

Fire Prevention Bulletin

Intermodal Container Storage

Intermodal Shipping Containers (i.e. “sea cans”) provide a convenient solution for extra storage space within the community. However, by virtue of their intended use and design, are limited in ventilation which results in significant challenges when exposed to fire. In order to address these issues, the Fire Department requires the following for any container used for general storage purposes:

Ventilation

- Two ventilation openings to be installed:
 - One ventilation opening within 150 mm of the floor in the container door primarily used for opening
 - One ventilation opening within 150 mm from the top of the container on the opposite end from the doors for cross ventilation.
 - Higher opening to have a wind vent device (i.e. turbine) designed to generate a venturi effect during low wind speeds and cannot be directed toward a structure
- Minimum size of the ventilation openings to be:
 - 2 - 300mm by 300mm openings for containers 6m or less
 - 2 - 500mm by 500mm openings for containers over 6m
 - Both openings to covered by open grate wire mesh with greater than 50% free area
- Neither ventilation opening can be obstructed by stored materials at any time and must be kept clean of internal and external debris
- Where class 1A flammable liquids in quantities greater than 4 litres are stored in the shipping container, provisions shall be made to comply with the requirements for withstanding an internal explosion as per the BC Fire Code, BC Building Code and NFPA 68.

Identification

- The container and contents must be identified in the building/site Fire Safety Plan.
- The name of the company/person responsible for the storage and an emergency telephone contact number must be marked on the container in lettering visible from 10 metres.
- UN Placards for all stored dangerous goods must be visible on the two container sides most visible to emergency responders.

Storage

- Storage of dangerous goods requires a building permit application at which time type and quantity of materials stored will need to be provided. Additional engineered solutions may also be required.
- Any service utility (i.e. electrical) to the container requires a building permit application.
- The BC Fire Code applies to storage within Division B - Part 3 and Part 4

City of Maple Ridge Fire Department

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