CERTIFICATE OF COMPLIANCE FOR SPENT FUEL STORAGE CASKS

The U.S. Nuclear Regulatory Commission is issuing this Certificate of Compliance pursuant to Title 10 of the Code of Federal Regulations, Part 72, "Licensing Requirements for Independent Storage of Spent Nuclear Fuel and High-Level Radioactive Waste" (10 CFR Part 72). This certificate is issued in accordance with 10 CFR 72.238, certifying that the storage design and contents described below meet the applicable safety standards set forth in 10 CFR Part 72, Subpart L, and on the basis of the Final Safety Analysis Report (FSAR) of the cask design. This certificate is conditional upon fulfilling the requirements of 10 CFR Part 72, as applicable, and the conditions specified below.

Certificate No.	Effective Date	Expiration Date	Docket Number	Amendment No.	Amendment Date	Package Identification No.
1004	1/23/95	1/23/2015	72-1004	2	9/5/2000	USA/72-1004

Issued To: (Name/Address)

Transnuclear West Inc.,
39300 Civic Center Drive, Suite 280
Fremont, CA 94538

Safety Analysis Report Title

Transnuclear West, Inc., “Final Safety Analysis Report for the Standardized NUHOMS® Horizontal Modular Storage System for Irradiated Nuclear Fuel”

CONDITIONS

1. Casks authorized by this certificate are hereby approved for use by holders of 10 CFR Part 50 licenses for nuclear power reactors at reactor sites under the general license issued pursuant to 10 CFR Part 72.210 subject to the conditions specified by 10 CFR 72.212 and the attached Technical Specifications.

2. The holder of this certificate who desires to change the certificate or Technical Specifications shall submit an application for amendment of the certificate or Technical Specifications.

3. CASK:

   a. Model Nos. Standardized NUHOMS®-24P and NUHOMS®-52B

   The two digits refer to the number of fuel assemblies stored in the dry shielded canister (DSC), and the character P for pressurized water reactor (PWR) or B for boiling water reactor (BWR) is to designate the type of fuel stored.

   b. Description

   The Standardized NUHOMS® System is certified as described in the Safety Analysis Report (SAR) and in the NRC’s Safety Evaluation Report (SER). The Standardized NUHOMS® System is a horizontal canister system composed of a steel dry shielded canister (DSC), a reinforced concrete horizontal storage module (HSM), and a transfer cask (TC). The welded DSC provides confinement and criticality control for the storage and transfer of irradiated fuel. The concrete module provides radiation shielding while allowing cooling of the DSC and fuel by natural convection during storage. The TC is used for transferring the DSC from/to the Spent Fuel Pool Building to/from the HSM.

The principal component subassemblies of the DSC are the shell with integral bottom cover plate and shield plug and ram/grapple ring, top shield plug, top cover plate, and basket assembly. The shell length is fuel-specific. The internal basket assembly is composed of guide sleeves, support rods, and spacer disks. This assembly is designed to hold 24 PWR fuel assemblies or 52 BWR assemblies. It aids in the insertion of the fuel assemblies, enhances subcriticality during loading operations, and provides structural support during a hypothetical drop accident. The DSC is designed to slide from the transfer cask into the HSM and back without undue galling, scratching, gouging, or other damage to the sliding surfaces.

The HSM is a reinforced concrete unit with penetrations located at the top and bottom of the side walls for air flow. The penetrations are protected from debris intrusions by wire mesh screens during storage operation. The DSC Support Structure, a structural steel frame with rails, is installed within the HSM module to provide for sliding the DSC in and out of the HSM and to support the DSC within the HSM.

The TC is designed and fabricated as a lifting device to meet NUREG-0612 and ANSI N14.6 requirements. It is used for transfer operations within the Spent Fuel Pool Building and for transfer operations to/from the HSM. The TC is a cylindrical vessel with a bottom end closure assembly and a bolted top cover plate. Two upper lifting trunnions are located near the top of the cask for downending/uprighting and lifting of the cask in the Spent Fuel Pool Building. The lower trunnions, located near the base of the cask, serve as the axis of rotation during downending/uprighting operations and as supports during transport to/from the Independent Spent Fuel Storage Installation (ISFSI).

With the exception of the TC, fuel transfer and auxiliary equipment necessary for ISFSI operations are not included as part of the Standardized NUHOMS® System referenced in this Certificate of Compliance (CoC). Such site-specific equipment may include, but is not limited to, special lifting devices, the transfer trailer, and the skid positioning system.

c. Drawings

The drawings for the Standardized NUHOMS® System are contained in Appendix E of the SAR.

d. Basic Components

The basic components of the Standardized NUHOMS® System that are important to safety are the DSC, HSM, and TC. These components are described in Section 4.2 of the SAR.

4. Fabrication activities shall be conducted in accordance with a quality assurance program as described in Section 11.0 of the SAR.

5. Notification of fabrication schedules shall be made in accordance with the requirements of 10 CFR 72.232(c).

6. Not used

7. Not used

8. Not used

9. CHANGES, TESTS, AND EXPERIMENTS:

The holder of this CoC may:

(1) Make changes in the cask design described in the SAR,

(2) Make changes in the procedures described in the SAR, or

(3) Conduct tests or experiments not described in the SAR,

without prior Commission approval, unless the proposed change, test or experiment involves a change in the CoC, an unreviewed safety question, a significant increase in occupational exposure, or a significant unreviewed environmental impact.

A proposed change, test, or experiment shall be deemed to involve an unreviewed safety question:

(1) If the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the SAR may be increased; or

(2) If a possibility for an accident or malfunction of a different type than any evaluated previously in the SAR may be created; or

(3) If the margin of safety as defined in the basis for any Technical Specification or limit is reduced.

10. The holder of this CoC shall maintain records of changes in the cask design and of changes in procedures if the changes constitute changes in the cask design or procedures described in the SAR. The holder of this CoC shall also maintain records of tests and experiments it conducts that are not described in the SAR. These records must include a written safety evaluation that provides the bases for the determination that the change, test, or experiment does not involve an unreviewed safety question. The records of changes in the cask design and of changes in procedures and records of tests or experiments must be maintained until the Commission terminates the certificate.

11. The holder of this CoC shall annually furnish to the Director, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555, a report containing a brief description of changes, tests, and experiments made under Condition 9, including a summary of the safety evaluation of each. Any such report submitted by a holder of this CoC will be made a part of the public record pertaining to this certificate.

12. All Standardized NUHOMS® Systems must be fabricated and used in accordance with CoC No. 1004, Amendment No. 2 except that general licensees may use the Standardized NUHOMS® Systems that were fabricated in accordance with the original CoC or Amendment No.1.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

E. William Brach, Director
Spent Fuel Project Office
Office of Nuclear Material Safety
and Safeguards

Attachment: Technical Specifications

UNITED STATES NUCLEAR REGULATORY COMMISSION