

Mines Division Practice Note No. 1 (MDPN 1)
Delivery of Blasting Explosives and Related Safety and Security Procedures

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1. SCOPE

- 1.1 This practice note is intended primarily as information for contractors who use the explosives delivery service provided by Mines Division of the Geotechnical Engineering Office (GEO), Civil Engineering and Development Department (CEDD). It also provides useful information to project offices, developers and their consultants who wish to use explosives for blasting in their projects.
- 1.2 Any feedback on the content of this practice note should be directed to the Chief Geotechnical Engineer/Mines, GEO, CEDD.

2. RELATED DOCUMENTS

- 2.1 Dangerous Goods Ordinance (DGO), Cap. 295
- 2.2 Dangerous Goods (Government Explosives Depots) Regulations (DG(GED)R), Cap. 295D
- 2.3 Dangerous Goods (Application and Exemption) Regulation 2012 (DG(A&E)R 2012), Cap. 295E
- 2.4 Dangerous Goods (Control) Regulation (DG(C)R), Cap. 295G
- 2.5 Guidance Note on How to Apply for a Mode A Licence for Storage of Blasting Explosives
https://www.cedd.gov.hk/filemanager/eng/content_682/GN8_Eng.pdf
- 2.6 Mines Division Practice No. 2 (MDPN 2): Explosives and PSEM Storage in Government Explosives Depots
https://www.cedd.gov.hk/filemanager/eng/content_681/practice_note_mdpn2_issue_1.pdf

3. DELIVERY OF EXPLOSIVES

- 3.1 The Kau Shat Wan Government Explosives Depot is located on Lantau Island. Explosives stored at the depot are delivered daily (in the morning) by a Government explosives delivery vessel to designated barging points. Government explosives delivery vehicles (EDVs) then convey the explosives to blasting sites or site magazines (Mode A stores).

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- 3.2 Prior to the commencement of blasting works, the contractor must agree with Mines Division an area on their site designated for unloading explosives from the EDVs, establish the expected delivery time for the explosives, and provide the necessary resources to receive the explosives when they are delivered. Depending on the site conditions, the contractor may also be required to provide additional safety, security and protective measures at the designated unloading area. Blasting works should be scheduled according to the expected delivery time.
- 3.3 If explosives need to be delivered to a site at a time outside the normal delivery hours (11:00am to 2:00pm), the contractor should approach Mines Division as early as possible to make a special delivery request. Whether the request can be accommodated will depend on the number and location of active blasting sites and the resources available at the time.
- 3.4 For tunnel blasting works and other sites with special requirements, the contractor may apply to Mines Division to set up a site magazine (a Mode A store) for the temporary storage of explosives. The use of a site magazine may give the contractor more flexibility in scheduling blasting works. To avoid difficulties during the construction stage of a project, the project office/developer and their consultants should assess the need for a site magazine in the planning stage of a blasting project. If a magazine would be beneficial, they should resolve, as far as possible, all regulatory, administrative and technical issues before letting the contract. For more information, refer to Mines Division's guidance note on "How to apply for a Mode A licence for storage of Schedule 1 dangerous goods (blasting explosives)".
- 3.5 If for any reason the contractor cannot use the explosives on the day that they are delivered, or store them in a site magazine, the contractor must notify Mines Division immediately and take action in accordance with the contingency plan given in the method statement, which forms part of the discharge (blasting) permit conditions, to ensure the security and safety of the explosives. Mines Division may be able to provide temporary storage of the unused explosives in a Government explosives depot, on the basis that the explosives are in safe condition and in the packing used for the original delivery. The contractor shall bear the costs of delivery to and from, and storage in, the Government explosives depot.
- 3.6 Mines Division delivery team will contact the contractor if it is anticipated that there will be a significant delay in the delivery of explosives, e.g. due to adverse traffic or weather conditions. Should the delay be such that the contractor considers it is not feasible to complete loading and firing of the scheduled blast(s) and there is no site magazine to store the explosives, the contractor must inform Mines Division delivery team so that delivery of the explosives can be postponed to the next working day.

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- 3.7 The charges for storage of explosives in a Government explosives depot and for delivery of explosives from the depot to a blasting site or a site magazine can be found in the Schedule to the DG(GED)R.

4. APPLICATION FOR EXPLOSIVES DELIVERY

4.1 Application for Delivery of Blasting Explosives to a Site

- 4.1.1 Only a discharge (blasting) permit holder is permitted to apply for delivery of blasting explosives by Mines Division to a site. The application must be submitted via the Centralised Explosives Licensing and Management System (CELMS) (celims.cedd.gov.hk) of Mines Division or email (mines@cedd.gov.hk) to Mines Division, together with the following information:

- (a) a list of explosives and accessories, including a full description of type, size and quantity of the products required;
- (b) the name of the registered shot firer; and
- (c) technical information: site plan, blast location (plan and sections), blast design, including depths and patterns of drill holes, charge loading details, delay and connection details, protective measures, evacuation, road closure and monitoring requirements etc., specific to the blast.

The above information must be prepared by the blasting engineer and registered shot firer, checked by the blasting competent supervisor, and endorsed by all parties.

- 4.1.2 All the information as stated in para. 4.1.1 must reach Mines Division by 5:00pm, two working days in advance of the intended blast. Mines Division will check the submitted information, particularly the blasting design and the protective measures specific to the proposed blast, for compliance with the approved method statement under the relevant discharge (blasting) permit. The applicant must answer all queries raised by Mines Division in relation to the application before 11:00am Monday to Friday or 9:30am on Saturday, one working day in advance of the intended blast. Failure to submit any of the required information or to answer satisfactorily the queries raised by Mines Division by the time specified above will result in the application being rejected.

4.2 Application for Delivery of Blasting Explosives to a Site Magazine

- 4.2.1 Only the licensee of a Mode A store is permitted to apply for delivery of blasting explosives by Mines Division to a site magazine. The application must be submitted via CELIMS (celims.cedd.gov.hk) or email (mines@cedd.gov.hk) to Mines Division, together with the following information:

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- (a) a list of explosives and accessories, including a full description of type, size and quantity of the products required; and
 - (b) the daily balance of the site magazine (Mode A store).
- 4.2.2 All the information as stated in para. 4.2.1 must reach Mines Division, and the applicant must answer all queries raised by Mines Division in relation to the application, before 11:00am Monday to Friday or 9:30am on Saturday, one working day in advance of the day of the intended delivery. Failure to submit any of the required information or to answer satisfactorily the queries raised by Mines Division by the time specified above will result in the application being rejected.

4.3 Application for Issue of Explosives from a Government Explosives Depot

- 4.3.1 Once the application for the delivery of blasting explosives by Mines Division is approved, the applicant in para. 4.1 or 4.2 (or their explosives suppliers) except for applications via CELIMS must apply for the issue of explosives from the Government explosives depot by means of an electronic issue voucher. Alternatively, the applicant may submit an application based on a blast design pending approval, but, if necessary, will need to revise the application in accordance with the approved design and any conditions imposed. Details of how to apply for issue of explosives from a Government explosives depot, as well as how to cancel or amend an order to issue explosives, are given in MDPN 2.

5. SAFETY AND SECURITY

- 5.1 On arrival of the explosives at a site, the discharge (blasting) permit holder's designated representative (a registered shot firer) must check and count the explosives against the information shown on the conveyance permit(s) and issue voucher(s), in the presence of a Mines Division representative (an Explosives Officer) and a resident explosives supervisor (RES), a member of the resident site staff registered with Mines Division (or an escorting security guard (ESG) if there is no RES for the project). Any anomalies between the information given on the delivery documents and the explosives received must be brought to the attention of the Explosives Officer supervising the delivery operation immediately, and the matter must be resolved satisfactorily before the discharge (blasting) permit holder's representative takes possession of the explosives.
- 5.2 The registered shot firer who checks and counts the explosives must sign the conveyance permit(s) and issue voucher(s) to confirm that the type and quantity of explosives received match the information given on the delivery documents. The Explosives Officer and the RES/ESG must also check and countersign the conveyance permit(s) and issue voucher(s) to confirm that they have witnessed the checking and counting process and that it has been completed satisfactorily.

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- 5.3 If the explosives are not for temporary storage in a site magazine, loading of explosives into the blast holes must commence immediately, and firing take place as soon as practicable.
- 5.4 The discharge (blasting) permit holder must allow adequate time and resources to complete the drilling of blast holes and put all the required protective measures properly in place before arrival of explosives on site. Prior to commencement of blasting works, the discharge (blasting) permit holder should undertake trials to assess the time and resources needed for the preparation work.
- 5.5 For safety and security reasons, firing of opencast blasting must take place before sunset, unless otherwise permitted by Mines Division.
- 5.6 The RES (or ESG if there is no RES for the project) must remain on site to check that all the explosives and blasting accessories delivered are either used, destroyed, stored in a site magazine or returned to a Government explosives depot for temporary storage.
- 5.7 Unused explosives, e.g. small quantities of explosives left over from a blast, may be destroyed on site by the registered shot firer, in accordance with procedures set out in the method statement, and witnessed by the blasting engineer and RES (or ESG if there is no RES for the project). Safety procedures recommended by the manufacturer must be followed in the destruction of the explosives.
- 5.8 The discharge (blasting) permit holder must report any incident (e.g. a misfire, flyrock, injuries or damage to structures), including potentially sensitive issues relating to explosives or blasting (e.g. the loss of explosives), immediately to Mines Division.
- 5.9 The discharge (blasting) permit holder and registered shot firer are responsible for the safety and security of all explosives on a site. In the event of an incident, they must take all necessary steps to protect public safety, and the safety and security of explosives, in accordance with the method statement and, for matters not specifically covered by the method statement, competent judgment.

6. INCLEMENT WEATHER

- 6.1 During inclement weather, e.g. a widespread thunderstorm, the Chief Explosives Officer (CExpO), the Senior Explosives Officer (SExpO) or the Depot Manager of Kau Shat Wan Explosives Depot (DM/KSW) of Mines Division will decide by 9:00am whether or not the delivery of explosives on that day is to be postponed, and inform the discharge (blasting) permit holder accordingly. If in doubt, the discharge (blasting) permit holder should check with the CExpO, SExpO or DM/KSW by telephone after 9:00am. In the event that a tropical cyclone warning signal No. 3 or higher is issued by the Hong Kong Observatory, or when the red or black rainstorm warning is in force,

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delivery of explosives for the day may be postponed to the working day after the cancellation of the warning.

- 6.2 When the blasting site is affected by inclement weather, e.g. a thunderstorm or heavy rain, the discharge (blasting) permit holder is permitted to postpone the delivery of his explosives order for one working day, by informing the CExpO, SExpO or DM/KSW by phone before 9:00am.
- 6.3 When postponement of explosives delivery is due to inclement weather, as described in para. 6.1 and 6.2, Mines Division will arrange for the subsequent delivery of the same explosives order at no extra charge.

7. ENQUIRIES ON EXPLOSIVES DELIVERY

	Telephone No.
Chief Explosives Officer	3842 7241
Senior Explosives Officer	3842 7242
Explosives Officer I/Explosives Depot 1 (DM/KSW)	2984 0855
Explosives Officer I/Delivery	3842 7246
Emergency Contact (outside office hours)	8103 0722
CELIMS (Hotline)	3842 7210

(Jessie KWONG Shun-man)
for Commissioner of Mines