

NUHOMS® HSM-H/HS

TN Americas' 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. TN Americas 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. TN Americas 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. An optional feature of the HSM is the addition of the dose reduction hardware to the inlet and outlet vents to further reduce the dose rates.

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.



About TN Americas

TN Americas is a leader in the American nuclear market offering innovative total systems solutions for used fuel and radioactive waste management and transportation. More than 50 percent of American nuclear plant operators use TN's used fuel storage or transport solutions, irradiated waste removal and processing, and pool to pad services.

TN Americas' track record of providing safe storage and transportation of used fuel is driven by state-of-the-art products and services, innovative engineering solutions, and integrity in meeting customer expectations for low-dose and error-free campaigns. TN Americas customers include utilities, reactor operators, research reactors and the U.S. government.

TN Americas' products are marked by the highest standard of safety, uncompromising commitment to quality and operational dependability, and "as promised" service integrity.

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

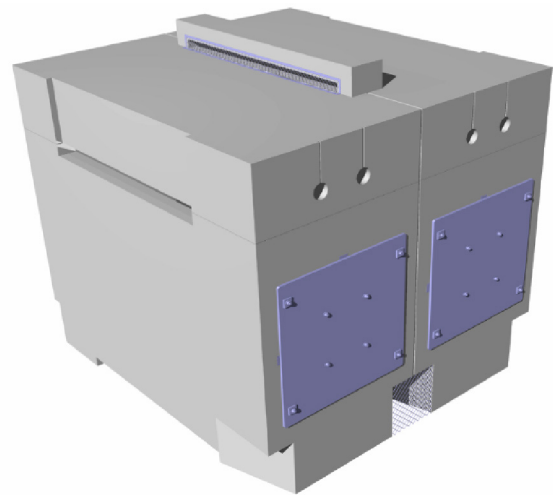
Seismic Accelerations at Site – 0.25g Vertical for HSM-H and 1.0g Vertical for HSM-HS

Maximum Flood – 50 feet at 15 fps

Tornado Wind – 360 mph

Missile Impact

Available under the 1004 and 1030 Licenses



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