

NUCLEAR REGULATORY COMMISSION

[Docket No. 72-16; NRC-2016-0177]

North Anna Power Station Independent Spent Fuel Storage Installation

AGENCY: Nuclear Regulatory Commission.

ACTION: Environmental assessment and finding of no significant impact; issuance.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is considering the renewal of NRC special nuclear materials (SNM) license SNM-2507 for the continued operation of the North Anna Power Station's (NAPS) specifically licensed independent spent fuel storage installation (ISFSI) in Louisa County, Virginia. The NRC has prepared an environmental assessment (EA) for this proposed license renewal in accordance with its regulations in title 10 of the *Code of Federal Regulations* (10 CFR). Based on the EA, the NRC has concluded that a finding of no significant impact (FONSI) is appropriate. The NRC is also conducting a safety evaluation of the proposed license renewal.

DATES: The EA and FONSI referenced in this document are available on February 2, 2018.

ADDRESSES: Please refer to Docket ID **NRC-2016-0177** 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-2016-0177**. 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 (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: Jean Trefethen, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; telephone: 301-415-0867, e-mail: Jean.Trefethen@nrc.gov.

SUPPLEMENTARY INFORMATION:

I. Introduction

The NRC is considering the renewal of license SNM-2507 for Virginia Electric and Power Company and the Old Dominion Electric Cooperative's (collectively referred to as Dominion) NAPS specifically licensed ISFSI located in Louisa County, Virginia (ADAMS Accession No. ML16153A140) for an additional 40 years. License SNM-2507 allows Dominion to store spent nuclear fuel from NAPS Units 1 and 2 in the specifically licensed ISFSI. The current license will expire on June 30, 2018. If approved, Dominion would be able to continue to possess, store and continue to load and place casks with spent nuclear fuel at the NAPS specifically-licensed ISFSI in accordance with the requirements in 10 CFR part 72, "Licensing Requirements for the Independent Storage of Spent Nuclear Fuel, High-Level Radioactive Waste, and Reactor-Related Greater than Class C Waste."

The NRC staff has prepared a final EA as part of its review of this proposed license renewal in accordance with the requirements in 10 CFR part 51, "Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions." Based on the final EA, the NRC has determined that an environmental impact statement is not required for this proposed action and a FONSI is appropriate. The NRC is also conducting a safety evaluation of the proposed license renewal pursuant to 10 CFR part 72 and the results will be documented in a separate safety evaluation report (SER). If Dominion's request is approved, the NRC will issue the license renewal and publish a separate notice of issuance in the *Federal Register*.

In 1998, the NRC issued a 20-year license to Dominion to receive, possess, store, and transfer spent nuclear fuel generated at the NAPS Units 1 and 2 to a specifically licensed ISFSI located on the NAPS site. License SNM-2507 allows Dominion to store 84 Transnuclear-32 (TN-32) sealed surface storage casks (TN-32 casks) on three pads (i.e., 28 TN-32 casks per pad). Each TN-32 cask is designed to hold 32 pressurized water reactor (PWR) fuel assemblies (NRC, 1997). Prior to

issuance of the license, the NRC prepared a final EA (ADAMS Accession No. ML123480192) and determined that the construction and operation of the ISFSI would not have a significant impact on the quality of the human environment. That FONSI was published on April 4, 1997 (62 FR 16202).

In addition, the NRC recently approved a license amendment request (ADAMS Accession No. ML17234A539) from Dominion to place one cask (the 28th and final cask to be placed on Pad 1 of the specifically licensed ISFSI) with high burnup spent nuclear fuel (i.e., spent fuel with burnup greater than 45,000 MWD/MTU) in a Modified TN-32B High Burn-up Cask (TN-32B HBU) on this specifically licensed ISFSI to support the High Burnup Dry Storage Cask Research and Development Project. The NRC staff's EA in support of that license amendment request was published in June 2016 (ADAMS Accession No. ML16168A104). On November 30, 2017, Dominion placed in service the TN-32B HBU cask with high burnup fuel in Pad 1 of the specifically licensed ISFSI. Currently, the specifically licensed ISFSI consists of one pad (Pad 1) with 28 spent fuel storage casks, the 28th of which is TN-32B HBU.

The Dominion ISFSI is located in rural Louisa County, Virginia, approximately 64 kilometers (km) [40 miles (mi)] northwest of Richmond, Virginia and approximately 35 km (22 mi) southwest of Fredericksburg, Virginia. The NAPS site is located approximately 10 km (6 mi) northeast of the town of Mineral, Virginia.

On May 25, 2016, the licensee submitted their application for a 40-year license renewal of the NAPS specifically licensed ISFSI (ADAMS Accession No. ML16153A140).

II. Final Environmental Assessment Summary

Dominion is requesting to renew its specifically licensed ISFSI for an additional 40 year-period. The current license will expire on June 30, 2018. Specifically, if

approved Dominion would be able to continue to possess, store and to load and place casks with spent nuclear fuel from NAPS Units 1 and 2 at the NAPS specifically licensed ISFSI in accordance with the requirements in 10 CFR part 72. In accordance with license SNM-2507, Dominion uses the TN-32 casks and a TN-32B HBU cask.

The NRC has assessed the potential environmental impacts of the proposed action; and alternatives to the proposed action including renewing the license for a 20 year-period, and the no-action alternative. The results of the NRC's environmental review can be found in the final EA (ADAMS Accession No. ML17311A450). The NRC staff performed its environmental review in accordance with the requirements in 10 CFR part 51. In conducting the environmental review, the NRC considered information in the license renewal application (ADAMS Accession No. ML16153A140); information in the responses to the NRC's requests for additional information (ADAMS Accession No. ML17025A128); communications and consultation with the Pamunkey Indian Tribe, Virginia State Historic Preservation Office, the U.S. Fish and Wildlife Service (FWS), and the Virginia Department of Health.

Approval of Dominion's proposed license renewal would allow the continued storage of spent nuclear fuel for an additional 40 years. In addition, the casks would be subject to NRC's review and oversight to ensure the casks are designed and maintained in accordance with the regulatory limits in 10 CFR parts 20 and 72. Furthermore, Dominion maintains a radiation protection program for NAPS Units 1 and 2 and the specifically licensed ISFSI in accordance with 10 CFR part 20 to ensure that radiation doses are as low as is reasonably achievable. Accordingly, no significant radiological or non-radiological impacts are expected to result from approval of the license renewal request, and the proposed action would not significantly contribute to cumulative impacts at the NAPS site. Additionally, there

would be no disproportionately high and adverse impacts on minority and low-income populations.

In its license renewal request, Dominion is proposing no changes in how it handles or stores spent fuel at the NAPS specifically licensed ISFSI. Approval of the proposed action would not result in any new construction or expansion of the existing ISFSI footprint beyond that previously approved. The ISFSI is a passive facility that produces no liquid or gaseous effluents. No significant radiological or nonradiological impacts are expected from continued normal operations. Occupational dose estimates associated with the proposed action and continued normal operation and maintenance of the ISFSI are expected to be at as low as reasonably achievable levels and within the limits of 10 CFR 20.1201. Therefore, the NRC staff has determined that pursuant to 10 CFR 51.31, preparation of an EIS is not required for the proposed action, and pursuant to 10 CFR 51.32, a FONSI is appropriate.

Furthermore, the NRC staff determined that this license renewal request does not have the potential to cause effects on historic properties, assuming those were present; therefore, in accordance with 36 CFR 800.3(a)(1), no consultation is required under Section 106 of the National Historic Preservation Act. The NRC staff, however, reached out to and informed the Virginia State Historic Preservation Officer and the Pamunkey Tribe of Virginia of its determination via letters dated October 18, 2016, and October 26, 2016, respectively (ADAMS Accession Nos: ML16279A432 and ML16279A419, respectively). The Virginia Department of Historic Resources responded via letter dated December 30, 2016, that based on information provided they concurred that the undertaking will not impact historic properties (ADAMS Accession No. ML16365A205). The Pamunkey Tribe responded via email dated

November 11, 2016, that they were not aware of any historic or cultural resources that would be affected and requested NRC to contact them if potential cultural sites are identified (ADAMS Accession No. ML16313A325).

Finally, the NRC staff also consulted with the FWS in accordance with Section 7 of the Endangered Species Act. The NRC staff used FWS Virginia Field Office's Ecological Services online project review process. The NRC completed the certification process by submitting the online review package to the FWS Virginia Field Office via letter dated October 18, 2016 (ADAMS Accession No. ML16279A448).

III. Finding of No Significant Impact

On the basis of the EA, the NRC has concluded that the proposed license renewal for the Dominion's SNM License Number SNM-2507 for the operation of NAPS specifically licensed ISFSI located in Louisa County, Virginia, will not significantly affect the quality of the human environment. Therefore, the NRC has determined, pursuant to 10 CFR 51.31, that preparation of an EIS is not required for the proposed action and a FONSI is appropriate.

Dated at Rockville, Maryland, this 29th day of January, 2018.

For the Nuclear Regulatory Commission.

/RA/

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