

# **Guidance Note on How to Apply for a Mode A Store Licence for Storage of Blasting Explosives**



**Mines Division, Geotechnical Engineering Office  
Civil Engineering and Development Department**

## **1. Introduction**

- 1.1 This Note provides guidance on how to apply for a Mode A Store Licence for storage of blasting explosives. The guidance relates principally to surface Mode A Stores, but relevant aspects also apply to underground Mode A Stores.
- 1.2 The Dangerous Goods Ordinance (DGO), Hong Kong Laws Chapter 295, stipulates that no person shall store any explosives (i.e. Category 1 dangerous goods) except with a Licence issued by the Commissioner of Mines. Only explosives approved by the Commissioner of Mines can be stored in a Mode A Store.
- 1.3 A Mode A Store means a store constructed in accordance with the provisions on regulation 11 of Cap. 295B of the Dangerous Goods (General) Regulations.
- 1.4 The Chief Geotechnical Engineer/Mines (CGE/Mines), GEO/CEDD, acting for the Commissioner of Mines, processes applications and issues Licences for Mode A Stores.
- 1.5 The guidance given in this note does not cover legal, regulatory or administrative requirements under the authority of other departments, including the Environmental Protection Department, the Hong Kong Police Force, Buildings Department and the Fire Services Department. The Applicant must fulfil such requirements, where applicable, before the Commissioner of Mines issues a Mode A Store Licence.

## **2. Application for a Mode A Store Licence for Storage of Blasting Explosives**

### **2.1 Submission of Application**

The Applicant requiring a Mode A Store Licence must submit the following documents to the Commissioner of Mines:

- (a) a covering letter, stating clearly the reasons why a Licence is required, and a properly completed application on Form Min/be/f1 (the form can be downloaded from the CEDD web site, <http://www.cedd.gov.hk/eng/forms/index.htm>); and
- (b) a Method Statement (MS), prepared by a competent person, giving the construction details and the operation procedures of the proposed Mode A Store (see Annex 1 for the typical contents of a MS). For private projects, the MS must be checked by a competent supervisor and endorsed by the AP/RSE/RGE; for Government projects it must be checked by a competent supervisor and endorsed by the Engineer's Representative for the Contract. The competent person and competent supervisor should have at least 4 years relevant experience in blast design and supervision of blasting works.

### **2.2 Processing of Application**

Upon receipt of an application for a Mode A Store, CGE/Mines will normally respond to the Applicant within 28 days or within 25 days after receipt of subsequent submissions of missing/supplementary information. When CGE/Mines is satisfied with the information and documents submitted with the application, including the MS, and verifies that the proposed site is suitable for a Mode A Store, the Commissioner

of Mines will issue pre-licensing requirements to the Applicant. The Applicant must fulfil these requirements, which include construction of the store, before a Mode A Store Licence can be issued (see Annex 2 for typical pre-licensing requirements). The agreed MS also forms part of the Licence conditions.

### 2.3 Issue of Licence

The Applicant must confirm, in writing, to the Commissioner of Mines when the Store has been completed and the other pre-licensing requirements have been fulfilled. CGE/Mines will then check to ensure satisfactory completion of the pre-licensing requirements. Once this has been confirmed, the Commissioner of Mines will issue a Mode A Store Licence to the Applicant. A separate Licence will be issued for each surface Mode A Store. For an underground Mode A Store, the scope of the Licence will be based on the actual site conditions and the agreed Store management plan. The Licence will be valid for a specific period, which will not be more than 1 year, and it will be issued to the Applicant within 3 working days upon payment of the prescribed licence fee. The Licensee is required to keep a copy of the licence at the Mode A Store site.

### 2.4 Annual Renewal of Licence

Application for renewal of a Mode A Store Licence must be made not less than 28 days before the expiry date of the current Licence. The renewal application must include an updated MS, taking account of any changes to the site conditions and operation procedures of the Mode A Store, and the annual maintenance certificates for all necessary fire fighting installations, lightning conductors and equipment endorsed by suitably qualified competent persons.

## 3. References

- AS (1998). Explosives – Storage, Transport and Use, Part 1: Storage. Australian Standard, AS2187.1-1998.
- BSI (1999). Code of Practice for Protection of Structures against Lightning. British Standards Institution, BS6651:1999.
- DOD (2004). D.o.D. Ammunition and Explosives Safety Standards. The Department of Defence, Washington, D.C.
- HSE (2005). Manufacture and Storage of Explosives Regulations 2005: Statutory Instrument No. 1082. United Kingdom Health and Safety Executive.
- Mines Division Guidance Notes. CEDD Website:  
[http://www.cedd.gov.hk/eng/services/mines\\_quarries/mqd\\_mdgn.htm](http://www.cedd.gov.hk/eng/services/mines_quarries/mqd_mdgn.htm)

**Mines Division**  
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*General guidance is provided in this Note. The Commissioner of Mines may impose additional requirements. Feedback on this document or enquiries relating to Mode A Store Licences should be sent to: Chief Geotechnical Engineer/Mines, Geotechnical Engineering Office, Civil Engineering and Development Department, 25/F, 410 Kwun Tong Road, Kwun Tong, Kowloon, Hong Kong.*

**Telephone: (852) 2716 8666 Facsimile: (852) 2714 0193 E-mail: [mines@cedd.gov.hk](mailto:mines@cedd.gov.hk)**

**Typical Contents of a Method Statement (MS)**

- (a) Details of the proposed storage capacity of the Mode A Store and the types of explosives to be stored. (For surface Mode A Stores, the HSE (2005) should be used to assess the suitability of the proposed storage capacity. For underground Mode A Stores, reference can be made to AS (1998) and DOD (2004), but detailed requirements must be agreed with CGE/Mines, GEO, CEDD taking account of local constraints and conditions. To minimise risks to the public and security of all Mode A Stores, the storage capacity should be kept to the minimum required for the project.)
- (b) A 1:500 or 1:1,000 scale plan showing the location and site boundary of the proposed Mode A Store. The plan(s) must show clearly, and identify, all structures, buildings, roads, utilities (including high-tension cables), slope features, natural terrain hazards and any other potential affected parties within a 400 m radius of the proposed Mode A Store or a radius compatible with the proposed storage capacity based on the requirement given in HSE (2005), whichever is greater.
- (c) A plan with an appropriate scale showing the location of the proposed blast areas where explosives from the Mode A Store are to be supplied and the proposed routes for delivery of explosives from the Mode A Store to the blast areas, and the return routes in case any surplus explosives need to be returned to the store.
- (d) A copy of the explosive manufacturer's current Material Safety Data Sheets for the types of explosives to be stored.
- (e) The construction details of the Mode A Store structure and the security compound (see Annex 3 for typical construction requirements).
- (f) A Store management plan covering:
  - (i) stock control;
  - (ii) ordering and delivery of explosives;
  - (iii) security;
  - (iv) operational flowchart;
  - (v) handling and transport procedures;
  - (vi) list of authorised persons permitted to enter the Store; and
  - (vii) emergency plan.
- (g) An emergency contact list, including the contact details of the Licensee's Representative, Resident Site Staff, the Registered Shotfirer, the explosives supplier, and the Safety Officer.

**Typical Pre-licensing requirements for issuing of a Mode A Store Licence**

- (a) For a public works project, a certificate for the completion of the proposed explosives store, signed by a Registered Professional Engineer (Civil or Structural) and the Engineer's Representative for the Contract. For a private project, a copy of Buildings Department's (BD) approval/agreement for the completion of construction of the store in accordance with the approved plans.
- (b) Training records for all personnel (including drivers of approved explosives delivery vehicles) involved in the transport, handling and storage of explosives and supervising the safety and security of explosives for the site. The training course, typically organised by the Applicant and explosives supplier, should cover:
  - (i) the dangers related to the type of explosives being transported, handled and stored;
  - (ii) emergency procedures in case of accidents;
  - (iii) safe driving practice;
  - (iv) safe handling of explosives; and
  - (v) use of fire extinguishers and fire fighting procedures.
- (c) A certificate signed by a registered electrical worker and a registered electrical contractor certifying that the lightning conductors function properly and comply with BSI (1999).
- (d) Details of the vehicles to be used for the transport of explosives. If the vehicles are used for transport of the explosives outside the project site boundary, the vehicles must meet the requirements in Mines Division's Guidance Note on "Requirements for Approval of an Explosives Delivery Vehicle".
- (e) Confirmation that a warning sign board has been erected at a conspicuous location on the security fence (see Annex 4 for a typical warning sign board).
- (f) Confirmation that a full up-to-date set of the Material Safety Data Sheets for the explosives to be kept is available at the Store and that it will be maintained up to date.
- (g) Confirmation that the Shotfirer has been provided with a portable lightning detector for use during the handling and transport of explosives.
- (h) Confirmation that the Hong Kong Police Force has approved the security aspects of the Store, including the security company providing armed security guards and the standing instructions for management/administration of the Store.
- (i) Confirmation that the Fire Services Department has approved the fire fighting aspects of the Store.
- (j) Confirmation that the Environmental Protection Department has issued the Environmental Permit for the Project, including the proposed Mode A Store.
- (k) Confirmation that no high-tension overhead cables carrying 440V are within 45 m of a surface Store/portal area of an underground Store and that no 1 KV overhead cables are within 75 m of the Store/portal area, and that all other types of electrical cables should, except for lighting and fire fighting installation connections, be run underground from a point at least 15 m away from the Store.

**Typical construction, security and fire fighting requirements for a Mode A Store**

- (a) The store should consist of a single storey detached structure made of substantial brickwork, masonry or concrete to a design approved by the Commissioner of Mines in each case.
- (b) The following typical construction details are available from the Mines Division upon request:
  - (i) layout and details of the building for a surface Mode A Store;
  - (ii) the lightning conductor;
  - (iii) the outer and inner door; and
  - (iv) earth mound surrounding a surface Mode A Store.
- (c) All hinges and locks should be made of non-ferrous metal.
- (d) No ferrous metal should be left exposed in the interior of the Mode A Store.
- (e) The interior and exterior walls of the Mode A Store should be painted white.
- (f) The outer steel doors of the Mode A Store should be painted red. The words “DANGEROUS – EXPLOSIVES” and “危險 – 爆炸品” should be written in white on the outside of each door. The letters and characters should be at least 100 mm high.
- (g) A security fence surrounding the Mode A Store should be installed and set back at least 6m from the Store. The fence should be 2.5 m high, stoutly constructed of chain link fencing with a mesh size not exceeding 50mm. The fence should be firmly fixed to metal or concrete posts and topped with a 0.7 m high outward overhang of razor wire. The base of the fence located between the posts should be secured with pegs to prevent intrusion.
- (h) The area between the security fence and the Mode A Store should be cleared of all vegetation. Vegetation clearance should also apply to a minimum distance of 1m on the exterior of the fence. A uniform cross-fall of at least 1 in 100 away from the Store to a drainage system should be constructed.
- (i) Electric flood lighting supported on light poles at a maximum spacing of 20 m along the security fence, should be provided to illuminate the area between the Mode A Store and the security fence and the area directly outside the security fence.
- (j) The gate in the security fence should be fitted with a lock of close shackle design with a key-intention feature. A warning signboard with prohibited articles and substances painted in red and black, shown in symbols and in Chinese and English characters should be posted at the gate. Each symbol should be at least 100 mm in diameter. A typical warning signboard is shown in Annex 4.
- (k) A guardhouse should be provided. For surface Mode A Store, security guards should be on duty outside the inner security fence adjacent to the gate when there is no receipt or issue of explosives inside the Mode A Store. A separate outer security fence should be installed to protect this guardhouse. For underground Mode A Store, the guardhouse should be positioned inside the security fence to guard the entrance gate and the portal to the underground magazine.
- (l) Inside the guardhouse, an arms locker constructed as an integral part of the house and fitted with a lock is required.

- (m) A telephone should be provided for use by the guard in the guardhouse.
- (n) A watchdog should normally be provided for the store.
- (o) The road leading to the Mode A Store should have a concrete surface and it should be constructed and maintained so that 11 tonne trucks can use it under all weather conditions. A suitable turning circle or other alternative means for these trucks to turn should be provided so that the trucks can be driven up to the gate of the security fence.
- (p) For surface Mode A Stores, fire fighting installations consisting of at least four 6 litre foam and one 4.5kg dry powder fire extinguishers to be positioned on two racks and four buckets of sand should be provided at the nearest convenient locations to the Mode A Store doors. For underground Mode A Stores, fire fighting installations should be determined in consultation with Fire Services Department.
- (q) The Hong Kong Police Force and the Fire Services Department may require additional site-specific security provisions and fire fighting installations, e.g. CCTV and automatically triggered fire fighting systems.

Typical Warning Sign Board for Mode A 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 sign board (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.