

## 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.

1. Department of Energy	3. License No. SNM-2508 Amendment No. 5 Renewed on September 16, 2019
2. U. S. Department of Energy Idaho Operations Office 1955 Fremont Avenue	4. Expiration Date March 19, 2039 5. Docket or Reference No. 72-20

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|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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. Radioactive material from the Three Mile Island Unit 2 (TMI-2) reactor core damaged by the March 28, 1979, reactor accident, including the remains of 177 Babcox and Wilcox 15x15 fuel assemblies with a maximum of 2.98% U-235 isotope, 61 control rod assemblies, and miscellaneous irradiated core and core basket material. | A. As debris consisting of significantly damaged fuel and control assemblies and non-fuel reactor components in the form of partially intact assemblies, conglomerate core material, previously molten materials, rubble, and fines. | A. 82,985.9 kg U initially contained in the fuel assemblies of the damaged TMI-2 reactor core, contained in roughly 139,293 kg of material removed from the TMI-2 reactor vessel. |
| B. Radioactive material related to receipt, storage, and transfer of the above radioactive material, including 267 fuel canisters, 12 knockout canisters, and 62 filter canisters used to confine the above TMI-2 core debris in the absence of intact fuel assembly cladding.                                                     |                                                                                                                                                                                                                                      |                                                                                                                                                                                   |
9. Authorized Use: For use in accordance with the statements, representations, and conditions of the Technical Specifications and Final Safety Analysis Report (FSAR), as updated. The materials identified in 6.A, 6.B, and 7.A above are authorized for receipt, possession, storage, and transfer.

<b>NRC FORM 588A</b> (10-2000) 10 CFR 72	<b>U. S. NUCLEAR REGULATORY COMMISSION</b>	PAGE 2	OF 3 PAGES
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10. Authorized Place of Use: The licensed material is to be received, possessed, transferred, and stored at the TMI-2 ISFSI located at the Idaho National Laboratory within the perimeter of the Idaho Nuclear Technology and Engineering Center site in Scoville, Idaho.
11. The Secretary of Energy has delegated the Deputy Manager, Department of Energy, Idaho Cleanup Project, as the Secretary's authorized representative in all matters regarding this license and future amendments thereto and informed the Commission of this delegation in writing on September 8, 2016.
12. Pursuant to 10 CFR 72.7, the licensee is hereby exempted from the following:
  - a) Requirements of 10 CFR 72.102(f)(1) related to the specified seismic design criteria of 10 CFR Part 100, Appendix A.
  - b) Requirements of 10 CFR 20.1501(d) to use NVLAP accredited dosimetry and instead is authorized to use DOELAP dosimetry.
  - c) Requirement of 10 CFR 72.124(b) that the design of the ISFSI shall provide for positive means to verify the continued efficacy of solid neutron absorbing materials.
13. 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.
14. For the duration of the license, the licensee shall inform the Director, NMSS, at least 90 days in advance, of the replacement of the entity contracted by DOE-ID to perform the management and operation (the DOE contractor) of the TMI-2 ISFSI.
 

Within 180 days after the replacement of the DOE contractor, the licensee shall assess the performance of the DOE contractor and provide a statement to the NRC verifying that the replacement of the DOE contractor has had no effect on the execution of licensed responsibilities for the TMI-2 ISFSI.
15. DOE-ID shall be responsible for requesting necessary funds from Congress to ensure compliance of TMI-2 ISFSI operations and decommissioning under this license. DOE-ID will notify the Nuclear Regulatory Commission, 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-ID to obtain the required funding and/or prevent adverse impacts on ISFSI operations.
16. Within 90 days after issuance of the renewed license, the licensee shall submit an updated FSAR to the Commission and continue to update the FSAR pursuant to the requirements in 10 CFR 72.70(b) and (c). The updated FSAR shall include the revised TMI-2 ISFSI FSAR Supplement, as documented in Appendix C of the "TMI-2 Independent Spent Fuel Storage Installation Application for 10 CFR 72 Specific License Renewal," Revision 3, dated May 21, 2019 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML19150A336) (hereinafter referred to as the FSAR supplement). The licensee may make changes to the FSAR, including changes to the FSAR supplement, consistent with 10 CFR 72.48(c).
17. Within one year after the renewed license effective date, the licensee shall document a program for implementing the activities in the Aging Management Programs (AMPs) described in the FSAR supplement. The program document shall contain a reference to the specific AMP provision(s) that the program document is intended to implement, and the reference shall be maintained even if the program document is modified. The licensee shall maintain the program document throughout the term of this license.

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18. Horizontal storage module (HSM)-15 and its pre-installed dry shielded canister (DSC) overpack shall not be used for spent fuel storage operations.
19. The NUHOMS®-MP187 Multi-Purpose Cask described in the FSAR is prohibited for use as a transfer cask at the TMI-2 ISFSI if the NUHOMS®-MP187 Multi-Purpose Cask was fabricated 20 or more years prior to the proposed date of use.  
  
To use a NUHOMS®-MP187 Multi-Purpose Cask aged greater than 20 years, the licensee shall submit a license amendment request which shall include information that will address aging management considerations for the NUHOMS®-MP187 Multi-Purpose Cask.
20. Transfer cask spacers, if required for DSC retrieval, shall only be used if they are fabricated fewer than 20 years before use.
21. This license is effective as of the date of issuance shown below.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

/RA/

Meraj Rahimi, Chief  
 Renewals and Materials Branch  
 Division of Spent Fuel Management  
 Office of Nuclear Material Safety  
 and Safeguards  
 Washington, DC 20555

Date of Issuance: March 19, 1999

Renewed License: Dated September 16, 2019

Attachment: Appendix - Technical Specifications