**Package Type**

Designed as a self-shielded storage and disposal container for IP-2 and Type B (with overpack) quantities of Intermediate Level Waste (ILW).

Certification

The NuSTORE® design was awarded a Conceptual stage Letter of Compliance (cLoC) by Nuclear Waste Services (NWS), formerly RWM. It is designed to be transported within a Type B Transport overpack, however use of the double lid allows the package to be used as an IP-2 package (pending certification).

Note at present the design has been developed to a conceptual stage level of design.

Description

The NuSTORE® is designed as a robust shielded container for storage and disposal of Intermediate Level Waste (ILW). Manufactured from ductile cast iron (DCI), the container structure provides both shielding and enhanced package performance with minimum reliance contribution from the wasteform.

The NuSTORE® is designed to be compatible with the container only aspects and weight limits specified within the NWS Waste Package Specification WPS/340/01 for the Miscellaneous Beta Gamma Waste Store box. It is designed to accommodate ILW that is intended for disposal within a geological disposal facility (GDF) without the need for any further packaging or treatment. It is also designed to meet NWS disposability requirements after an extended period of on-site storage. A process port is provided for any post-packaging conditioning of contents (optionally further ports can be provided if required).

For transport to a GDF it is intended to overpack the NuSTORE® within a Type B transport container such as the Robust Shielded Box Transport Container (RSBTC).

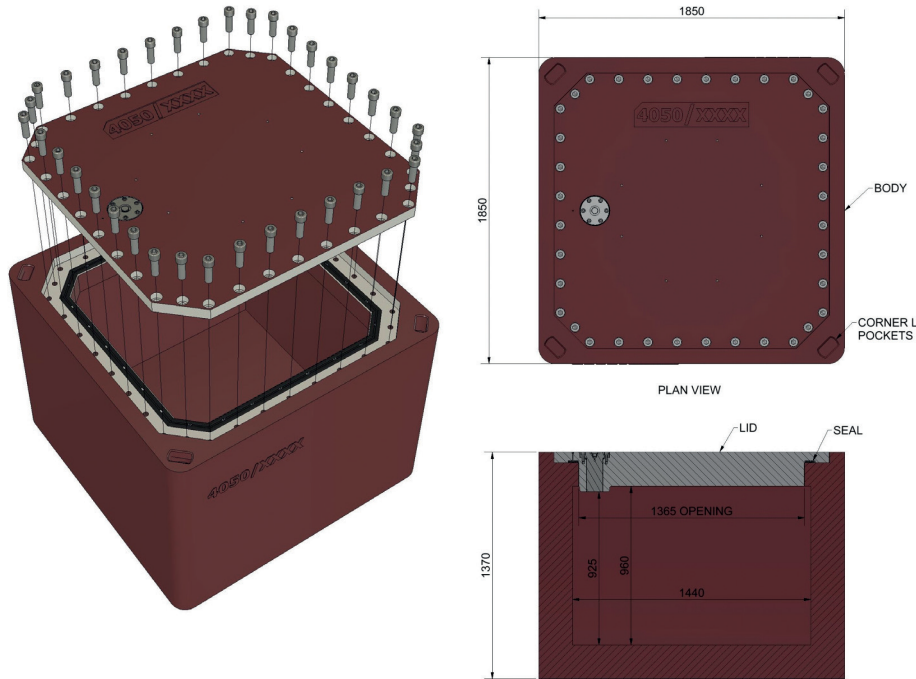
The NuSTORE® can be supplied in a range of shielding wall thicknesses, allowing optimisation against cavity volume and mass for different activity contents. Internal volume and empty weights are given for shielding thicknesses of 100 mm and 200 mm (other thicknesses can be provided on request).

The NuSTORE® can be supplied with a single lid or a double lid (would meet IP-2 packaging standard).

Handling is undertaken using twistlock features located at the top corners of the package.



Section through Package Design No 4049/4050/4051/4052



Containment / Shielding

- Opening can be rectangular or circular.
- Closure via a ductile cast iron shield lid with bolted closure.
- Filtered vent to allow gas release but prevent particulate escape.
- A process port is provided on the shield lid.

Approved Contents

A wide range of solid ILW materials (including unconditioned wastes) could be packaged within the NuSTORE®. Various wall thicknesses of the ductile cast iron are provided to allow shielding to be optimised against maximising cavity volume for different activity contents and optimising filled mass.

Modes of Transport

By road, rail and sea.

Physical Data

Single Lid	Robust Shielded Container Design No 4049 - Single Lid Design No 4051 - Double Lid	Robust Shielded Container Design No 4050 - Single Lid Design No 4052 - Double Lid
Dimensions		
Shield Wall Thickness (mm)	100	200
External Dimensions (W x D x H) (mm)	1850 x 1850 x 1370	
Internal Volume (m ³)	3.1	1.4
Weights		
Tare Weight (tonne)	10	16