Nuclear Decommissioning Company, LLC will permit authorized representatives of the MDPH and MDC to examine the chemical and radioactivity analyses performed by Entergy Nuclear Operations, Inc.
- 9. NorthStar Nuclear Decommissioning Company, LLC shall immediately notify MDPH, or an agency designated by MDPH, in the event concentrations of radioactive materials in liquid effluents, measured at the point of release from the Vermont Yankee facility, exceed the limit set forth in the facility Offsite Dose Calculation Manual. NorthStar Nuclear Decommissioning Company, LLC will also notify MDPH in writing within 30 days following the release of radioactive materials in liquid effluents in excess of 10 percent of the limit set forth in the facility Offsite Dose Calculation Manual.
- 10. A report shall be submitted to MDPH and MDC by May 15 of each year, specifying the total quantities of radioactive materials released to the Connecticut River during the previous calendar year. The report shall contain the following information:
 - (a) Total curie activity discharged other than tritium and dissolved gases.
 - (b) Total curie alpha activity discharged.
 - (c) Total curies of tritium discharged.
 - (d) Total curies of dissolved radio-gases discharged.
 - (e) Total volume (in gallons) of liquid waste discharged.
 - (f) Total volume (in gallons) of dilution water.
 - (g) Average concentration at discharge outfall.
 - (h) This paragraph deleted by Amendment No. 206, October 22, 2001.
 - (i) Total radioactivity (in curies) released by nuclide including dissolved radio-gases.
 - (j) Percent of the facility Offsite Dose Calculation Manual limit for total activity released.
- 11. This paragraph deleted by Amendment No. 206, October 22, 2001.
- 12. This paragraph deleted by Amendment No. 206, October 22, 2001.
- 13. This paragraph deleted by Amendment No. 270.

- 14. NorthStar Nuclear Decommissioning Company, LLC shall furnish advance notification to MDPH, or to another Commonwealth agency designated by MDPH, of the time, method and proposed route through the Commonwealth of any shipments of nuclear fuel and wastes to and from the Vermont Yankee facility which will utilize railways or roadways in the Commonwealth.
- F. This paragraph deleted by Amendment No. 263.

G. Security Plan

Entergy Nuclear Operations, Inc. shall fully implement and maintain in effect all provisions of the Commission-approved physical security, training and qualification, and safeguards contingency plans¹ including amendments made pursuant to 10 CFR 72.212(b)(9) and to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The combined set of plans, which contain Safeguards Information protected under 10 CFR 73.21, is entitled: "ISFSI Physical Security Plan, Revision 0", approved on July 25, 2018.

- H. This paragraph deleted by Amendment No. 107, 8/25/88.
- I. This paragraph deleted by Amendment No. 131, 10/7/91.

¹ The Training and Qualification Plan and Safeguards Contingency Plan are Appendices to the Security Plan.

J. License Transfer Conditions

On the closing date of the transfer of Vermont Yankee Nuclear Power Station (Vermont Yankee), NorthStar Vermont Yankee, LLC shall obtain from Vermont Yankee Nuclear Power Corporation all of the accumulated decommissioning trust funds for the facility, and ensure the deposit of such funds into a decommissioning trust for Vermont Yankee established by NorthStar Vermont Yankee, LLC. If the amount of such funds does not meet or exceed the minimum amount required for the facility pursuant to 10 CFR 50.75, NorthStar Vermont Yankee, LLC shall at such time deposit additional funds into the trust and/or obtain a parent company guarantee (to be updated annually) and/or obtain a surety pursuant to 10 CFR 50.75(e)(1)(iii) in a form acceptable to the NRC and in an amount or amounts which, when combined with the decommissioning trust funds for the facility that have been obtained and deposited as required above, equals or exceeds the total amount required for the facility pursuant to 10 CFR 50.75. The decommissioning trust, and surety if utilized, shall be subject to or be consistent with the following requirements, as applicable:

a. Decommissioning Trust

- (i) The decommissioning trust agreement must be in a form acceptable to the NRC.
- (ii) With respect to the decommissioning trust funds, investments in the securities or other obligations of Entergy Corporation and its affiliates, successors, or assigns shall be prohibited. In addition, except for investments tied to market indexes or other non-nuclear-sector mutual funds, investments in any entity owning one or more nuclear power plants are prohibited.
- (iii) The decommissioning trust agreement must provide that no disbursements or payments from the trust, other than for ordinary administrative expenses, shall be made by the trustee until the trustee has first given the NRC 30 days prior written notice of payment. The decommissioning trust agreement shall further contain a provision that no disbursements or payments from the trust shall be made if the trustee receives prior written notice of objection from the Director of the Office of Nuclear Reactor Regulation.
- (iv) The decommissioning trust agreement must provide that the agreement cannot be amended in any material respect without 30 days prior written notification to the Director of the Office of Nuclear Reactor Regulation.

(v) The appropriate section of the decommissioning trust agreement shall state that the trustee, investment advisor, or anyone else directing the investments made in the trust shall adhere to a "prudent investor" standard, as specified in 18 CFR 35.32(a)(3) of the Federal Energy Regulatory Commission's regulations.

b. Surety

- (i) The surety agreement must be in a form acceptable to the NRC and be in accordance with all applicable NRC regulations.
- (ii) The surety company providing any surety obtained to comply with the Order approving the transfer shall be one of those listed by the U.S. Department of the Treasury in the most recent edition of <u>Circular 570</u> and shall have a coverage limit sufficient to cover the amount of the surety.
- (iii) NorthStar Vermont Yankee, LLC shall establish a standby trust to receive funds from the surety, if a surety is obtained, in the event that NorthStar Vermont Yankee, LLC defaults on its funding obligations for the decommissioning of Vermont Yankee. The standby trust agreement must be in a form acceptable to the NRC, and shall conform with all conditions otherwise applicable to the decommissioning trust agreement.
- (iv) The surety agreement must provide that the agreement cannot be amended in any material respect, or terminated, without 30 days prior written notification to the Director of the Office of Nuclear Reactor Regulation.

NorthStar Vermont Yankee, LLC shall take all necessary steps to ensure that the decommissioning trust is maintained in accordance with the application for approval of the transfer of this license to NorthStar Vermont Yankee, LLC and NorthStar Nuclear Decommissioning Company, LLC., and the requirements of the Order approving the transfer, and consistent with the safety evaluation supporting the Order.

NorthStar Vermont Yankee, LLC and NorthStar Nuclear Decommissioning Company, LLC shall take no action to cause NorthStar Group Services, Inc., to void, cancel, or modify the \$140 million Support agreement to provide funding for Vermont Yankee as represented in the application without prior written consent of the Director of the Office of Nuclear Reactor Regulation.

c. Performance Bond

NorthStar Vermont Yankee, LLC shall obtain a performance bond if a Settlement Agreement with the U.S. Department of Energy (DOE), on DOE reimbursements for spent fuel management expenses, is not entered into by January 1, 2022. The performance bond will be effective January 1, 2022, initially in the amount of \$4.3 million, and it will be renewed annually. This

amount covers the annual amount of Independent Spent Fuel Storage Installation (ISFSI) operation and maintenance (O&M) costs projected for 2022-2024. If a settlement is not reached by January 1, 2024, this amount will be increased to \$9.3 million, which covers the annual amount of ISFSI O&M costs projected for years after 2024.

4. This license is effective as of the date of issuance and is effective until the Commission notifies the licensee in writing that the license is terminated.

FOR THE NUCLEAR REGULATORY COMMISSION

Original Signed By Eric J. Leeds

Eric J. Leeds, Director Office of Nuclear Reactor Regulation

Enclosures:

Appendix A - Technical Specifications

Date of Issuance: March 21, 2011

APPENDIX A

TO

10 CFR PART 50 LICENSE DPR-28

TECHNICAL SPECIFICATIONS

FOR

VERMONT YANKEE NUCLEAR POWER STATION

VERNON, VERMONT

NORTHSTAR NUCLEAR DECOMMISSIONING COMPANY, LLC

AND

NORTHSTAR VERMONT YANKEE, LLC

DOCKET NO. 50-271

5.0 DESIGN FEATURES

5.1 Site

The station is located on the property on the west bank of the Connecticut River in the Town of Vernon, Vermont, which NorthStar Vermont Yankee, LLC either owns or to which it has perpetual rights and easements.

5.2 Spent Fuel Storage

Spent Fuel shall not be stored in the Spent Fuel Pool.

[7590-01-P]

NUCLEAR REGULATORY COMMISSION
[Docket No. 50-0271; NRC-2017-0125]

NorthStar Group Services, Inc.

Vermont Yankee Nuclear Power Station

AGENCY: Nuclear Regulatory Commission.

ACTION: Exemption; issuance.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is issuing an exemption in response to a May 25, 2018, request from NorthStar Group Services, Inc. (NorthStar), on behalf of Entergy Nuclear Vermont Yankee, LLC (ENVY, to be known as NorthStar Vermont Yankee, LLC or NorthStar VY following consummation of the license transfer described below). The exemption would allow NorthStar VY to use up to \$20 million in funds from the Vermont Yankee Nuclear Power Station (VY) nuclear decommissioning trust fund (NDT), on a revolving basis, for irradiated fuel management activities. By Order dated October 11, 2018, the NRC approved the request for the direct and indirect transfer of VY Renewed Facility Operating License No. DPR-28. This exemption is being issued simultaneously with the license transfer Order and will be effective upon the NRC's issuance of a conforming license amendment reflecting NorthStar VY and NorthStar NDC as the licensees for VY, following consummation of the license transfer transaction.

ADDRESSES: Please refer to Docket ID **NRC–2017–0125** 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 http://www.regulations.gov and search for Docket ID NRC-2017-0125. 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 http://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 ADAMS accession number for each document referenced (if it is available in ADAMS) is provided the first time that it is mentioned in this document.
- NRC's PDR: You may examine and purchase copies of public documents at the NRC's PDR, Room O1-F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

FOR FURTHER INFORMATION CONTACT: Jack Parrott, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; telephone: 301-415-6634; e-mail: Jack.Parrott@nrc.gov.

SUPPLEMENTARY INFORMATION:

I. Background

Vermont Yankee Nuclear Power Station is a single unit General Electric Mark-1 boiling water reactor (MWt 1,912) that was issued an operating license on

March 21, 1972. The facility is located in Vernon, Vermont. ENVY and Entergy Nuclear Operations, Inc. (ENOI), are the current holders of Renewed Facility Operating License No. DPR-28 for VY. VY has not operated since December 29, 2014. By letter dated January 12, 2015 (ADAMS Accession No. ML15013A426), in accordance with sections 50.82(a)(1)(i) and (ii) of title 10 of the *Code of Federal Regulations* (10 CFR), ENOI certified that VY had permanently ceased operations on December 29, 2014, and had permanently removed all fuel from the reactor vessel. Since January 12, 2015, ENVY and ENOI have been performing minor decommissioning activities while in SAFSTOR.

By letter dated February 9, 2017 (ADAMS Accession No. ML17045A140), ENOI, on behalf of itself and ENVY, and NorthStar Nuclear Decommissioning Company, LLC (NorthStar NDC), requested that the NRC consent to the proposed direct and indirect transfer of control of VY Renewed Facility Operating License No. DPR-28, and the Vermont Yankee Independent Spent Fuel Storage Installation (ISFSI) general license. The proposed license transfer would involve the indirect transfer of control of the VY licenses to NorthStar Decommissioning Holdings, LLC, and its parent companies, NorthStar, LVI Parent Corp. and NorthStar Group Holdings, LLC. Following the license transfer, the new licensees would be NorthStar VY and NorthStar NDC.

By letter dated April 6, 2017 (ADAMS Accession No. ML17096A394), NorthStar provided a revised Post Shutdown Decommissioning Activities Report (revised PSDAR). The NorthStar revised PSDAR reflected the immediate and accelerated decommissioning of VY by NorthStar VY and NorthStar NDC to be completed within a 7-year period after the proposed transfer is approved. The revised PSDAR also contained the most recent decommissioning cost estimate pursuant to 10 CFR 50.82, "Termination of license."

The proposed exemption would allow NorthStar VY to use up to \$20 million of funds on a revolving basis such that at any one time, up to \$20 million of the NDT could be used for irradiated fuel management. By Order dated October 11, 2018, the NRC approved the license transfer request (ADAMS Accession No. ML18242A638). This exemption is being issued simultaneously with the license transfer Order, and will only apply to NorthStar VY and NorthStar NDC following consummation of the license transfer transaction and NRC issuance of the conforming license amendment reflecting the transfer.

II. Request/Action

By letter dated May 25, 2018 (ADAMS Accession No. ML18150A315), NorthStar, on behalf of ENVY (to be known as NorthStar VY after consummation of the license transfer), pursuant to 10 CFR 50.12, "Specific Exemptions," submitted a request for an exemption to 10 CFR 50.82(a)(8)(i)(A), that would allow Vermont Yankee decommissioning trust funds to be used for irradiated fuel management. As stated in 10 CFR 50.82(a)(8)(i)(A), decommissioning trust funds may be used by a licensee if the withdrawals are for expenses for legitimate decommissioning activities consistent with the definition of decommissioning in 10 CFR 50.2. This definition addresses radiological decommissioning and does not include activities associated with irradiated fuel management. Therefore, NorthStar VY needs an exemption from 10 CFR 50.82(a)(8)(i)(A) to allow the use of funds from the NDT for irradiated fuel management activities.

NorthStar states that its cash flow analysis in Enclosure 1 of the application dated May 25, 2018, demonstrates that the NDT contains adequate funds to cover the estimated costs of radiological decommissioning and the additional funds for \$20 million

in irradiated fuel management activities that are covered by the exemption request. The adequacy of funds in the NDT to cover the costs of activities associated with radiological decommissioning and the additional funds for \$20 million in irradiated fuel management activities through license termination is supported by NorthStar's revised PSDAR. NorthStar states that application of the 10 CFR 50.82(a)(8)(i)(A) requirement restricting use of the trust fund is not necessary to ensure that adequate funds will be available for the radiological decommissioning of VY. NorthStar also states that a permanent repository for irradiated nuclear fuel currently does not exist. Therefore, NorthStar states it is faced with circumstances that were not explicitly contemplated by the existing regulations, because it will not be possible to fully decommission VY and terminate the license without first arranging for interim storage of spent nuclear fuel at an on-site ISFSI. For these reasons, NorthStar states that an exemption is needed to avoid unnecessary and undue costs to cover irradiated fuel management expenses from other sources.

III. Discussion

Pursuant to 10 CFR 50.12, the Commission may, upon application by any interested person or upon its own initiative, grant exemptions from the requirements of 10 CFR part 50, (1) when the exemptions are authorized by law, will not present an undue risk to the public health and safety, and are consistent with the common defense and security; and (2) when any of the special circumstances listed in 10 CFR 50.12(a)(2) are present. These special circumstances include, among other things, the following:

(a) Application of the regulation in the particular circumstances would not serve the underlying purpose of the rule or is not necessary to achieve the underlying purpose of the rule; or (b) Compliance would result in undue hardship or other costs that are significantly in excess of those contemplated when the regulation was adopted, or that are significantly in excess of those incurred by others similarly situated.

A. The Exemption is Authorized by Law

The proposed exemption from 10 CFR 50.82(a)(8)(i)(A) would allow NorthStar VY to use \$20 million on a revolving basis from the NDT for irradiated fuel management, consistent with the revised PSDAR. As stated above, 10 CFR 50.12 allows the NRC to grant exemptions from the requirements of 10 CFR part 50 when the exemptions are authorized by law. The proposed exemption would not result in a violation of the Atomic Energy Act of 1954, as amended, or the Commission's regulations. Therefore, the exemption is authorized by law.

B. The Exemption Presents no Undue Risk to Public Health and Safety

The underlying purpose of 10 CFR 50.82(a)(8)(i)(A) is to provide reasonable assurance that adequate funds will be available for radiological decommissioning of power reactors. Based on the staff's review of the applicant's site-specific cost estimate and the staff's independent cash flow analysis, provided as Attachment 1 to the NRC staff's Safety Evaluation of the associated License Transfer Request (ADAMS Accession No. ML18242A639), the NRC staff finds that use of \$20 million from the NDT, on a revolving basis, for irradiated fuel management activities will not adversely impact NorthStar VY and NorthStar NDC's ability to terminate the VY license (i.e., complete radiological decommissioning) as planned, consistent with the schedule and costs contained in the revised PSDAR.

There are no new accident precursors created by using the decommissioning trust fund in the proposed manner. Thus, the probability of postulated accidents is not increased. Also, the consequences of postulated accidents are not increased. The exemption does not involve any significant changes to the types or amounts of effluents that may be released offsite as a result of site activities associated with radiological decommissioning and irradiated fuel management, only the potential funding sources for those activities would be impacted by the exemption. Similarly, there is no significant increase in occupational or public radiation exposure. This exemption does not diminish the effectiveness of other regulations that ensure available funding for decommissioning, including 10 CFR 50.82(a)(6) which prohibits licensees from performing any decommissioning activities that could foreclose release of the site for possible unrestricted use, result in significant environmental impacts not previously reviewed, or result in there no longer being reasonable assurance that adequate funds will be available for decommissioning. Therefore, the exemption will not present an undue risk to the public health and safety.

C. The Exemption is Consistent with the Common Defense and Security

The requested exemption would allow NorthStar VY to use funds from the NDT for irradiated fuel management. Irradiated fuel management under 10 CFR 50.54(bb) is an integral part of the planned VY decommissioning and final license termination process and will not adversely affect NorthStar VY and NorthStar NDC's ability to physically secure the site or protect special nuclear material. This change to enable the use of a portion of the funds from the NDT for activities other than decommissioning activities has no relation to security issues. Therefore, the common defense and security is not impacted by the requested exemption.

D. Special Circumstances

According to 10 CFR 50.12(a)(2), the NRC will not consider granting an exemption to its regulations unless special circumstances are present. Special circumstances, in accordance with 10 CFR 50.12(a)(2)(ii), are present whenever application of the regulation in the particular circumstances is not necessary to achieve the underlying purpose of the regulation.

The underlying purpose of 10 CFR 50.82(a)(8)(i)(A) is to provide reasonable assurance that adequate funds will be available for radiological decommissioning of power reactors. Strict application of the rule would prohibit withdrawal of funds from the NDT for activities associated with irradiated fuel management until final radiological decommissioning at VY has been completed. Based on the NRC staff's review of NorthStar's submittals, the staff has determined that the revised PSDAR demonstrates reasonable assurance exists that funds within the NDT, when combined with a \$140 million support agreement (ADAMS Accession No. ML18009A459), \$30 million escrow account (ADAMS Accession No. ML18143B484), and anticipated future United States

Department of Energy (DOE) reimbursements (ADAMS Accession No. ML17339A896), are in excess of the amount needed to cover the estimated costs of radiological decommissioning and irradiated fuel management. The NRC staff's conclusion is reflected in the independent cash flow analysis, provided as Attachment 1 to the NRC staff's Safety Evaluation of the License Transfer Request (ADAMS Accession No. ML18242A639), which considers the most conservative opening NDT balance in 2019 (\$488 million), as indicated in NorthStar's letter dated June 28, 2018 (ADAMS Accession No. ML18183A220). The staff's cash flow analysis projects that the NDT may contain approximately \$197 million at the end of license termination activities in 2053 (using a 2.0% real rate of return as indicated in the regulations) when the spent fuel is removed from the site and the ISFSI is decommissioned.

The NorthStar PSDAR reflected NorthStar VY and NorthStar NDC's intention to use the NDT for irradiated fuel management. In its application dated May 25, 2018, NorthStar states that use of NDT for irradiated fuel management costs will not exceed \$20 million at any given time, and proposes that this "not to exceed" limitation be applied on a revolving basis. NorthStar further states that if it returns funds to the NDT through its anticipated DOE reimbursements, this would reduce the amount deemed withdrawn under the cumulative \$20 million limitation.

Based on its review, the staff has determined that reasonable assurance exists that adequate funds will be available in the NDT to complete radiological decommissioning, license termination, and the irradiated fuel management activities within the scope of this exemption request.

Therefore, since the underlying purposes of the rule would be achieved while allowing NorthStar VY to use the NDT to fund the irradiated fuel management activities within the scope of the exemption, the special circumstances of 10 CFR 50.12(a)(2)(ii)

are present, provided that the amounts withdrawn are limited to a total of \$20 million at any given time.

Special circumstances, in accordance with 10 CFR 50.12(a)(2)(iii) are also present whenever compliance would result in undue hardship or other costs that are significantly in excess of those contemplated when the regulation was adopted, or that are significantly in excess of those incurred by others similarly situated.

The NRC has stated that funding for irradiated fuel management may be commingled in the decommissioning trust provided the licensee is able to identify and account for the radiological decommissioning funds separately from the funds set aside for irradiated fuel management (see NRC Regulatory Issue Summary 2001-07, Rev 1, "10 CFR 50.75 Reporting and Recordkeeping for Decommissioning Planning," dated January 8, 2009, and Regulatory Guide 1.184, Rev 1, "Decommissioning of Nuclear Power Reactors"). As such, the NRC did not intend to prevent the use of these funds solely because they are commingled in the decommissioning trust, and to do so would create an unnecessary financial burden without any corresponding safety benefit. Consistent with this guidance, the NRC does not preclude use of funds from the NDT in excess of those needed for radiological decommissioning for other purposes, such as irradiated fuel management.

The adequacy of the NDT to cover both the cost of activities associated with decommissioning and the irradiated fuel management activities within the scope of this request is supported by the staff's cash flow analysis.

If NorthStar VY cannot use funds from the NDT for irradiated fuel management activities, it would be forced to provide additional funding that would not be recoverable from the NDT until the VY operating license is terminated. To prevent access to the excess funds in the decommissioning trust would impose an unnecessary and undue

burden in excess of that contemplated when the regulation was adopted without any corresponding safety benefit.

Therefore, compliance with the rule would result in an undue hardship or other costs that are significantly in excess of those contemplated when the regulation was adopted, or that are significantly in excess of those contemplated when the regulation was adopted, or that are significantly in excess of those incurred by others similarly situated. Accordingly, the special circumstances required by 10 CFR 50.12(a)(2)(iii) are present.

E. Environmental Considerations

In accordance with 10 CFR 51.31(a), the Commission has determined that the granting of this exemption will not have a significant effect on the quality of the human environment (see Environmental Assessment and Finding of No Significant Impact published on October 10, 2018 (83 FR 50966).

IV. Conclusions

The NRC staff finds that the proposed exemption would confirm the availability for use of the NDT funds for irradiated fuel management activities in accordance with the revised PSDAR. The NRC staff also finds that there is reasonable assurance that adequate funds are available in the NDT to complete all activities associated with radiological decommissioning, license termination, and irradiated fuel management activities within the scope of this exemption request. Additionally, there is no decrease in safety associated with the NDT being used to fund activities associated with irradiated fuel management, limited to a total of \$20 million at any given time.

Accordingly, the Commission has determined that, pursuant to 10 CFR 50.12(a), the exemption is authorized by law, will not present an undue risk to the public health and safety, and is consistent with the common defense and security. Also, special circumstances are present. Therefore, the Commission hereby grants NorthStar VY and NorthStar NDC an exemption from 10 CFR 50.82(a)(8)(i)(A) to allow the use of up to \$20 million of funds from the Vermont Yankee Nuclear Power Station nuclear decommissioning trust fund for purposes of managing irradiated fuel on a revolving basis.

This exemption is effective upon the NRC's issuance of a conforming license amendment reflecting NorthStar VY and NorthStar NDC as the licensees for VY, following NRC approval of the license transfer application and consummation of the transaction.

Dated at Rockville, Maryland, this 12th day of October 2018.

For the Nuclear Regulatory Commission.

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

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