

LICENSE FOR INDEPENDENT STORAGE OF SPENT NUCLEAR FUEL AND HIGH-LEVEL RADIOACTIVE WASTE

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, *Code of Federal Regulations*, Chapter 1, Part 72, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, and possess the power reactor spent fuel and other radioactive materials associated with spent fuel storage designated below; to use such material for the purpose(s) and at the place(s) designated below; and to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations, and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified herein.

Licensee 1. Virginia Electric and Power Company 5000 Dominion Boulevard Glen Allen, Virginia 23060	3. License No. SNM-2507 Amendment No.
2. Old Dominion Electric Cooperative 4201 Dominion Boulevard Glen Allen, Virginia 23060	4. Expiration Date June 30, 2058 5. Docket or Reference No. 72-16

6. Byproduct, Source, and/or Special Nuclear Material	7. Chemical or Physical Form	8. Maximum Amount That Licensee May Possess at Any One Time Under This License
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A. Spent Fuel Assemblies from North Anna Unit 1 & 2 reactors and associated radioactive materials related to receipt, storage and transfer of fuel assemblies.	A. As UO ₂ clad with zirconium or zirconium alloys.	A. 839.04 TeU of spent fuel assemblies
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9. Authorized Use: For use in accordance with the conditions in this license and the attached Technical Specifications. The basis for this license was submitted in the North Anna Independent Spent Fuel Storage Installation (ISFSI) safety analysis report applications dated May 9, 1995, as supplemented May 25, June 8, and July 18, 1995; March 14, 1996; April 14, September 11, October 2, October 9, November 24, December 10, and December 16, 1997; January 23, January 28, January 29 (two letters), January 30, February 17, April 1 (two letters), April 13 (two letters), April 23, April 29, May 18, May 28 (four letters), May 29 and June 19, 1998; April 5, and August 27, 1999; May 28, 2002; January 23, April 4, and May 21, 2003; September 15, 2004; May 27, and November 7, 2014; August 24, October 8, November 18, November 19, December 1, and December 28, 2015; January 14, March 22, March 23, April 21, June 21, July 26, September 23, November 22, 2016; April 10, and June 14, 2017; May 25, 2016; January 20, February 28, June 5, July 10, and August 16, 2017.

The material identified in 6.A and 7.A above is authorized for receipt, possession, storage, and transfer. Storage is authorized only in casks of the TN-32 and the TN-32B HBU designs as described in the SAR.

10. Authorized Place of Use: The licensed material is to be received, possessed, transferred, and stored at the North Anna ISFSI located on the North Anna Power Station site in Louisa County, Virginia, near Mineral, Virginia, as described in the SAR.

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11. The Technical Specifications contained in Appendix A attached hereto are incorporated into the license. The licensee shall operate the installation in accordance with the Technical Specifications in Appendix A. Appendix A contains Technical Specifications related to Environmental Protection.
12. The licensee shall fully implement and maintain in effect all provisions of the ISFSI physical security, guard training and qualification, and safeguards contingency plans and all amendments made pursuant to the authority of 10 CFR 72.56, 10 CFR 72.44(e), and 10 CFR 72.186. The plans, which contain safeguards information protected under 10 CFR 73.21, are entitled: North Anna Power Station, Independent Spent Fuel Storage Installation Physical Security Plan, Revision 3, dated January 29, 1998, and Nuclear Security Personnel Training and Qualification Plan for Surry and North Anna Power Stations, dated October 2, 1997. Changes to these plan revisions shall be made in accordance with 10 CFR 72.186.
13. The Commission's finding that the Quality Assurance Program complies with the requirements of Subpart G is based on the existence of a Quality Assurance Program accepted by the Commission as satisfying the requirements of 10 CFR Part 50, Appendix B. Prior to termination of the Part 50 license for both North Anna Power Station Units 1 and 2, the licensee must submit for Commission approval, a Quality Assurance program for the ISFSI that addresses and satisfies each of the elements of Subpart G.
14. The Commission's finding that the Emergency Plan complies with the requirements of 10 CFR 72.32 is based on the existence of an Emergency Plan accepted by the Commission as satisfying the requirements of 10 CFR 50.47 and 10 CFR Part 50, Appendix E. Prior to termination of the Part 50 license for both North Anna Power Station Units 1 and 2, the licensee must submit, for Commission approval, an Emergency Plan for the ISFSI that addresses and satisfies each of the elements of 10 CFR 72.32.
15. The design, construction, and operation of the ISFSI shall be accomplished in accordance with the U.S. Nuclear Regulatory Commission Regulations specified in Title 10 of the U.S. *Code of Federal Regulations*. All commitments to applicable NRC Regulatory Guides and to engineering and construction codes shall be carried out.
16. Fuel and cask movement and handling activities that are to be performed in the North Anna Fuel and Decontamination Buildings will be governed by the requirements of the North Anna Power Station, Units 1 and 2, Facility Operating Licenses (NPF-4 and NPF-7) and associated Technical Specifications.
17. Pursuant to 10 CFR 72.7, the licensee is hereby exempted from the provisions of 10 CFR 72.124(b) with respect to providing positive means to verify the continued efficacy of the solid neutron absorbing materials. The licensee is also exempted from the requirements of 10 CFR 72.44(d)(3) with respect to the submittal dates for reports of radionuclide effluent releases. The licensee must submit the report required by 10 CFR 72.44(d)(3) for the previous calendar year by May 1 of each year. All other requirements of 10 CFR 72.44(d)(3) must be met. The licensee is exempted from the requirements of 10 CFR 72.72(d) with respect to duplicate storage of spent fuel storage records. The licensee may maintain records of spent fuel and high level radioactive waste in storage either in duplicate as required by 10 CFR 72.72(d) or, alternatively, a single set of records may be maintained at a records storage facility that satisfies the standards of ANSI N45.2.9-1974. All other requirements of 10 CFR 72.72(d) must be met.

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18. Within 90 days of the issuance of the renewed license, the licensee shall submit an updated North Anna ISFSI Safety Analysis Report (SAR) to the Commission and continue to update the SAR pursuant to the requirements in 10 CFR 72.70(b) and (c). The updated SAR shall include the revised North Anna ISFSI SAR Supplement, as documented in Enclosures 3 and 4 of the July 10, 2017, supplement to the license renewal application (Agencywide Document Access and Management System (ADAMS) Accession Number ML17198A023) (hereinafter referred to as the SAR supplement). The licensee may make changes to the SAR, including changes to the SAR supplement, consistent with 10 CFR 72.48(c).
19. Within 180 days of the issuance of the renewed license, the licensee shall create, update, or revise procedures for implementing the activities in the Aging Management Programs (AMPs) documented in Enclosures 1 and 2 of the July 10, 2017, supplement to the license renewal application (Agencywide Document Access and Management System (ADAMS) Accession Number ML17198A023) and described in the SAR supplement. Each procedure shall contain a reference to the specific AMP provision the procedure is intended to implement. The reference shall be maintained even if procedures are modified. The licensee shall maintain procedures that implement the AMPs throughout the term of this license.
20. Storage of high burnup fuel ($\geq 45,000$ MTU/MWD) in one TN-32B HBU cask design is authorized for a period not to exceed 20 years from the date the TN-32B HBU cask is placed in service at the North Anna ISFSI. If the storage period is expected to exceed the authorized storage period of 20 years, the licensee will either remove the cask from service at the ISFSI by the end of the authorized storage period or request an amendment to address this TN-32B HBU cask.
- If an amendment is filed to change this condition and renew the storage period of the TN-32B HBU cask, the licensee shall submit information that will address additional aging management considerations for the high burnup fuel and the TN-32B HBU cask design at least two years prior to the expiration of the authorized 20-year storage period, in accordance with 10 CFR 72.42.
21. This license is effective as of the date of issuance shown below.

FOR THE NUCLEAR REGULATORY COMMISSION

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Hipolito J. Gonzalez, Acting Chief
 Renewals and Materials Branch
 Division of Spent Fuel Management
 Office of Nuclear Material Safety
 and Safeguards
 Washington, DC 20555

Date of Issuance: June 30, 1998
 Renewed License: Dated February 6, 2018
 Attachment: Technical Specifications