



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

April 5, 2018

A. Christopher Bakken III
President and Chief Executive Officer
Entergy Nuclear Operations, Inc.
1340 Echelon Parkway
Jacksonville, MS 39213-1995

SUBJECT: VERMONT YANKEE NUCLEAR POWER STATION - REQUEST FOR
ADDITIONAL INFORMATION REGARDING THE REQUEST FOR DIRECT AND
INDIRECT LICENSE TRANSFERS FROM ENTERGY TO NORTHSTAR (EPID
NO. L-2017-LLM-0002)

Dear Mr. Bakken III:

By letter dated February 9, 2017 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML17045A140), Entergy Nuclear Operations, Inc. (ENOI), Entergy Nuclear Vermont Yankee, LLC (ENVY), NorthStar Vermont Yankee, LLC (NorthStar VY), and NorthStar Nuclear Decommissioning Company, LLC (NorthStar NDC) (together, Applicants) submitted an application for direct and indirect license transfers for Vermont Yankee Nuclear Power Station (VY) from ENOI and ENVY to NorthStar NDC and NorthStar VY. Specifically the Applicants requested written consent to transfer the Vermont Yankee Renewed Facility Operating License No. DPR-28 and the generally licensed Independent Spent Fuel Storage Installation to the named entities.

By letter dated November 3, 2017 (ADAMS Accession No. ML17313A431), the U.S. Nuclear Regulatory Commission (NRC) staff requested additional information (RAI) to complete its review of the request. In response, the Applicants submitted additional information by letters dated December 4, 2017 (ADAMS Accession No. ML17339A896) and December 22, 2017 (ADAMS Accession No. ML18009A459).

The NRC staff has reviewed these responses to the NRC's RAIs and has determined that additional information is needed to complete its review. The specific requests are found in the enclosed RAI.

The NRC staff requests that a response to the RAI be provided within 30 days of the date of this letter.

Please contact me at (301) 415-6634 if you have any questions.

Sincerely,

/RA/

Jack D. Parrott, Senior Project Manager
Reactor Decommissioning Branch
Division of Decommissioning, Uranium
and Waste Programs
Office of Nuclear Material Safety
and Safeguards

Docket Nos.: 50-271 and 72-59
License No.: DPR-28

Enclosure: RAI

cc w/encl: Vermont Yankee ListServ
Vermont Yankee Service List

SUBJECT: VERMONT YANKEE NUCLEAR POWER STATION - REQUEST FOR
 ADDITIONAL INFORMATION REGARDING DIRECT AND INDIRECT LICENSE
 TRANSFERS FROM ENTERGY TO NORTHSTAR
 (EPID NO. L-2017-LLM-0002), **DATED April 5, 2018**

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ADAMS Accession No.: ML18045A817

***by email**

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US NUCLEAR REGULATORY COMMISSION
REQUEST FOR ADDITIONAL INFORMATION
REGARDING THE DIRECT AND INDIRECT LICENSE TRANSFER REQUEST
FOR VERMONT YANKEE NUCLEAR POWER STATION
DOCKET NOS. 50-271 & 72-59

By letter dated February 9, 2017 (ADAMS Accession No. ML17045A140), the Applicants submitted a request for the direct and indirect license transfer of VY from ENOI and ENVY to NorthStar NDC and NorthStar VY (collectively, NorthStar). Specifically, the Applicants requested written consent to transfer the VY Renewed Facility Operating License No. DPR-28 and the generally licensed VY Independent Spent Fuel Storage Installation (ISFSI) in accordance with Section 184 of the Atomic Energy Act, and Title 10 of the Code of Federal Regulations (CFR), sections 10 CFR 50.80 and 10 CFR 72.50.

NRC regulations at 10 CFR 50.80 require the Commission's written consent for transfer of an operating license under Part 50. Specifically, 10 CFR 50.80(c) 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 the transfer of the license is otherwise consistent with applicable provisions of law, regulations, and orders issued by the Commission pursuant thereto."

NRC regulations at 10 CFR 50.33(f) require that the applicant for a license to operate a utilization facility "provide 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 regulation further states that, as applicable, the following should be provided:

. . . .

(4) Each application for a[n]. . . operating license . . . submitted by a newly-formed entity organized for the primary purpose of constructing and/or operating a facility must also include information showing:

(i) The legal and financial relationships it has or proposes to have with its stockholders or owners;

(ii) The stockholders' or owners' financial ability to meet any contractual obligation to the entity which they have incurred or proposed to incur; and

(iii) Any other information considered necessary by the Commission to enable it to determine the applicant's financial qualification.

(5) The Commission may request an established entity or newly-formed entity to submit additional or more detailed information respecting its financial arrangements and status

Enclosure

of funds if the Commission considers this information appropriate. This may include information regarding a licensee's ability to continue the conduct of the activities authorized by the license and to decommission the facility.

In addition to requirements in 10 CFR Part 50, certain regulations in 10 CFR Part 72 apply to a generally licensed ISFSI, as listed in 10 CFR 72.13(c), including 10 CFR 72.30(b)-(f); that regulation includes provisions for demonstration of financial assurance for decommissioning of a generally licensed ISFSI.

Based on review of the information supplied to date, NRC staff is unable to find that the funding mechanisms proposed by the Applicants are adequate to provide reasonable assurance that sufficient funds will be available for the decommissioning of VY, and for the management of spent fuel and ISFSI decommissioning at VY, such that NRC can approve the license transfer request. Therefore, additional information is needed to clarify how NorthStar demonstrates adequate financial assurance to complete licensed activities as provided for in its license transfer application. In addition, NRC staff needs further information to clearly understand the qualifications of NorthStar to hold an NRC license to perform this work. Accordingly, the NRC staff has the following additional requests for information:

RAI – 1:

On page 4 of the February 9, 2017 application, the Applicants stated, in part:

...The NDT [Nuclear Decommissioning Trust] will also provide up to \$20 million in revolving funds for the spent fuel management costs necessary to maintain the ISFSI, subject to replenishment from recovery of claims under the Standard Contract, consistent with the requirements of 10 CFR 50.54(bb) and 50.82(a)(8)(vii).

The NRC staff stated in its November 3, 2017 RAI that it is unclear whether the potential recovery of claims against the U.S. Department of Energy (DOE) under the Standard Contract constitutes a reliable source of funds and requested the rationale as to why the Applicants believe that these funds will be replenished for the purposes of spent fuel management.

Page 3 of Attachment 1 to the Applicants' December 4, 2017 RAI response states, in part, that:

“NorthStar is not relying on the recovery of the Round 3 Dry Fuel Storage Project costs from DOE as part of its spent fuel management funding plan; it is only relying on the recovery of the ‘Round 4’ and later DOE claims, which are expected to involve claims for only ISFSI maintenance costs.”

Additionally, page 6 of Attachment 1 states, in part, that:

“NorthStar VY anticipates that it will be able to enter into a settlement agreement with the DOE, which should provide for the annual recovery of ISFSI maintenance cost damages There may be a period of time where a settlement is unavailable due to ongoing litigation over the costs of the Dry Fuel Storage Project.”

From these statements it does not yet appear that there has been a claim filed for DOE reimbursements that could be relied upon for spent fuel management costs after the requested license transfer, nor that a favorable judgment has been obtained for recovery of those costs. In addition, NorthStar will not have a settlement agreement in place with DOE for the recovery of spent fuel management costs immediately following the proposed transfer. NorthStar also anticipates a period of time where settlement with DOE would be unavailable due to ongoing litigation. In order to judge the reliability of future reimbursements for spent fuel management costs at VY, NRC staff has the following RAIs:

RAI 1a. Identify all litigation to date that ENVY has instituted or joined in against the DOE or other U.S. government entity to recover the costs of spent fuel storage at VY, including the dates of filing and the amounts sought. Also, identify the current status of each such litigation and the results of each such litigation to date.

RAI 1b. For any current or future litigation in which a judgment has not yet been obtained, explain the likelihood that such litigation will result in a judgment in favor of the licensee, the expected date of judgment, and the expected date for termination of all related appeals.

RAI 1c. If NorthStar's plan for spent fuel management funding relies on potential litigation for claims that have not yet been filed with the U.S. Court of Federal Claims, please provide the expected filing date of any such claims, expected amount of any such claims, the likelihood that such litigation will result in a judgment in favor of the licensee, the expected date of judgement, and the expected date for termination of appeals.

RAI 1d. If NorthStar intends to enter into a settlement agreement with DOE for the recovery of spent fuel management costs, please provide an estimate of how long NorthStar anticipates that a settlement agreement with DOE would be unavailable, the anticipated date of settlement, and an explanation of the basis for these estimates.

RAI 1e. For any current or future litigation in which a judgment has not yet been obtained, explain why the current licensee(s) or NorthStar Group Services, Inc. (Parent) is (are) unable or unwilling to guarantee the payment of such funds to NorthStar (Subsidiary), to provide financial assurance for payment of the costs of spent fuel management at VY.

RAI – 2:

Enclosure 6 of Attachment 1 to the February 9, 2017 license transfer application contains the proposed Support Agreement between NorthStar Group Services, Inc. (Parent) and NorthStar Vermont Yankee, LLC (Subsidiary)(together, the Parties to the agreement). The proposed Support Agreement contains a list of items to which the Parties agree. Item 2 of that list contains the text:

No Guarantee. This Support Agreement is not, and nothing herein contained, and no action taken pursuant hereto by Parent shall be construed as, or deemed to constitute, a direct or indirect guarantee by Parent to any person of the payment of the Operating Costs or of any liability or obligation of any kind or character whatsoever of the Subsidiary. This Agreement may, however, be relied

upon by the NRC in determining the financial qualifications of the Subsidiary to hold the NRC License.

In the December 4, 2017 response to RAI 2, the Applicants state that the Support Agreement provides “an additional source of available funding to cover ongoing ISFSI maintenance costs.” In addition, the Applicants state that the Support Agreement will provide “parental financial support in the form of capital or loans...” From the information provided by the Applicants, it is unclear how the NRC can rely on the 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 states that the agreement is not a guarantee, and the Support Agreement does not constitute parent company guarantee as described in NRC regulations. Please provide the basis for your view that the NRC should rely upon the Support Agreement as a source of available funding in the absence of a guarantee that the specified funds will be provided by NorthStar Group Services, Inc.

RAI – 3:

RAI 1 of the NRC Staff’s November 3, 2017 RAI requested the Applicants to state whether they intend to apply for an exemption from 10 CFR 50.82(a)(8)(1)(A), or provide the rationale for why the Applicants believe that the exemption issued to ENOI to use nuclear decommissioning trust (NDT) funds for spent fuel management in accordance with ENOI’s Irradiated Fuel Management Plan and Post Shutdown Decommissioning Activities Report (PSDAR) would also apply to NorthStar VY upon transfer of the VY license, including applicability of the rationale that supports ENOI’s exemption.

The Applicants’ RAI response stated that NorthStar NDC and NorthStar VY do not intend to apply for an exemption from 10 CFR 50.82(a)(8)(1)(A) because NorthStar NDC and NorthStar VY plan to assume the regulatory rights and obligations of ENOI and ENVY, including exemptions. As such, NorthStar NDC and NorthStar VY believe that the exemption granted to ENOI/ENVY regarding the use of NDT funds for spent fuel management will continue to apply. The response acknowledges the changed circumstances or assumptions upon which the exemption was granted (e.g., NorthStar intends to accelerate decommissioning using a planned prompt DECON approach, and NorthStar only intends to use up to a maximum of \$20 million in NDT funds for spent fuel management at any one time).

The exemption granted to ENOI was an exemption from the requirements of 10 CFR 50.82(a)(8)(i)(A) that restricts the use of NDT withdrawals to expenses for legitimate decommissioning activities consistent with the definition of decommissioning which appears in 10 CFR 50.2. This definition does not include activities associated with irradiated fuel management. Therefore, an exemption from 10 CFR 50.82(a)(8)(i)(A) was issued to allow ENOI to use funds from the NDT for irradiated fuel management.

The basis for the exemption was the licensees’ compliance with the exemption criteria of: 1) 10 CFR 50.12(a)(1), requiring that the exemption be authorized by law, not present an undue risk to the public health and safety, and be consistent with the common defense and security; and, 2) a demonstration of special circumstances as required in 50.12(a)(2)(ii), showing that application of the rule (10 CFR 50.82(a)(8)(i)(A)) is not necessary to achieve the underlying purpose of the rule, and that compliance would result in undue hardship or other costs that are significantly in excess of those contemplated when the regulation was adopted.

The NRC granted ENOI's exemption request, having determined that the exemption was authorized by law and consistent with the common defense and security, and did not present an undue risk to public health and safety, based on the licensees' site-specific cost estimate and the cash flow analysis, showing that the use of a portion of the NDT for irradiated fuel management would not adversely impact ENOI's ability to complete radiological decommissioning within 60 years and terminate the VY license.

In granting ENOI's exemption request, the NRC also determined that application of the rule is not necessary to achieve the underlying purpose of the rule because the underlying purpose in this case is to provide reasonable assurance that adequate funds will be available for radiological decommissioning of the reactor. If the current licensee takes 60 years to decommission Vermont Yankee, as indicated in the PSDAR, and assumes a 2% annual real rate of return, as allowed by 50.75(e)(1)(ii), then the projected earnings of the trust combined with the current funds in the trust and planned future contributions provide assurance that there would be adequate funding to complete all NRC required decommissioning activities and conduct irradiated fuel management in accordance with the updated fuel management plan and PSDAR.

In addition, in granting the exemption, the NRC determined that precluding access to excess funds in the Trust, because irradiated fuel management is not associated with radiological decommissioning, would create an unnecessary financial burden without any corresponding safety benefit since the licensees' cost analysis showed that the Trust would have sufficient funds to cover the cost of activities associated with irradiated fuel management, in addition to radiological decommissioning. The NRC concluded that requiring compliance with the rule would have imposed an unnecessary and undue burden significantly in excess of that contemplated when the regulation was adopted.

In reviewing the Applicants' response to the NRC staff's RAI, the staff observed that the previous showing of special circumstances did not appear to apply, 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. Please address how the special circumstances that were shown to support the current exemption would continue to apply if the license transfer request is granted.

RAI – 4:

The NRC staff has learned that on March 2, 2018 (ADAMS Accession No. ML18066A044), the Applicants, certain State of Vermont agencies, and others, entered into a settlement agreement (Agreement) concerning the proposed purchase and sale (Proposed Transaction) of VY from Entergy to NorthStar. In that Agreement, the parties agreed to the approval of the Proposed Transaction by the Vermont Public Utility Commission, if all terms and conditions described in the Agreement are met. The NRC staff was not consulted regarding the Agreement and was not aware of its specific terms and conditions prior to its execution. To assist the staff in assessing any impact of the Agreement on the license transfer application, the NRC staff has the following RAIs:

RAI 4a. Please describe how the terms and conditions of the Agreement affect the financial and technical information submitted by the Applicants to the NRC regarding the license transfer application.

RAI 4b. On page 4, section 2.c, of the Agreement, NorthStar agrees to establish an escrow account that may be used to fund completion of decommissioning and/or site restoration activities at the VY Station site. However, the source of funding for this account is unclear. Language in this section suggests, in part, that funds withdrawn from the Nuclear Decommissioning Trust (NDT) for decommissioning expenses could be deposited into the escrow account. Specifically, this section states:

“...NorthStar shall deposit an additional \$25 million into the escrow account over time, which shall be accomplished by depositing 10% of each invoice paid with funds from the NDT for decommissioning or site restoration...”

NRC regulations in 10 CFR 50.82(a)(8)(i)(A) restrict the use of NDT withdrawals to expenses for legitimate decommissioning activities consistent with the definition of decommissioning in 10 CFR 50.2, which do not include expenses for meeting State site restoration requirements. Please clarify the source of funds to be deposited into the escrow account as described in this Agreement (initial deposit of \$30 million and subsequent deposit of \$25 million, in increments). In addition, please confirm whether any of the terms and conditions of the Agreement contemplate that the NDT would be used for expenses other than for decommissioning as defined in NRC regulations at 10 CFR 50.2.

RAI – 5:

Page 9 of Attachment 1 to the December 4, 2017 RAI response contains a table that shows NorthStar’s management and technical role in various decommissioning projects. In particular, for the four research reactor projects licensed by the NRC (at the Universities of Illinois, Arizona, Washington, and the State University of New York at Buffalo) the table indicates that NorthStar was the “Principal Lead Contractor” for these decommissioning projects. In addition, Appendix E of the December 4, 2017 RAI response contains the NorthStar project profiles of those four NRC regulated research reactor decommissioning projects plus an additional NRC regulated non-power reactor decommissioning project (the A.J. Blockey reactor), and describes NorthStar’s scope of work on that project as the “prime contractor.”

NRC records of the licensing and oversight of the decommissioning of two most recently decommissioned research reactors (the A.J. Blockey reactor and the State University of New York at Buffalo reactor) indicate that the companies ENERCON Services and/or AECOM were the principal contractor interface with the NRC.

RAI 5a. Please describe NorthStar’s relationship with ENERCON and AECOM and the licensees on the two most recently decommissioned research reactors, and explain how NorthStar’s principal role in these projects differed from the principal roles of the companies that NRC interacted with.

RAI 5b. Please provide a resume for the Director of Health Physics and Waste Operations that indicates the dates when the relevant experience listed was obtained, and compare his experience with the experience described for the radiation protection manager in ANSI/ANS-3.1-2014 (Section 4.3.3, “Radiation protection”) that has been endorsed by NRC in Draft Regulatory Guide DG-1329 (ADAMS Accession No. ML16091A267).

RAI 5c. The NRC staff has learned that one of NorthStar's strategic partners for the decommissioning of VY, Waste Control Specialists (WCS), was purchased by J.F. Lehman & Company in January 2018. Please provide information on the acquisition of WCS, how that acquisition may affect WCS' participation in the strategic partnership, and if the acquisition would have any effect on the proposed license transfer and VY decommissioning. Also, specifically describe the effect of the acquisition on the participation of the WCS individuals identified in Enclosure 3 to the license transfer application dated February 9, 2017, and in Attachment 1 of the Applicant's first RAI response dated December 4, 2017.