[7590-01-P]

NUCLEAR REGULATORY COMMISSION

[Docket Nos. 50-309, and 72-1015; NRC-2016-0028]

Independent Spent Fuel Storage Installation, Maine Yankee Atomic Power Company

AGENCY: Nuclear Regulatory Commission.

ACTION: Exemption; issuance.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is issuing an exemption in response to a September 1, 2015, request from Maine Yankee Atomic Power Company, (MYAPC or licensee) from the requirement to comply with the terms, conditions, and specifications regarding the method of compliance defined in Amendment 5 of the NAC International (NAC)-UMS System Certificate of Compliance (CoC) No. 1015, Appendix A "Technical Specifications for NAC-UMS System", Technical Specifications (TS) A.5.4 "Surveillance After an Off-Normal, Accident, or Natural Phenomena Event" at the Maine Yankee (MY) Independent Spent Fuel Storage Installation (ISFSI). The exemption request seeks a modification of TS A.5.4 inspection requirements for the inlet and outlet vents following off-normal, accident, and natural phenomena events.

ADDRESSES: Please refer to Docket ID NRC-2016-0028 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-2016-0028. Address questions about NRC dockets to Carol Gallagher; telephone: 301-415-3463; e-mail: Carol.Gallagher@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 "ADAMS Public Documents" and then 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 in this document (if that document is available in ADAMS) is provided the first time that a document is referenced.

- **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: John Goshen, Office of Nuclear Material Safety and Safeguards, telephone: 301-415-6933, e-mail: John.Goshen@nrc.gov; U.S. Nuclear Regulatory Commission, Washington, DC 20555.

SUPPLEMENTARY INFORMATION:

I. Background.

The licensee is the holder of Facility Operating License No. DPR 36 which authorizes operation of MY located near Wiscasset, Maine, pursuant to part 50 of title 10 of the *Code of*

Federal Regulations (10 CFR). The facility is in decommissioned status. The license provides, among other things, that the facility is subject to all rules, regulations, and orders of the NRC now or hereafter in effect.

Under Subpart K of 10 CFR part 72, a general license has been issued for the storage of spent fuel in an ISFSI at power reactor sites to persons authorized to possess or operate nuclear power reactors under 10 CFR part 50. Maine Yankee Atomic Power Company is licensed to operate a nuclear power reactor under 10 CFR part 50, and authorized under the 10 CFR part 72 general license to store spent fuel at the MY ISFSI. Under the terms of the general license, MY stores spent fuel using Amendment No. 5 of the NAC-UMS CoC No. 1015.

II. Request/Action.

The licensee requests an exemption from 10 CFR 72.212(b)(3), 10 CFR 72.212(b)(5)(i), and 10 CFR 72.214 for the MY ISFSI.

- Section 72.212(b)(3) requires that a general licensee use casks that conform to the terms, conditions, and specifications of a CoC or amended CoC listed in § 72.214. The NAC-UMS CoC No. 1015 is listed in 10 CFR 72.214.
- Section 72.212(b)(5)(i) requires, in relevant part, that a general licensee demonstrate a loaded cask will conform to the terms, conditions, and specifications of a CoC for a cask listed in § 72.214.
- Section 72.214 lists casks which are approved for storage of spent fuel under conditions specified in their CoCs, including CoC 1015 and Amendment No. 5.

The licensee, as a 10 CFR 72 general licensee, is required to use the NAC-UMS System according to the TS of the NAC-UMS System CoC No. 1015. Amendment No. 5 of the NAC-UMS CoC No. 1015, Appendix A, "Technical Specifications for the NAC-UMS System."

Technical specification A 5.4, "Surveillance After an Off-Normal, Accident, or Natural Phenomena Event" requires that a general licensee undertake a visual surveillance of the NAC-UMS casks within 4 hours after the occurrence of an off-normal, accident or natural phenomena event in the area of the ISFSI. This NAC-UMS cask inspection is part of the general licensee's surveillance response to verify that all the CONCRETE CASK inlets and outlets are not blocked or obstructed. The NAC-UMS TS A 5.4 also requires that at least one-half of the inlets and outlets on each CONCRETE CASK be cleared of blockage or debris within 24 hours to restore air circulation.

The licensee seeks the NRC's authorization to use NAC-UMS TS A 3.1.6 as an alternative to the visual surveillance method specified in NAC-UMS TS A 5.4. Technical Specification A 3.1.6 permits *either* visual surveillance of the inlets and outlets screens or temperature monitoring of each cask to establish the operability of the Concrete Cask Heat Removal System for each NAC-UMS cask and to show that the limiting conditions for operation under 3.1.6 are met. Technical Specification A 3.1.6 establishes ongoing requirements that MY must comply with during all phases of the cask storage operations, not only after an unusual event in the area of the ISFSI. In effect, TS A 3.1.6 provides continuous temperature monitoring or visual verification of all NAC-UMS No. 1015 casks.

The proposed alternative for implementing TS A 5.4 provides that Surveillance Requirement (SR) 3.1.6.1 is required to be performed following off-normal, accident or natural phenomena events. The NAC-UMS SYSTEMs in use at an ISFSI shall be inspected in accordance with SR 3.1.6.1 within 4 hours after the occurrence of an off-normal, accident or natural phenomena event in the area of the ISFSI to confirm operability of the CONCRETE CASK Heat Removal System for each NAC-UMS System. If a CONCRETE CASK Heat Removal System(s) for one or more NAC-UMS Systems is determined to be inoperable, Condition A of TS A 3.1.6 shall be entered and the Required Actions and associated Completion

Times met, including the immediate assurance of adequate heat removal to prevent exceeding short-term temperature limits for each affected cask.

The NAC-UMS Final Safety Analysis Report (FSAR) supports the use of either method defined in SR 3.1.6.1 to establish operability to comply with NAC-UMS TS A 3.1.6 or NAC-UMS TS A 5.4. Section 11.1.2.2 of the FSAR states, "Blockage of Half of the Air Inlets would be detected by the daily concrete cask operability inspection, which is performed either by the outlet air temperature measurements or by visual inspection of the inlet and outlet screens for blockage and integrity."

III. Discussion.

Under 10 CFR 72.7, the Commission may, upon application by any interested person or upon its own initiative, grant an exemption from the requirements of 10 CFR part 72, the exemption is authorized by law, will not endanger life or property or the common defense and security and is otherwise in the public interest. As explained below, the proposed exemption is lawful, will not endanger life or property, or the common defense and security, and is otherwise in the public interest.

The Exemption is Authorized by Law

The exemption would permit the licensee to use either of the inspection methods permitted by NAC-UMS TS A 3.1.6 as an alternative to the single surveillance method in NAC-UMS TS A 5.4. The licensee would conduct a surveillance response within 4 hours after the occurrence of an off-normal, accident, or natural phenomena event, as required by NAC-UMS TS A 5.4, but would be permitted to use either temperature monitoring or visual inspection to ensure the Concrete Cask Heat Removal Systems are within the limiting conditions for operation. The exemption is limited to off-normal, accident, or natural phenomena events,

specifically major snow or icing events (snow/ice events that have the potential to or that exceed blockage of greater than one-half of the inlet or outlet vents).

The licensee requested an exemption from the provisions in 10 CFR part 72 that requires the licensee to comply with the terms, conditions, and specifications of the CoC for the approved cask model that it uses. Section 72.7 allows the NRC to grant exemptions from the requirements of 10 CFR part 72. Issuance of this exemption is consistent with the Atomic Energy Act of 1954, as amended, and is not inconsistent with NRC regulations or other applicable laws.

The Exemption is Consistent with the Common Defense and Security

The requested exemption would allow the licensee to use the SR, conditions, required actions, and completion times defined in NAC-UMS TS A 3.1.6 as an alternative to the single-method surveillance response in NAC-UMS TS A 5.4. TS A 3.1.6 permits *either* visual inspection of the inlet and outlet screens or temperature monitoring to establish the operability of the Concrete Cask Heat Removal System for each NAC-UMS System and to comply with the limiting conditions for operation for TS A 3.1.6. Surveillance requirement 3.1.6.1 permits temperature monitoring or visual inspection of the inlet and outlet screens to be utilized to establish the operability of the Concrete Cask Heat Removal System for each NAC-UMS System to meet Limiting Condition for Operation 3.1.6. In the event the applicable acceptance criterion of SR 3.1.6.1 is not met, Required Action A.1 requires the licensee to immediately ensure adequate heat removal to prevent exceeding short-term temperature limits for each affected cask.

The NRC staff reviewed the licensee's request and finds allowing the use of either visual surveillance of the inlet and outlet screens or temperature monitoring of the inlets and outlets within 4 hours of the occurrence of off-normal, accident, or natural phenomena events, when limited to major snow and icing events, does not compromise safety. The exemption still

requires the licensee to perform SR 3.1.6.1 to establish the operability of the Concrete Cask Heat Removal Systems every 24 hours via temperature monitoring or visual inspection of the inlet and outlet screens. In addition, the exemption provides no additional time to complete the required surveillance of the inlets and outlets screens in accordance with TS A 5.4. The use of either method will ensure that adequate air flows past the storage canisters and that heat transfer occurs. For these reasons, the NRC staff found the same level of safety is obtained by using either of the TS A 3.1.6 methods to comply with NAC-UMS TS A 5.4 during limited types off-normal, accident, or natural phenomena.

The NRC staff has determined that the thermal, structural, criticality, retrievability, and radiation protection requirements of 10 CFR part 72 and the offsite dose limits of 10 CFR part 20 will be maintained For these reasons, the NRC staff finds the same level of safety is obtained by using either of the TS A 3.1.6 methods to comply with NAC-UMS TS A 5.4. Therefore, the NRC concludes that the exemption will not endanger life or property or the common defense and security.

The Exemption Presents no Undue Risk to Public Health and Safety

As described in the application, exempting the licensee from visual surveillance of cask inlet and outlet vents within 4 hours of a major snowstorm would allow the licensee to prioritize more effectively important storm-related activities at the MY site. Snow and ice blockage of the inlet and outlet vents is unusual. Moreover, snow and ice blockages are identified reliably by temperature monitoring of individual casks. The NRC staff recognizes there is a risk to the safety of workers responsible for clearing snow and ice from cask pads during extreme winter conditions when visual surveillance of casks must be undertaken within 4 hours. The NRC staff finds this risk to workers can be reduced by using SR 3.1.6.1 to establish the operability of the Concrete Cask Heat Removal Systems via temperature monitoring or visual inspection of the inlet and outlet screens. In addition, the limiting conditions for operation of the NAC-UMS

System require the Concrete Cask Heat Removal System for each cask to be operable during storage operation thus ensuring public health and safety are not reduced.

Therefore, the NRC staff finds that allowing the licensee to use the SR, conditions, required actions, and completion times defined in NAC-UMS TS A 3.1.6 as an alternative method to the single-method surveillance response in NAC-UMS TS A 5.4 would reduce worker safety risks to plant workers involved in snow removal. Therefore, granting the exemption is otherwise in the public interest.

Environmental Considerations

The NRC staff evaluated whether there would be significant environmental impacts associated with the issuance of the requested exemption. The NRC staff determined the proposed action fits a category of actions that do not require an environmental assessment or environmental impact statement. The exemption meets the categorical exclusion requirements of 10 CFR 51.22(c)(25)(i)-(vi).

Granting an exemption from the requirements of 10 CFR 72.212(b)(3), 10 CFR 72.212(b)(5)(i), and 10 CFR 72.214 for the MY ISFSI involves the inspection and surveillance requirements associated with TS A 5.4. A categorical exclusion for inspection and SRs is provided under 10 CFR 51.22(c)(25)(vi)(C), if the criteria in 10 CFR 51.22(c)(25)(i)-(v) are also satisfied.

The granting of the exemption: i) would not involve a significant hazards consideration because it does not reduce a margin of safety, create a new or different kind of accident not previously evaluated, or significantly increase the probability or consequences of an unevaluated accident; ii) would not create a significant change in the types or significant increase in the amounts of any effluents that may be released offsite because the exemption does not change or produce additional avenues of effluent release; iii) would not significantly increase individual or cumulative public or occupational radiation exposure because the

exemption does not introduce new or increased radiological hazards; iv) would not result in significant construction impacts because the exemption would not involve construction or other ground disturbing activities, nor change the footprint of the existing ISFSI; (v) would not significantly increase the potential for or consequences from radiological accidents because the exemption requires a surveillance method that ensures the heat removal system of casks is maintained within the limiting conditions for operation; and (vi) the request seeks exemption from inspection or surveillance requirements, specifically, the single-method SR in NAC-UMS TS A 5.4 may be substituted with the SR, conditions, required actions, and completion times defined in NAC-UMS TS A 3.1.6.

In its review of the exemption request, the NRC staff determined the proposed exemption meets the eligibility criterion for categorical exclusion in 10 CFR 51.22(c)(25). Therefore, there are no significant radiological environmental impacts associated with the proposed action.

IV. Conclusion.

The NRC has determined that, under 10 CFR 72.7, the exemption is authorized by law, will not endanger life or property or the common defense and security, and is otherwise in the public interest. Therefore, the NRC grants MYAPC an exemption from the requirements in 10 CFR 72.212(b)(3), 10 CFR 72.212(b)(5)(i), 10 CFR 72.214, and to TS A.5.4 for the NAC-UMS System CoC No. 1015 storage casks at the MY ISFSI. The exemption authorizes the licensee to use the surveillance requirement, conditions, required actions, and completion times defined in NAC-UMS TS A 3.1.6 to comply with NAC-UMS TS A 5.4 after off-normal, accident, or natural phenomena events, but is specifically limited to major snow or icing events.

This exemption is effective upon issuance.

Dated at Rockville, Maryland, this 4th day of February, 2016.

For the Nuclear Regulatory Commission.

Steve Ruffin, Acting Chief,
Spent Fuel Licensing Branch,
Division of Spent Fuel Management,
Office of Nuclear Material Safety
and Safeguards.

[FR Doc. 2016-03413 Filed: 2/17/2016 8:45 am; Publication Date: 2/18/2016]