

Control of Blasting

Blasting in private building works is subject to control under the Buildings Ordinance (Cap 123) and Dangerous Goods Ordinance (Cap 295).

Buildings Ordinance

2. Under Building (Construction) Regulations 20 and 23, authorised persons/registered structural engineers (APs/RSEs) responsible for site formation or foundation works involving blasting shall ensure that any blasting carried out will not adversely affect the stability of slopes, retaining walls, buildings and structures through ground vibrations or other effects.

3. If blasting is to be carried out as part of site formation, deep excavation, or foundation works, a Blasting Assessment prepared by an engineer qualified and experienced in blast design and control of blasting should be submitted together with the relevant site formation, lateral support or foundation plans. The contents of a Blasting Assessment are given in Appendix A. The following should be indicated on the plans :

- (a) details of control criteria;
- (b) monitoring details;
- (c) requirements for submission of regular reports and other related documents; and
- (d) a note as to whether there is any part of the site where blasting is not allowed.

4. The curricula vitae of the engineer who prepared the Blasting Assessment should be included in the submission. Generally, supervision by the said engineer will be required to verify the assumptions in the Blasting Assessment.

Dangerous Goods Ordinance

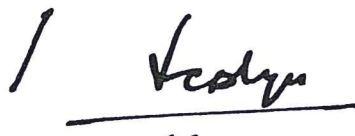
5. Dangerous Goods (General) Regulation 46 stipulates that no person shall carry out any blasting without the permission of the Authority, ie the Commissioner of Mines in the Civil Engineering Department. Where rock blasting is required in a private construction project, a contractor has to apply for a blasting permit from the Commissioner of Mines who may impose conditions requiring the contractor to take mitigation measures against flyrock and to use suitable blasting designs and techniques to comply with the control criteria shown in the approved plans.

Demolition Works

6. When explosives are proposed to be used in demolition works, a specialist experienced in this type of works must be employed to prepare the required Appraisal Report and Method Statement and to supervise the operation.

Mass Transit Railway Structure

7. Guidelines for assessing the effects of blasting on Mass Transit Railway structures are given in Practice Notes for Authorized Persons and Registered Structural Engineers 77. The "General Specification for Civil Engineering Works (Hong Kong Government)", available for purchase from the Government Publications Sales Centre, also provides technical standards on blasting.



(Helen C P Lai YU)
Building Authority

Ref. : BD GP/BREG/C/29

First issued June 1995 (AD/LM and GGE/I)

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Contents of a Blasting Assessment

- (a) Site geology and the condition of existing structures, slopes, retaining walls and services;
- (b) Assessment of the stability of existing structures, slopes and retaining walls under the effects of blasting;
- (c) Proposals for preventive and precautionary measures to be implemented to ensure stability and integrity of the affected structures, slopes, retaining walls and services both during blasting and in the long term;
- (d) Outline blast design to demonstrate the practicability of satisfying any constraints imposed under (c) above;
- (e) Proposals for instrumentation and monitoring of the effects of blasting; and
- (f) Details of site supervision to ensure professional input during the blasting works by the engineer who prepared the Blasting Assessment.