

Agrichemical Warehousing Standard Association

ACCREDITED SEED TREATMENT STANDARDS BULLETIN

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Guidelines for Portable Storage Containers (inter-modal) Conversion to Accredited Seed Treatment Operation Standards

Portable storage containers for this Bulletin are defined as inter-modal used to transport goods on railcars, trucks and ocean vessels. They come in a wide range of sizes and heights with typical sizes of 2.4 meters (8 feet) in width, up to 16 meters (52 feet) in length and 2.5 meters to 3 meters (8.5 to 10 feet) in height. Basic constructions of these containers are steel walls, roof and floor.

When converting a container for seed treatment product storage all protocols are applicable. The Bulletin was developed to aid operators in the conversion process.

Section A – Siting and Exterior Requirements

- All containers must be in compliance with distance requirements references in protocols A1, A2 and A3.
- All containers must be in compliance with applicable lighting and signage requirements referenced in protocols A4, A5, A6, A7 and A8.

Section B – Building Structure and Equipment

- B5, B6, B9 – Based on typical container configuration protocols will be compliant.
- B1 – Containers must be non-combustible (steel rigid frame). Any combustible materials on the interior walls would have to be removed or constructed to meet a 1-hour fire rating.
- B7 – Metal sheeting is deemed impervious to chemical spill and is deemed compliant. When wooden floor decking in present, the metal sheeting should be attached to the metal frame. For sites pre-audited after March 31, 2015, the metal sheeting must be a minimum of ¼ inches thick.
- B7 – Retention curbing (10 cm) is required for inside containment. In most cases the walls could act as a curb. Curbing would be required at the doors. This can be achieved by placing metal sheeting or angle iron at a height of 10 cm at the doorway. Ensure the curbing is leak proof at the edges (e.g. caulking may be required). Containment could also be achieved using the baffled spill pallets if no curb was installed.
- B11 – The container does not have an active floor drain.
- B12 – Ventilation system must be designed to provide a minimum of 2 air changes per hour. See example of ventilation calculation for the appropriate configuration.
- B14 – The ventilation system must be designed to control explosive vapours.

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- B15 – If heat is required (no flame), electric wall heaters are common, these units would need to be CSA approved, hardwired and at a height in excess of the floor curbing (10 cm).

Protocols that have not been referenced either apply for all seed treatment storage facilities or are not applicable.

Quick Conversion Checklist

- Ensure the container is completely steel (frame, walls, and roof).
- Remove all combustible materials from inside the container or covered for a 1 hour rating.
- Wooden floor decking is permitted provided that the steel plate covers the entire floor area and containment area is a minimum of ¼" thick and is welded to the support beams and or structure.
- Weld steel deck to the floor support beams, if a floor is not present.
- Place storage container on level non-combustible material (e.g. gravel).
- Weld steel angle iron (10 cm) at doorway for internal containment. Ensure containment is leak-proof. (B10)
- Ventilation cut is a maximum 30 cm (12 inch) from the floor at opposite end of container from doors (B14)
- Hard wire lighting, ventilation and heating system (no flame) in container above containment curbing.
- Complete ventilation measurement prior to installing mechanical ventilation to ensure minimum 2-hour air exchange is achieved.
- Raised steel mesh floors can be installed to allow for drive in capabilities to the storage container.
- Container security can easily be achieved by applying a pad lock on doors.