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Nuclear waste container

Specification sheet



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Store your radioactive waste safe and efficiently.

* Patent pending

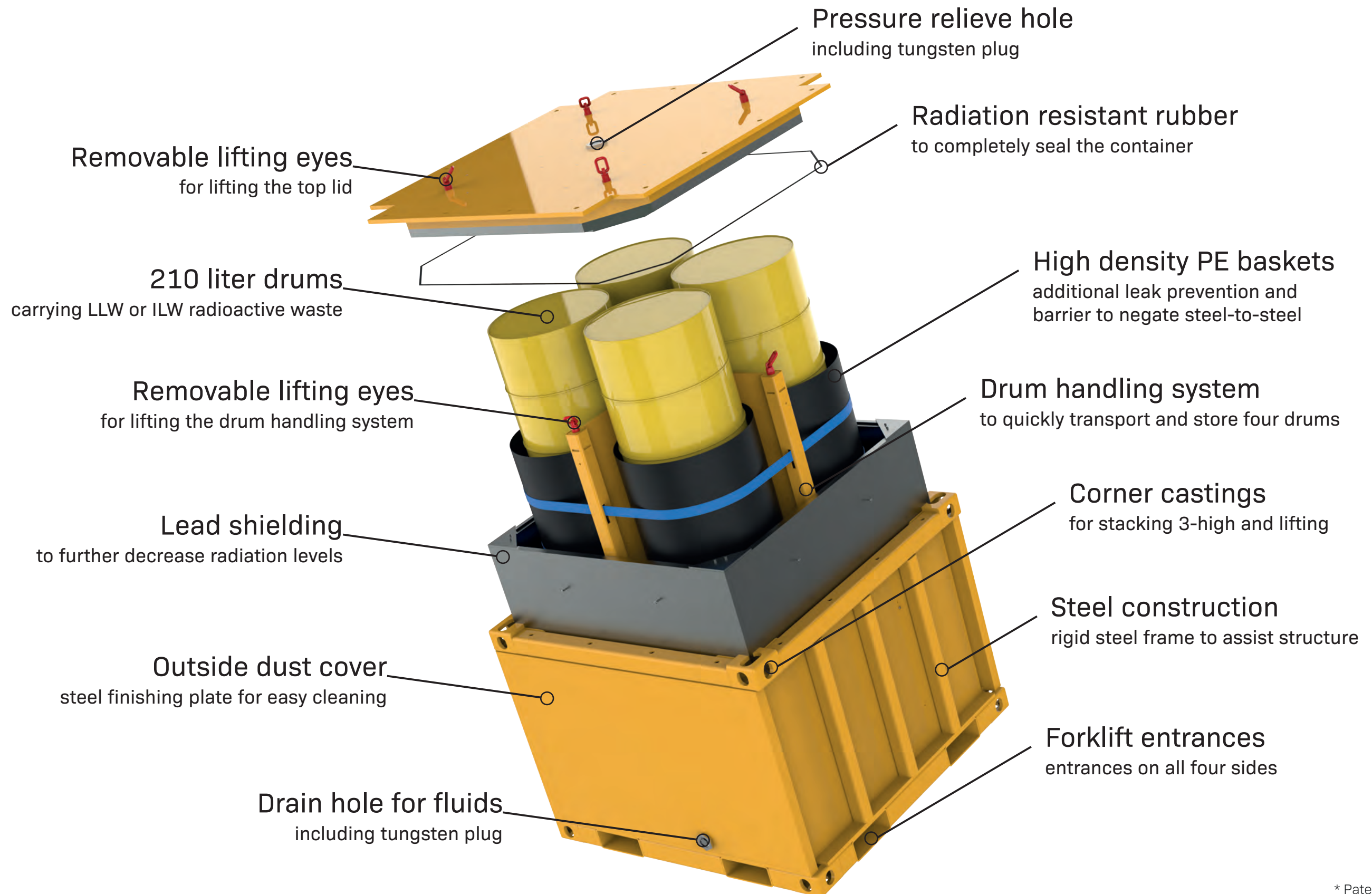


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Nuclear decommissioning waste container

Quick over-/ repacking system



* Patent pending

Nuclear decommissioning waste container

Quick over-/ repacking system

Nuclear Shields designed a nuclear waste container for radioactive waste storage. This nuclear waste container has multiple leak prevention layers to ensure containment of the radioactive materials. This nuclear waste container can be transported using many different methods. The nuclear waste container can be picked up with a heavy forklift on all four sides and with a crane attached to the corner castings. this nuclear waste container can be easily stacked to enable a maximum storage capacity of your radioactive waste depository.

One of the main features of this nuclear waste container is the ability to directly store old or new nuclear waste drums inside the container, which will then serve as a 4-drum overpack. This will add a high level of leak protection for a long period, which will save a lot of money when it has to be completely decommissioned. This container can also be used to directly store radioactive material. All options combined will provide a high level of protection for a long period of time.

- Quick overpacking system
- LLW or ILW in drums or directly into the container
- Multi-layer leak prevention design
- Secure & easy container stacking
- Multiple handling methods

| SPECIFICATIONS | |
|------------------------|---|
| Finishing material | Coated steel |
| Coating | Multi-layer protective coating |
| Color | RAL 1003 (yellow) |
| Tare weight | See table on the right for weights |
| Max payload | 2.800 kg |
| Certifications | IP1 / IP2 (pending on testing) |
| Applicable for | LLW, ILW |
| External dimensions | 1630 x 1630 x 1217 mm |
| Internal dimensions | 1430 x 1430 x 957 mm |
| Volume | 1.95 m³ |
| Max. stacking height | 3 containers |
| Leak prevention layers | Polyethylene boxes (optional), steel inner containment, reinforced outer steel cage, corrosion protective coating |

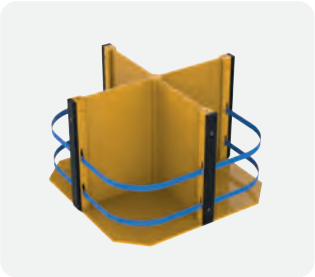
| LEAD | TARE WEIGHT |
|-------|-------------|
| 0 mm | 3.500 kg |
| 10 mm | 4.700 kg |
| 20 mm | 5.800 kg |
| 30 mm | 6.950 kg |
| 40 mm | 8.100 kg |
| 50 mm | 9.200 kg |

PARTS AND OPTIONS



NUCLEAR WASTE CONTAINER
NWC1

Nuclear waste container including 20 mm inner steel box. This nuclear waste container can be easily handled using a forklift or crane.



DRUM HANDLING SYSTEM
NWC1-DHS

Quick and easy overpacking system for four 210L drums. High density PE boxes can optionally be ordered to add an additional leak prevention layer.



HIGH DENSITY PE DRUM BOXES
NWC1-PDB

Set of 4 additional leak prevention boxes made from high density PE that can be inserted into the drum handling system.



CORNER CASTING LIFTING EYES
NWC1-CLE

Set of 4 MK-2 container lifting lugs which are suitable for the vertical lifting of containers with ISO corner castings.



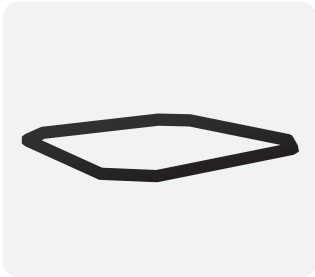
SCREWABLE LIFTING EYES
NWC1-SLE

Set of 4 screwable lifting eyes that can be screwed into the container lid and drum handling system for lifting with a crane.



CONTAINER STACKING CONES
NWC1-CSC

Set of 4 stacking cones that can be secured to the corner casting on the the nuclear waste container to easily stack the containers 3-high.



RADIATION RESISTANT SEAL
NWC1-RRS

James Walker Shieldseal 663 Radiation grade to be used in radioactive environments. This seal will be used to fully seal the nuclear waste container.



PRESSURE RELIEVE HOLE
NWC1-PRV

Hole in the middle of the container lid for pressure release or to insert a detector into the container. Including tungsten plug.



DRAIN HOLE FOR FLUIDS
NWC1-FDH

Hole on the bottom of the container wall for draining fluids. Including tungsten plug.

* Patent pending

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HANDLING

Forklift

This nuclear waste container can be handled with a forklift or a crane. The base of the container has forklift entrances on all four sides, which makes handling this nuclear waste container very flexible.

Crane

Lifting eyes can be attached to the corner castings of the container to lift the container by crane.

Stacking

These nuclear waste containers can be stacked 3-high by inserting container stacking cones into the corner castings.

CORROSION PREVENTION SYSTEM

Multiple leak prevention layers have been added to this nuclear waste container, such as:

1. **Radiation resistant rubber seal**
2. **High density PE drum baskets**
3. **20 mm steel inner box**
4. **Multi-layer coating**
5. **Sealed lead shielding**

Bumpers have been attached to the drum handling system to prevent damage to the coating of the 20 mm thick steel inner box when placing the drums inside the container.

Multi-layer coating

The steel of this nuclear waste container has been coated with a multi-layer epoxy or urethane coating.

1. Primer
2. Undercoating
3. Final paint
4. Flexible life expectancy prolonging coating (opt.)

50-100 years life expectancy.

DRUM HANDLING SYSTEM

Nuclear Shields designed this nuclear waste container to enable quick and easy cleanup, storage and re-/ overpacking operations. The optional drum handling system makes it easy to repack and overpack existing and filled nuclear waste drums for on the spot safe storage.

Handling

Drums that may be damaged or old can be placed inside the cylindrical HDPE tanks on the drum handling system, strapped and lifted into the nuclear waste container by crane. Bumpers have been added to the steel drum handling system to prevent damage to the coating of the steel inner box. The lifting eyes can be screwed off once the drum handling system is placed inside the container.

* Patent pending



**NUCLEAR
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Complete service from design to production.

Image: Lead casting of a shielded cask



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