

**Cultural and Creative Industries Development Agency**  
**Entertainment Special Effects Licensing Authority**  
**Guidance Notes No. 7**

**Requirements for a Non-Movable PSEM Store**

1. Under section 23 of the Entertainment Special Effects Ordinance (Cap. 560), no person shall store any pyrotechnic special effects materials (PSEM) at any place other than the location in respect of which a store licence has been issued. A PSEM store is classified into two types: “non-movable PSEM Store” and “movable PSEM Store”.
2. Normally it is less complicated and less stringent to apply for a movable PSEM store licence than a non-movable one to store PSEM in terms of requirements and restrictions. However, in some cases such as in theme parks, bulk storage of PSEM (e.g., more than 200 kg NEQ) may be required owing to operational need and a non-movable PSEM store is therefore required in this situation.
3. A non-movable PSEM Store shall conform to the following requirements (see appendix for further information):
  - built with fire resistant materials
  - no exposed ferrous metal in the exterior or interior
  - capable of being securely locked
  - rigid and large enough to store the PSEM in a safe manner
  - the door of the store is painted in red with the words “DANGER – PYRO MATERIALS 危險 – 煙火物料” in white (at least 100 mm high) or in a manner that is approved by the Authority.
  - equipped with a security alarm system and fire service installations and equipment to the satisfaction of the Authority
  - the store or the building in which the store constitutes a part has an efficient lightning conductor
  - a design approved by the Authority
4. It shall only contain the types of PSEM specified in the licence, subject to the maximum licensed capacity. It shall not contain other dangerous goods. Due to compatibility requirements, PSEM that are not compatible shall not be stored in the same store. Binary system pyrotechnic materials shall be stored separately from the PSEM.

5. All proper precautions shall be taken to prevent:
  - fire and explosion in the store
  - unauthorised persons from obtaining access to the store.
6. No smoking or naked light in the store, and also 15m within the PSEM store.
7. The store, when containing any PSEM, shall be kept securely locked unless access to the store is required. It shall be provided with suitable fire extinguishing equipment at readily accessible locations as required by the Authority. The maximum NEQ of PSEM to be stored, the maximum number of personnel permitted to enter the store, appropriate warning signs e.g., placards, a warning signboard (see Annex A for a typical warning signboard), and emergency procedures including contact details and escape route shall be posted in a conspicuous place of the store.
8. A licensed Special Effects Operator shall be engaged as the operator-in-charge during the validity period of the store licence. A replacement shall be appointed when the operator-in-charge is absent from Hong Kong for more than 28 consecutive days and the store contains PSEM.
9. The licensee and the operator-in-charge shall also comply with the requirements specified under the Entertainment Special Effects (General) Regulation, including:
  - a stock book, for recording the movement of stock and the associated information, shall be kept. A sample of stock book can be downloaded from the following link:  
(<https://esela.ccidahk.gov.hk/en/licence/ESELA%20Application%20Form%202019.pdf>)
  - each entry in the stock book shall be certified as correct by the holder of the store licence or the operator-in-charge
  - the stock books and all documents relating to the PSEM held in the store shall be kept for a minimum of 3 years
  - the current volume of the stock book shall be kept in the store
  - at each month end, a stock balance for each type of PSEM shall be recorded in the stock book and certified as correct by the operator-in-charge
  - the operator-in-charge shall inspect the store once a month and record in the stock book the findings of the inspection
10. Preparation of a store management plan, which covers but not limited to:
  - storage capacity of the store and types of PSEM to be stored
  - location and construction details of the store including means of ventilation
  - personnel to be involved in the management of the store and their responsibilities
  - details of authorized persons permitted to enter the store

- stock control
- ordering and delivery of PSEM
- operation procedures including handling and transport procedures
- safety and security measures
- arrangements for delivery and handling of PSEM during inclement weather
- arrangements for misfired products and destruction of PSEM
- emergency procedures including contact details and escape route
- investigation and incident reporting

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### 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.

**Typical Warning Signboard for a Non-movable PSEM store**

警告

WARNING

嚴禁攜帶以下物品進入圍網範圍內：

The following articles or substances are prohibited inside the security fenced area:

<p>火柴或火機</p>  <p>Matches or lighter</p>	<p>香煙或煙草</p>  <p>Cigarette or tobacco</p>	<p>酒精類飲品</p>  <p>Alcoholic liquor</p>	<p>流動電話，傳呼機 或無線電話發射器</p>  <p>Mobile phone, pager or radio transmitter</p>
<p>燃料或溶劑 [貯於密封容器除外]</p>  <p>Fuel or solvent not in a tank or container</p>	<p>槍械及軍火 [緊急事故除外]</p>  <p>Firearm except for emergency</p>	<p>未經批准爆炸品</p>  <p>Unauthorized explosives</p>	<p>食物或飲料</p>  <p>Food or drink</p>

1. A warning signboard (min. 500 mm x 500 mm) showing the above prohibited articles and substances in symbols, and in Chinese and English characters should be posted at the gate of the security fence.
2. Each symbol in red and black should be at least 100 mm in diameter.