

Further Information on Non-movable PSEM Store

Other related requirements

- When determining the storage capacity of a non-movable PSEM store and types of PSEM to be stored, the outside safety distance(s) in accordance with the UK Explosives Regulations 2014 (ER2014) or the latest version should be taken into consideration.
- The store should be adequately designed to relevant standards and/or codes of practice, which is certified by an Independent Checking Engineer, i.e. a Registered Structural Engineer who is independent of the designer and the applicant.
- Obtain Buildings Department's approval/agreement for the completion of construction of the store.
- The lightning conductors installed should function properly and comply with BS EN 62305, which is certified by a registered electrical worker and a registered electrical contractor.
- Approval/no-objection should be obtained from:
 - ✧ Hong Kong Police Force relating to security aspects
 - ✧ Fire Services Department relating to firefighting aspects
 - ✧ Environmental Protection Department relating to the environmental aspects of the store.
- No high-tension overhead cables carrying 440 V are within 45 m of the store and no overhead cables of 1 kV or above are within 75 m of the store. All other types of electrical cables should, except for lighting, security and firefighting installation connections, be run underground from a point at least 15 m away the store.
- As far as practicable, the roof of the Non-movable PSEM store should be made of lightweight materials to limit the potential for injury from debris in the event of an explosion.
- Provision of a ready-for-use portable lightning detector.
- Electrical equipment installed inside the store should be explosion-proof.

Construction

- The Authority may approve a non-movable PSEM store of different construction depending on actual situation.

An example of construction is shown below:

- A single storey detached structure made of substantial brickwork, masonry or concrete to a design approved by the Authority in each case.
- The interior and exterior walls of the store should be painted white
- Installation of a security fence surrounding the store with the following characteristics:

- ✧ being set back at a suitable distance from the store (e.g., 6 m).
- ✧ being high enough (e.g., 2.5 m) and stoutly constructed of chain link fencing with a suitable mesh size (e.g., not exceeding 50 mm).
- ✧ being firmly fixed to metal or concrete posts, and topped with an outward overhang of razor wire (e.g., 0.7 m high).
- ✧ the base of the fence located between the posts being secured with pegs to prevent intrusion.
- ✧ No vegetation in the area between the security fence and the Non-movable PSEM store, and on the exterior of the fence (e.g., at least 1 m from the fence).
- ✧ a uniform cross-fall (e.g., at least 1 in 100) away from the store to a drainage system being constructed
- ✧ the entrance gate being fitted with a lock of close shackle design with a key-retention feature and posted with a warning signboard (see Annex A for a typical warning signboard).
- Requirements imposed by the Hong Kong Police Force, e.g., installation of a CCTV system, provision of electric flood lighting and a guard house.
- Requirements imposed by the Fire Services Department, e.g., positioning specified types and quantity of firefighting equipment, and installation of automatically triggered firefighting systems.