



NorthStar Nuclear Decommissioning Co., LLC
Vermont Yankee Nuclear Power Station
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802-451-5354

Corey R. Daniels
ISFSI Manager

10 CFR 20, Appendix G

BVY 19-025

August 28, 2019

ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

SUBJECT: Request for Exemption from 10 CFR 20, Appendix G, Section III.E
Vermont Yankee Nuclear Power Station
Docket No. 50-271
License No. DPR-28

Dear Sir or Madam:

In accordance with 10 CFR 20.2301, "Applications for exemptions," NorthStar Nuclear Decommissioning Co., LLC requests NRC approval for exemption from certain requirements of Section III.E of 10 CFR 20, Appendix G, "Requirements for Transfers of Low-Level Radioactive Waste Intended for Disposal at Licensed Land Disposal Facilities and Manifests," for the Vermont Yankee Nuclear Power Station (VY). These regulations require VY to investigate and report to the NRC when VY does not receive notification of receipt of a shipment, or part of a shipment, of low-level radioactive waste within 20 days after transfer. VY is requesting that the time period to receive acknowledgement that the shipment has been received by the intended recipient be extended from 20 days to 45 days for shipments. The requested exemption would be applicable to VY rail or mixed mode shipments such as a combination of truck/rail shipments. The attachment to this letter provides an evaluation of the request, which includes a description and purpose of the request, as well as justification for granting the exemption.

The requested exemption is similar to one submitted to the NRC on January 16, 2017, by LaCrosseSolutions, LLC for the La Crosse Boiling Water Reactor, and was approved by the NRC on May 2, 2017 in a letter to LaCrosseSolutions, LLC. In addition, the requested exemption is similar to one submitted to the NRC on October 27, 2014, by ZionSolutions, LLC for the Zion Nuclear Generating Station Units 1 and 2, and was approved by the NRC on January 30, 2015 in a letter to ZionSolutions, LLC.


This exemption request is not required to address an immediate safety concern. However, VY has been making low-level radioactive waste shipments, and therefore requests NRC approval of this exemption request within six months.

This letter contains no new regulatory commitments.

Should you have any questions concerning this letter, or require additional information, please contact Mr. Thomas B. Silko at (802) 451-5354, Ext 2506.

ADD
NRR

Sincerely,

A handwritten signature in black ink, appearing to be 'C. R. D.' or similar, written in a cursive style.

CRD/tbs

Attachment: Exemption Request Evaluation

cc: Mr. David C. Lew
Regional Administrator, Region 1
U.S. Nuclear Regulatory Commission
2100 Renaissance Blvd, Suite 100
King of Prussia, PA 19406-2713

Mr. Jack D. Parrott, Senior Project Manager
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
Mail Stop T-5A10
Washington, DC 20555

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

Attachment

Vermont Yankee Nuclear Power Station

Exemption Request Evaluation
(5 pages)

**APPLICATION FOR EXEMPTION FROM CERTAIN REQUIREMENTS OF
10 CFR 20, APPENDIX G, SECTION III.E**

I. APPLICATION FOR EXEMPTION

In accordance with 10 CFR 20.2301, "Applications for exemptions," NorthStar Nuclear Decommissioning Co., LLC requests an exemption from certain requirements of Section III.E of 10 CFR 20, Appendix G, for Vermont Yankee Nuclear Power Station (VY). 10 CFR 20, Appendix G, Section III.E "Requirements for Transfers of Low-Level Radioactive Waste Intended for Disposal at Licensed Land Disposal Facilities and Manifests," requires in part a licensee to investigate and report to the NRC when a licensee does not receive notification of receipt of a shipment, or part of a shipment, of low-level radioactive waste within 20 days after transfer. VY is requesting that the period of time to receive acknowledgement that the shipment has been received by the intended recipient be extended from 20 days to 45 days for shipments from the Vermont Yankee Nuclear Power Station. The requested exemption would be applicable to VY rail or mixed mode shipments such as a combination of truck/rail shipments.

II. PURPOSE

As described in Section 3.0 below, VY's experience thus far in 2019 and historical data obtained from other decommissioning power reactor sites indicates that numerous rail shipments could take longer than 20 days, resulting in an excessive administrative burden because of required investigations and reporting. By extending the time for receipt notification to 45 days before requiring investigation and reporting, a reasonable upper limit on shipment duration is still maintained if a shipment is delayed.

III. BACKGROUND

Section III.E of 10 CFR 20, Appendix G requires that any shipment, or part of a shipment, be investigated by the shipper if the shipper has not received notification of receipt within 20 days after transfer. Each licensee who conducts a trace investigation shall file a written report with the appropriate NRC Regional Office within two weeks of completion of the investigation:

VY is in the process of decommissioning the Vermont Yankee Nuclear Power facility. Inherent to the decommissioning process, large volumes of slightly contaminated debris are generated and require disposal. VY transports low-level radioactive waste from the facility to distant locations such as a waste disposal facility operated by Waste Control Specialist (WCS) in Andrews, Texas.

In June 2019, VY shipped two railcars containing four (4) freight containers each of low-level radioactive waste to the WCS disposal facility in Andrews, Texas. The total transit time between when the railcars were released from the VY facility until verification of receipt was received for the two railcars ranged from thirty-three (33) to forty (40) days. This was investigated by VY and reported to the NRC in a letter dated July 17, 2019 (Reference 1). In addition, the NRC documented that "operating experience indicates that, while the 20-day receipt notification window is adequate for waste shipments by truck, other modes of shipment such as rail, barge, or mixed-mode shipments, such as combinations of truck and rail, barge and rail, and barge and truck shipments, may take more than 20 days to reach their destination due to delays in the route that are outside the shipper's control (e.g., rail cars in switchyards waiting to be included in a complete train to the disposal facility)" (Reference 2).

The requested exemption is similar to one submitted to the NRC on January 16, 2017, by LaCrosseSolutions, LLC for the La Crosse Boiling Water Reactor facility (Reference 3). That exemption was approved by the NRC as issued in a May 2, 2017 Federal Register Notice granting LaCrosseSolutions an extension to 45 days (Reference 4). Another similar exemption from the reporting requirements of 10 CFR 20, Appendix G, Section III.E was submitted to the NRC by ZionSolutions on October 27, 2014 for the Zion Nuclear Generating Station Units 1 and 2 (Reference 5). That exemption was approved by the NRC as issued in a February 9, 2015 Federal Register Notice granting ZionSolutions an extension to 45 days (Reference 6).

Disposal of VY's low level radioactive waste will require rail shipments to waste disposal facilities or processors. Rail shipments may sit on the rail spur at a remote railyard (e.g., waiting for the train to depart or allow for railcar repair) and may add to shipping delays that extend the durations of shipments from VY. In addition, administrative processes at the disposal facility and mail delivery times could add several additional days. Therefore, VY is requesting an extension to 45 days for receipt notification of a rail shipment or rail/road shipments from the disposal or processing facility.

IV. JUSTIFICATION FOR EXEMPTION

As stated in 10 CFR 20.2301, "The Commission may, upon application by a licensee or upon its own initiative, grant an exemption from the requirements of the regulations in this part if it determines the exemption is authorized by law and would not result in undue hazard to life or property."

(1) The Requested Exemption is Authorized by Law

There are no provisions in the Atomic Energy Act (or in any other federal statute) that impose a requirement to investigate and report to the NRC low-level radioactive waste shipments that have not been acknowledged by the intended recipient within 20 days after transfer. Therefore, there is no statutory prohibition on the issuance of the requested exemption, and the NRC is authorized to grant the exemption under law.

(2) The Requested Exemption Would Not Result in Undue Hazard to Life or Property

The intent of 10 CFR 20, Appendix G, Section III.E is to require licensees to investigate, report, and trace radioactive shipments that have not reached their destination within 20 days after transfer. For rail shipments, VY utilizes an electronic data tracking system interchange, or similar tracking systems that allows monitoring the progress of the shipments by the rail carrier on a daily basis. As a result, granting an exemption to VY for shipments of low-level radioactive waste to disposal facilities or waste processors results in no undue hazard to life or property.

The purpose of the 10 CFR 20, Appendix G regulation is to investigate a late shipment that may be lost, misdirected, or diverted. For rail shipments, VY utilizes an electronic data tracking system interchange, or similar tracking systems that allows monitoring the progress of the shipments on a daily basis. As a result, it will be unlikely that a shipment could be lost, misdirected, or diverted without the knowledge of the carrier or VY.

V. ENVIRONMENTAL CONSIDERATIONS

The proposed exemption has been evaluated against the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(25):

(i) There is no significant hazards consideration;

VY has evaluated the proposed exemption to determine whether or not a significant hazards consideration is involved by focusing on the three standards set forth in 10 CFR 50.92(c) as discussed below:

1. Does the proposed exemption involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No.

All spent fuel at VY is maintained in dry fuel storage within the Independent Spent Fuel Storage Installation. In this configuration, there are no accidents evaluated in the Defueled Safety Analysis Report (DSAR).

The proposed exemption involves changes to certain reporting requirements delineated in 10 CFR Part 20, Appendix G, Section III.E. This proposed change has no effect on any facility structures, systems, and components (SSCs) or their capability to perform design functions, and therefore would not increase the likelihood of a malfunction of any facility SSC, or affect the performance of any SSCs relied upon to mitigate the consequences of an accident previously evaluated. The means by which SSCs are operated, maintained, modified, tested, or inspected are also not affected.

Therefore, the proposed exemption does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the proposed exemption create the possibility of a new or different kind of accident from any accident previously evaluated?

Response: No.

The proposed exemption does not involve a physical alteration of the facility, and no new or different types of SSCs will be installed, therefore there are no physical modifications to existing equipment that could result from the exemption. The proposed exemption does not involve modifications which could modify the manner in which facility SSCs are operated and maintained, and does not result in any changes to parameters within which the facility is normally operated and maintained.

Therefore, the proposed exemption does not create the possibility of a new or different kind of accident from any previously evaluated.

3. Does the proposed exemption involve a significant reduction in a margin of safety?

Response: No.

The proposed exemption from certain reporting requirements of 10 CFR Part 20, Appendix G, Section III.E is unrelated to any facility operation. As such, the exemption would not affect any remaining equipment of the facility.

Therefore, the proposed exemption does not involve a significant reduction in a margin of safety.

Based on the above, VY has determined that the proposed exemption presents no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and, accordingly, a finding of "no significant hazards consideration" is justified.

(ii) There is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite;

The requested exemption to certain reporting requirements specified in 10 CFR Part 20, Appendix G, Section III.E will not result in changes to any facility SSCs or design functions associated with monitoring or limiting the release of effluents. There are no expected changes in the types, characteristics, or quantities of effluents discharged to the environment as a result of the exemption. The exemption would not introduce any materials or chemicals into the facility that could affect any of the amounts or types of effluents released offsite. Therefore, there is no change in the types or 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;

The requested exemption proposes to revise certain reporting requirements delineated in 10 CFR 20, and as such does not result in any change to the consequences of the accident previously evaluated, and does not involve any significant change in the types of amounts of effluents that may be released offsite, as evaluated above. The proposed reporting requirements contained within this exemption request does not result in any physical changes to the facility SSCs, the manner in which they are operated or maintained, and does not involve a change to land use at the VY site. Therefore, there is no significant increase in individual or cumulative public or occupational radiation exposure.

(iv) There is no significant construction impact;

The requested exemption involves a change to certain reporting requirements specified in 10 CFR Part 20, Appendix G, Section III.E, and does not result in any physical changes to the facility or the manner in which any physical changes to the facility are performed. Therefore, there is no significant construction impact.

(v) There is no significant increase in the potential for or consequences from radiological accidents;

Refer to the no significant hazards considerations discussion in item (i) above.

(vi) The requirements from which an exemption is sought involve reporting requirements;

The purpose of the requested exemption is to modify certain reporting timeframe requirements in 10 CFR Part 20, Appendix G, Section III.E, which requires that any shipment, or part of a shipment, be investigated by the shipper if the shipper has not received notification of receipt within 20 days after transfer.

Accordingly, VY has determined that the proposed exemption meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(25)(i) through (vi) as an exemption involving reporting requirements. Therefore, in accordance with 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the consideration of this exemption request.

VI. CONCLUSION

The information provided gives the NRC sufficient basis for granting VY an exemption from 10 CFR 20, Appendix G, Section III.E. Under the exemption, VY would not be required to report a shipment which exceeded 20 days in accordance with 10 CFR 20, Appendix G, Section III.E unless a copy of the signed NRC Form 540 (or NRC Form 540A, if required) acknowledging receipt has not been received within 45 days of the shipment leaving the VY facility. VY will request a daily update to be provided for the location of the conveyance from the appropriate carriers. As a result, it will be unlikely that a shipment could be lost, misdirected, or diverted without the knowledge of the carrier or the VY staff.

VII. REFERENCES

1. Letter, NorthStar Nuclear Decommissioning Co., LLC. to USNRC, "Report of Investigation Pursuant to 10 CFR 20, Appendix G," BVY 19-026, dated July 17, 2019 (ML19233A019).
2. SECY-18-0055: Enclosure 1 - Federal Register Notice, Proposed Rule "Regulatory Improvements for Production and Utilization Facilities Transitioning to Decommissioning," pages 157-160, dated May 22, 2018 (ML18012A022).
3. Letter, LaCrosseSolutions, LLC to USNRC, "Request for Exemption from 10 CFR 20, Appendix G, Section III.E," dated January 16, 2017 (ML17018A136).
4. *Federal Register* (FR) Notice 82 FR 21832, dated May 10, 2017, "Exemption Issuance," for La Crosse Boiling Water Reactor.
5. Letter, ZionSolutions, LLC to USNRC, "Request for Exemption from 10 CFR 20, Appendix G, Section III.E," dated October 27, 2014 (ML14309A197).
6. *Federal Register* (FR) Notice 80 FR 7035, dated February 9, 2015 "Exemption Issuance," for Zion Nuclear Power Station, Units 1 and 2.