

DEPARTMENT OF ENERGY  
DOCKET NO. 72-9  
FORT SAINT VRAIN  
INDEPENDENT SPENT FUEL STORAGE INSTALLATION  
AMENDMENT TO RENEWED MATERIALS LICENSE

Amendment No. 10  
Renewed License No. SNM-2504

1. The U.S. Nuclear Regulatory Commission (Commission), having previously made the findings set forth in License No. SNM-2504 issued on November 4, 1991, has now found that:
  - A. The amended Renewed License No. SNM-2504 complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter 1;
  - B. Actions have been identified and have been or will be taken for (i) managing the effects of aging during the period of extended operation on the functionality of structures and components within the scope of license renewal, and (ii) time-limited aging analyses, such that there is reasonable assurance that the activities authorized by the renewed license will continue to be conducted in accordance with the current licensing basis;
  - C. There is reasonable assurance that (i) the activities authorized by this amended, renewed license can be conducted without endangering the health and safety of the public, and (ii) such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amended renewed license will not be inimical to the common defense and security or to public health and safety; and
  - E. The issuance of this amended renewed license is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the renewed license is amended by the enclosed changes to Renewed Materials License No. SNM-2504, indicated by margin notations.

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

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

Enclosed: Amended Renewed License  
Date of Issuance: March 17, 2016

## 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. Department of Energy	3. Renewed License No. SNM-2504 Amendment No. 10	
2. 850 Energy Drive Idaho Falls, Idaho 83401-1563	4. Expiration Date November 30, 2031 5. Docket or Reference No. 72-09	
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

A. Fuel elements from Fort St. Vrain (FSV) Nuclear Generating Station using thorium and uranium enriched to not greater than 93.15% in the U-235 isotope

B. Transuranium elements, source material, byproduct material, and associated radioactive material related to receipt, storage, and transfer of fuel elements

C. Byproduct and special nuclear material related to receipt, storage, and transfer of fuel elements

A. Irradiated TRISO coated (Th, U)C<sub>2</sub> fuel particles inside graphite fuel elements

B. Irradiated fuel elements, contaminated ISFSI equipment (e.g., fuel storage containers, container handling machine, standby storage wells), depleted uranium shielding materials, and low-level radioactive waste related to receipt, storage, and transfer of fuel elements

C. As calibration discs or sealed sources, without restriction to chemical or physical form, for sample analysis and instrument calibration

A. 1036 Kg uranium and 14,540 Kg thorium initially contained in 1,482 irradiated HTGR fuel elements

B. Quantity contained in 1,482 irradiated HTGR fuel elements, 270 contaminated fuel storage containers, 1 contaminated container handling machine, 3 contaminated storage wells, 3 depleted uranium shielding components of transfer casks, and low-level radioactive waste related to receipt, storage, and transfer of fuel elements

C. Radioactive sources used for sample analysis and instrument calibration

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<b>LICENSE FOR INDEPENDENT STORAGE OF SPENT NUCLEAR FUEL AND HIGH-LEVEL RADIOACTIVE WASTE</b> <b>SUPPLEMENTARY SHEET</b>		Renewed License No. SNM-2504 Docket or Reference No. 72-9	Amendment No. 10

9. Authorized Use: For use in accordance with statements, representations, and the conditions of the Technical Specifications and Safety Analysis Report (SAR) dated December 17, 1996, and supplements dated February 4, February 5, February 18, March 12, March 24, April 2, April 16, April 29, December 10, and December 18, 1997; and February 6, April 7, July 2, July 20, August 24, October 2, October 16 (two letters), November 16, November 19 (two letters), December 1, December 9, and December 24, 1998; and April 27, May 5, May 12, May 13, October 19, and November 24, 1999; and January 18, 2000; and May 24, 2001; November 10, 2009; June 9, 2010; July 30, 2010; August 13, 2010; September 7, 2010; November 9, 2010; November 30, 2010; December 23, 2010, July 18, 2011, and June 13, 2013 and as further supplemented and amended in accordance with 10 CFR 72.70 and 10 CFR 72.48.

The material identified in 6.A, 6.B, 7.A, and 7.B above must be related to spent fuel storage and is authorized for receipt, possession, storage, and transfer. Material identified in 6.C and 7.C above shall be related to spent fuel storage, and is authorized for receipt, possession, storage, transfer, and use.

10. Authorized Place of Use: The licensed material is to be received, possessed, transferred, and stored at the FSV Independent Spent Fuel Storage Installation (ISFSI) located in Platteville, Colorado, as described in the Safety Analysis Report.
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.
12. The licensee shall follow the physical protection plan entitled "DOE-ID Independent Spent Fuel Storage Installation Security Plan," dated October 9, 1998, with subsequent modifications dated December 1, 1998, April 27, 1999, May 24, 2001, and June 30, 2014 and as it may be further amended under the provisions of 10 CFR 72.44(e) and 72.186(b).
13. The repackaging of fuel assemblies is not authorized.
14. For the duration of the license, the licensee shall inform the Director, Office of Nuclear Material Safety and Safeguards, at least 90 days in advance, of the planned replacement of the entity contracted by DOE-ID to perform the management and operation (the M&O contractor) of the FSV ISFSI.

Within 180 days after the replacement of the M&O contractor, the licensee shall assess the performance of the M&O contractor and provide a statement to the NRC verifying that the replacement of the M&O contractor has had no effect on the execution of licensed responsibilities for the FSV ISFSI.

15. DOE shall be responsible for requesting necessary funds from Congress to ensure compliance of FSV operations and decommissioning under this license. DOE will notify the NRC, in writing, of any anticipated or forecasted budget shortfalls, as soon as they are known, along with a plan detailing the specific measures that will be taken by DOE to obtain the required funding and prevent adverse impacts on ISFSI operations.

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		Docket or Reference No. 72-9		

16. This license is effective as of the date of issuance shown below.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

/RA/

Steve Ruffin, Acting Chief  
 Spent Fuel Licensing Branch  
 Division of Spent Fuel Management  
 Office of Nuclear Material Safety  
 and Safeguards  
 Washington, DC 20555

Date of Issuance: July 18, 2011  
 Date of Amendment: March 17, 2016

