

GUIDELINES ON FIRE SAFETY REQUIREMENTS FOR MEGA WAREHOUSE

Introduction

1. The purpose of this guidelines is to stipulate the fire safety requirements for Mega Warehouse. These requirements will assist the Qualified Persons when making plan submission pertaining to the design, construction, protection, location and arrangement of the various fire safety provisions.

Definition of Mega Warehouse

2. Mega warehouse is defined as those warehouses having gross cubical extent exceeding 113,600 cubic metre.

Fire safety requirements for Mega Warehouse

Compartment size

3. For Mega Warehouse, the maximum floor area per compartment shall not exceed the following:

	Sprinkler Protection	Without Sprinkler Protection
Cubical Extent	18000 m ³	9000 m ³
Floor Area	3000 m ²	1500 m ²

Compartmentation could be achieved by using fire rated roller shutter and it shall be linked to automatic fire alarm system. The fire rated roller shutter shall be activated by localised fire alarm detector. Activation of the roller shutter to close by fusible link is not allowed.

Access door with external metal or concrete platform

4. Access door with external metal or concrete platform and cat-ladder in place of fire access opening shall be required for the Mega Warehouse. The size of the platform shall be minimum 3m x 2m and it shall be projected from the building wall and installed with safety railing around it. The cat-ladder shall have a minimum clear width of 400mm. This provision shall not be taken as a means of escape for the occupants of the building.

Fixed type of fire extinguisher

5. Notwithstanding the requirements in sub-clause 6.1.1(a) of the Fire Code, where a building is categorised as Mega Warehouse, 50 kg ABC dry powder fire extinguisher shall be provided at any point of the vehicle parking, loading and unloading areas. The coverage distance of the fire extinguishing is 25m and the distance is measured along a route suitable for the hose line.

Sprinkler protection

6. When a building is classified as Mega Warehouse, automatic sprinkler system shall be required if the floor area and cubical extent per compartment exceed 1500 m² or 9000 m³ respectively.

Automatic smoke vents

7. When a building is used as a Mega Warehouse, smoke vents (automatic openable type) which are linked to the building fire alarm system shall be provided in accordance with Clause 7.4.2 of the Fire Code. The numbers and sizes shall be determined by engineered smoke control approach.

Voice communication system

8. Two-way voice communication system shall be provided to the Mega Warehouse.