

NUCLEAR REGULATORY COMMISSION

[Docket No. 50-271; NRC-2015-0157]

Entergy Nuclear Operations, Inc.

Vermont Yankee Nuclear Power Station

AGENCY: Nuclear Regulatory Commission.

ACTION: Exemption; issuance.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is issuing exemptions in response to a January 6, 2015, request from Entergy Nuclear Operations, Inc. (ENO or the licensee). One exemption permits the use of the Vermont Yankee Nuclear Power Station (VY) Decommissioning Trust Fund (Trust) to implement the licensee's plan to manage irradiated fuel in accordance with the updated Irradiated Fuel Management Plan and post-shutdown decommissioning activities report (PSDAR). The other exemption permits the licensee to make withdrawals from the Trust in accordance with the updated Irradiated Fuel Management Plan and PSDAR without prior notification to the NRC.

DATES: [INSERT DATE OF PUBLICATION IN THE *FEDERAL REGISTER*].

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- **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: James Kim, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; telephone: 301-415-4125; e-mail: James.Kim@nrc.gov.

SUPPLEMENTARY INFORMATION:

I. Background.

Entergy Nuclear Operations, Inc. (ENO), is the holder of Renewed Facility Operating License No. DPR-28 for VY. By letter dated January 12, 2015 (ADAMS Accession No.

ML15013A426), ENO submitted to the NRC a certification in accordance with Sections 50.82(a)(1)(i) and 50.82(a)(1)(ii) of Title 10 of the *Code of Federal Regulations* (10 CFR), indicating that it had permanently ceased power operations at VY and had permanently defueled the VY reactor vessel. VY has not operated since December 29, 2014. The facility consists of a boiling water reactor located in the town of Vernon, Windham County, Vermont on the west bank of the Connecticut River, immediately upstream of the Vernon Hydroelectric Station.

II. Request/Action.

By letter dated January 6, 2015 (ADAMS Accession No. ML15013A171), ENO submitted a request for exemptions from 10 CFR 50.82(a)(8)(i)(A) and 10 CFR 50.75(h)(1)(iv). The exemption from 10 CFR 50.82(a)(8)(i)(A) would permit ENO to make withdrawals from the VY Trust to implement its plan to manage irradiated fuel in accordance with the updated Irradiated Fuel Management Plan and PSDAR. The exemption from 10 CFR 50.75(h)(1)(iv) would permit ENO to make these withdrawals without prior notification of the NRC, similar to withdrawals for decommissioning activities made in accordance with 10 CFR 50.82(a)(8). By a separate letter dated December 19, 2014 (ADAMS Accession No. ML14358A251), ENO submitted an update to the VY Irradiated Fuel Management Plan (as required by 10 CFR 50.54(bb)). The PSDAR, as required by 10 CFR 50.82(a)(4)(i), was also submitted on December 19, 2014 (ADAMS Accession No. ML14357A110).

The requirements of 10 CFR 50.82(a)(8)(i)(A) restrict the use of Trust 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) is needed to allow ENO to use funds from the Trust for irradiated fuel management.

The requirements of 10 CFR 50.75(h)(1)(iv) also restrict the use of Trust disbursements (other than for ordinary and incidental expenses) to decommissioning expenses until final decommissioning has been completed. The requirements of 10 CFR 50.75(h)(1)(iv) further provide that, except for withdrawals being made under 10 CFR 50.82(a)(8) or for payments of ordinary administrative costs and incidental expenses, no disbursement may be made from the Trust without written notice to the NRC at least 30 working days in advance. Therefore, an exemption from 10 CFR 50.75(h)(1)(iv) is needed to allow ENO to use funds from the Trust for irradiated fuel management without prior NRC notification.

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 Exemptions are Authorized by Law

The requested exemptions from 10 CFR 50.82(a)(8)(i)(A) and 10 CFR 50.75(h)(1)(iv) would allow ENO to use a portion of the funds from the Trust for irradiated fuel management without prior notice to the NRC, in the same manner that withdrawals are made under 10 CFR 50.82(a)(8) for decommissioning activities. 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 NRC staff has determined, as explained below, that granting the licensee's proposed exemptions will not result in a violation of the Atomic Energy Act of 1954, as amended, or the Commission's regulations. Therefore, the exemptions are authorized by law.

B. The Exemptions Present No Undue Risk to the Public Health and Safety

The underlying purpose of 10 CFR 50.82(a)(8)(i)(A) and 10 CFR 50.75(h)(1)(iv) is to provide reasonable assurance that adequate funds will be available for radiological decommissioning of power reactors. Based on the site-specific cost estimate and the cash flow analysis, use of a portion of the Trust for irradiated fuel management will not adversely impact ENO's ability to complete radiological decommissioning within 60 years and terminate the VY license. Furthermore, exemption from 10 CFR 50.75(h)(1)(iv) to allow the licensee to make withdrawals from the Trust for irradiated fuel management without prior written notification to the NRC should not affect the sufficiency of funds in the Trust to accomplish radiological decontamination of the site because such withdrawals are still constrained by the provisions of 10 CFR 50.82(a)(8)(i)(B) – (C) and are reviewable under the annual reporting requirements of 10 CFR 50.82(a)(8)(v) – (vii).

Based on the above, there are no new accident precursors created by using the Trust in the proposed manner. Thus, the probability of postulated accidents is not increased. Also, based on the above, the consequences of postulated accidents are not increased. No changes are being made in the types or amounts of effluents that may be released offsite. There is no significant increase in occupational or public radiation exposure. Therefore, the requested exemptions will not present an undue risk to the public health and safety.

C. The Exemptions are Consistent with the Common Defense and Security

The requested exemptions would allow ENO to use funds from the Trust for irradiated fuel management. Irradiated fuel management under 10 CFR 50.54(bb) is an integral part of the planned ENO decommissioning and final license termination process and will not adversely affect ENO'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 Trust for activities other than decommissioning activities has no relation to security issues. Therefore, the common defense and security is not impacted by the requested exemptions.

D. Special Circumstances

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) and 10 CFR 50.75(h)(1)(iv) is to provide reasonable assurance that adequate funds will be available for radiological decommissioning of power reactors. Strict application of these requirements would prohibit

withdrawal of funds from the Trust for activities other than decommissioning activities, such as irradiated fuel management, until final radiological decommissioning at VY has been completed.

The total VY Trust balance as of October 31, 2014, was approximately \$655.0 million in 2014 dollars. The ENO analysis projects the total radiological decommissioning cost of VY to be approximately \$817.2 million (2014 dollars). As required by 10 CFR 50.54(bb), ENO estimated the costs associated with the long-term irradiated fuel management at VY to be \$364.4 million in 2014 dollars.

The staff performed an independent cash flow analysis of the Trust through 2075, assuming an annual real rate of return of two percent, as allowed by 10 CFR 50.75(e)(1)(ii), and determined the projected earnings of the Trust. The staff confirmed that the current funds, planned future contributions, and projected earnings of the Trust provide reasonable assurance of adequate funding to complete all NRC required decommissioning activities and to conduct irradiated fuel management in accordance with the updated Irradiated Fuel Management Plan and PSDAR. The staff's review and conclusions are based on ENO's specific financial situation, as described in its December 19, 2014, letter. Consequently, the staff concludes that application of the requirement that funds from the Trust only be used for decommissioning activities and not for irradiated fuel management is not necessary to achieve the underlying purpose of the rule and, thus, that special circumstances are present supporting the approval of the exemption request.

In its submittal, ENO also requested exemption from the requirements of 10 CFR 50.75(h)(1)(iv) concerning prior written notification to the NRC of withdrawals from the Trust to fund activities other than decommissioning activities. The underlying purpose of notifying the NRC prior to withdrawal of funds from the Trust is to provide an opportunity for NRC intervention, when deemed necessary, if the withdrawals are for expenses other than

those authorized by 10 CFR 50.75(h)(1)(iv) and 10 CFR 50.82(a)(8) that could result in there being insufficient funds in the Trust to accomplish radiological decommissioning of the site.

As stated previously, the staff has determined that there are sufficient funds in the Trust to complete legitimate radiological decommissioning activities as well as to conduct irradiated fuel management. Pursuant to the annual reporting requirements in 10 CFR 50.82(a)(8)(v) – (vii), licensees are required to monitor and report the status of the Trust and the funding status for managing irradiated fuel. These reports provide the NRC with awareness of, and the ability to take action on, any actual or potential funding deficiencies. The requested exemptions would not allow withdrawal of funds from the VY Trust for any other purpose that is not currently authorized in the regulations without prior notification to the NRC. Therefore, the granting of this exemption to 10 CFR 50.75(h)(1)(iv) to allow the licensee to make withdrawals from the Trust for authorized expenses for irradiated fuel management without prior written notification to the NRC will still meet the underlying purpose of the regulation.

Special circumstances, in accordance with 10 CFR 50.12(a)(2)(iii) are 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 licensee states that the Trust contains funds in excess of the estimated costs of radiological decommissioning and that these excess funds are needed for irradiated fuel management activities. The NRC does not preclude use of funds from the Trust in excess of those needed for radiological decommissioning for other purposes, such as irradiated fuel management. The NRC has stated that funding for irradiated fuel management may be commingled in the 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, Revision 1, “10 CFR 50.75 Reporting and Recordkeeping for Decommissioning Planning” dated January 8, 2009 (ADAMS

Accession No. ML083440158), and Regulatory Guide 1.184, Revision 1, "10 CFR 50.75 Reporting and Recordkeeping for Decommissioning Planning" (ADAMS Accession No. ML13144A840)). To prevent access to those 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. The adequacy of the Trust to cover the cost of activities associated with irradiated fuel management, in addition to radiological decommissioning, is supported by the site-specific decommissioning cost analysis. If ENO cannot use its Trust for irradiated fuel management, it would need to obtain additional funding that would not be recoverable from the Trust, or ENO would have to modify its decommissioning approach and methods. The NRC staff concludes that either outcome would impose an unnecessary and undue burden significantly in excess of that contemplated when the regulation was adopted.

Since the underlying purpose of 10 CFR 50.82(a)(8)(i)(A) and 10 CFR 50.75(h)(1)(iv) would be achieved by allowing ENO to use a portion of the Trust for irradiated fuel management without prior NRC notification, and compliance with the regulations would result in an undue hardship or other costs that are significantly in excess of those contemplated when the regulation was adopted, the special circumstances required by 10 CFR 50.12(a)(2)(ii) and 10 CFR 50.12(a)(2)(iii) exist and support the approval of the requested exemptions.

E. Environmental Considerations

Under 10 CFR 51.22(c)(25), granting of an exemption from the requirements of any regulation of Chapter I is a categorical exclusion provided that (i) there is no significant hazards consideration; (ii) there is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite; (iii) there is no significant increase in individual or cumulative public or occupational radiation exposure; (iv) there is no significant

construction impact; (v) there is no significant increase in the potential for or consequences from radiological accidents; and (vi) the requirements from which an exemption is sought are among those identified in 10 CFR 51.22(c)(25)(vi).

The Director, Division of Operating Reactor Licensing, Office of Nuclear Reactor Regulation, has determined that approval of the exemption request involves no significant hazards consideration because allowing the licensee to use withdrawals from the Trust, in accordance with the updated Irradiated Fuel Management Plan and PSDAR, without prior notification to the NRC at the permanently shutdown and defueled VY power reactor, does not (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety. The exempted decommissioning trust fund regulations are unrelated to any operational restriction. Accordingly, there is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite; and no significant increase in individual or cumulative public or occupational radiation exposure. The exempted regulation is not associated with construction, so there is no significant construction impact. The exempted regulation does not concern the source term (i.e., potential amount of radiation in an accident), nor mitigation. Thus, there is no significant increase in the potential for or consequences from radiological accidents. The requirements for using decommissioning trust funds for decommissioning activities and for providing prior written notice for other withdrawals from which the exemption is sought involve recordkeeping requirements, reporting requirements, or other requirements of an administrative, managerial, or organizational nature.

Therefore, pursuant to 10 CFR 51.22(b) and 51.22(c)(25), no environmental impact statement or environmental assessment need be prepared in connection with the approval of this exemption request.

IV. Conclusions.

Accordingly, the Commission has determined that, pursuant to 10 CFR 50.12(a), 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. Also, special circumstances are present. Therefore, the Commission hereby grants ENO exemptions from the requirements of 10 CFR 50.82(a)(8)(i)(A) and 10 CFR 50.75(h)(1)(iv) to allow withdrawals from the VY Trust for irradiated fuel management without prior NRC notification.

The exemptions are effective upon issuance.

Dated at Rockville, Maryland, this 17th day of June 2015.

For the Nuclear Regulatory Commission.

/RA/

A. Louise Lund, Acting Director,
Division of Operating Reactor Licensing,
Office of Nuclear Reactor Regulation.