

NUHOMS® HSM-H/HS

Transnuclear's NUHOMS® System offers many important features. The one that sets it apart from any other dry storage system offered in the industry is the design of the concrete overpack and the method of transferring the canister into and out of the overpack.

The HSM-H is an upgraded version of the standard Horizontal Storage Module (HSM), currently deployed at a number of ISFSI sites around the country. The upgraded design offers enhanced shielding performance, increased heat rejection capabilities and enhanced ruggedness for resisting acts of sabotage.

HSM-HS is a high seismic version of HSM-H designed for sites with 1.0g H and 1.0g V seismic accelerations.

Each module is constructed in two pieces, which are delivered separately and installed at the ISFSI. Transnuclear fabricates these components off-site, to minimize the impact on customer sites, then delivers finished segments that do not require any major construction or concrete placements at the ISFSI. Transnuclear also offers an option for assembling the units at each site.

Each HSM is provided with internal heat shields, shield door and DSC support structure. The HSMs are arranged in an array on a load-bearing foundation which consists of a reinforced concrete basemat on compacted engineered fill. The ends of the array include shield walls to provide shielding to keep dose rates ALARA.

The unique design of the HSM allows the canister to be transferred and stored without performing a single critical lift at the ISFSI during initial loading and later when unloading to ship offsite to a DOE repository.

More About Transnuclear, Inc.

For over 40 years, Transnuclear has provided the nuclear industry with premier dry storage and transportation products and services.



In the U.S. today, more used fuel is stored in Transnuclear systems than all other systems combined. By the middle of 2011, more than 700 casks housed over 25,000 assemblies at 31 sites. Customers include utilities, reactor operators and the U.S. government.

In the transportation arena, AREVA operates the largest fleet of transportation casks in the world. AREVA organizes more than 3,000 multi-model shipments of nuclear material each year; more than 70 shipments are in progress at any given time.

Transnuclear's products are marked by the highest standard of safety, uncompromising commitment to quality, and operational dependability. The company is a wholly-owned subsidiary of AREVA Inc., a member of the AREVA Group, the leading worldwide nuclear energy products and services supplier.

Features and Benefits

- No critical lifts at the ISFSI
- Enhanced shielding performance
- Superior seismic capabilities
- Increased heat rejection capabilities
- Enhanced ruggedness for resisting acts of sabotage
- Components are fabricated off-site
- Does not require any major construction at the ISFSI site

Technical Features

Payload:

Stores 24PTH, 61BTH, 32PTH,
32PTH1, 32PTH Type 1, 37PTH, 69BTH

Materials of Construction:

Reinforced Concrete

Carbon Steel

Corrosion Resistant Coatings

Stainless Steel Wire Mesh Screens

Physical Data:

Width – 116”

Length – 248”

Height – 222”

Adjacent modules are in contact with
each other

Maximum Canister Length – 198.5 inches

Weight, Empty – 308,000 lbs

Weight, Loaded (32PTH) – 418,000 lbs

Design Parameters

Maximum Heat Load – 40.8 kW

Maximum Ambient Temperature – 117°F

Minimum Ambient Temperature – 0°F

Seismic Accelerations at Site – 0.37g

Horizontal for HSM-H and 1.0g Horizontal for HSM-HS

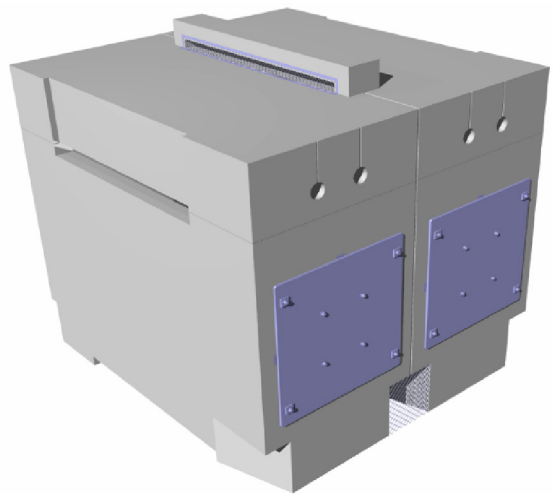
Seismic Accelerations at site – 0.25g Vertical for HSM-H
and 1.0g Vertical for HSM-HS

Maximum Flood – 50 feet at 15 fps

Tornado Wind – 360 mph

Missile Impact

Available under the 1004 and 1030 Licenses



TRANSNUCLEAR, Inc.

Jeffery Isakson, VP, Business Development & Marketing

7135 Minstrel Way, Suite 300
Columbia, MD 21045

Tel: 410 910 6810

Fax: 410 910 6904 — www.transnuclear.com

For more information,

contact your VP, Key Account:

Tel: 434 832 2723 – Fax: 434 832 3840

regional.manager@areva.com – www.us.areva.com

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