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**Code of practice for the safe use of
explosives in the construction industry**

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Summary of pages

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Foreword

Publishing information

This British Standard is published by BSI Standards Limited, under licence from The British Standards Institution, and came into effect on 31 October 2017. It was prepared by Technical Committee B/513, *Construction equipment and plant, and site safety*. A list of organizations represented on this committee can be obtained on request to its secretary.

Supersession

This British Standard supersedes BS 5607:1998, which is withdrawn.

Information about this document

This British Standard sets out good practice for the handling, transport and storage of explosives during the varied uses to which explosives can be put by the construction industry. Emphasis throughout the standard is on safety, particularly the safety of those engaged in using explosives for work on site and the safety of others who can be in the vicinity of that work.

While the importance of security is recognized, this British Standard does not give detailed recommendations for security measures.

This is a full revision of the standard, and introduces the following principal changes:

- elements of text have been updated to reflect changes in the statutory regulations applicable to the use of explosives;
- recommendations have been updated to reflect changes in technology since 1998; and
- greater emphasis is given to the qualifications and general competence of shotfirers and explosives engineers.

Hazard warnings

WARNING. This British Standard calls for the use of substances and/or procedures that can be injurious to health and safety if adequate precautions are not taken. It refers only to technical suitability and does not absolve the user from legal obligations relating to health and safety or the acquisition, handling or storage of explosives at any stage.

Use of this document

As a code of practice, this British Standard takes the form of guidance and recommendations.

It should not be quoted as if it were a specification and particular care should be taken to ensure that claims of compliance are not misleading.

Any user claiming compliance with this British Standard is expected to be able to justify any course of action that deviates from its recommendations.

It has been assumed in the preparation of this British Standard that the execution of its provisions will be entrusted to people appropriately qualified, experienced and authorized people who are competent in explosives operations, including handling explosives, blast design or approval of blasting procedures (see [Clause 8](#)), for whose use it has been produced.

Presentational conventions

The provisions of this standard are presented in roman (i.e. upright) type. Its recommendations are expressed in sentences in which the principal auxiliary verb is “should”.

Commentary, explanation and general informative material is presented in smaller italic type, and does not constitute a normative element.

The word “should” is used to express recommendations of this standard. The word “may” is used in the text to express permissibility, e.g. as an alternative to the primary recommendation of the clause. The word “can” is used to express possibility, e.g. a consequence of an action or an event.

Notes and commentaries are provided throughout the text of this standard. Notes give references and additional information that are important but do not form part of the recommendations. Commentaries give background information.

Where words have alternative spellings, the preferred spelling of the Shorter Oxford English Dictionary is used (e.g. “organization” rather than “organisation”).

Contractual and legal considerations

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with a British Standard cannot confer immunity from legal obligations.

In particular attention is drawn to the following specific regulations:

- The Explosives Act 1875 [1];
- The Explosives Act (Northern Ireland) 1970 [2];
- The Health and Safety at Work etc. Act 1974 [3];
- The Health and Safety at Work (Northern Ireland) Order 1978 [4];
- The European Agreement concerning the International Carriage of Dangerous Goods by Road 2017 (ADR) [5];
- The Construction (Design and Management) (CDM) Regulations 2015 [6];
- The Construction (Design and Management) Regulations (Northern Ireland) 2016 [7];
- The Explosives Regulations 2014 (as amended) [8];
- The Management of Health and Safety at Work Regulations 1999 [9];
- The Management of Health and Safety at Work Regulations (Northern Ireland) 2000 [10];
- The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013 (RIDDOR) [11];
- The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (Northern Ireland) 1997 [12];
- The Health and Safety (Safety Signs and Signals) Regulations 1996 [13];
- The Health and Safety (Safety Signs and Signals) Regulations (Northern Ireland) 1996 [14];
- The Control of Substances Hazardous to Health Regulations 2002 [15];
- The Quarries Regulations 1999 [16];
- The Quarries Regulations (Northern Ireland) 2006 [17];
- The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (as amended) [18];
- The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations (Northern Ireland) 2010 [19];
- The Dangerous Substances and Explosives Atmospheres Regulations 2003 [20];

- The Ammonium Nitrate Materials (High Nitrogen Content) Safety Regulations 2003 [21];
- The Manufacture and Storage of Explosives Regulations (Northern Ireland) 2006 [22];
- The Dangerous Goods in Harbour Areas Regulations 2016 [23];
- The Dangerous Substances in Harbour Areas Regulations (Northern Ireland) 1991 [24];
- The Control of Major Accident Hazards Regulations 1999 [25];
- The Identification and Traceability of Explosives Regulations (Northern Ireland) 2010 [26].

NOTE 1 These regulations are regularly amended, so it is necessary to ensure that the latest version of each is applied. Attention is drawn to local regulations in overseas jurisdictions.

NOTE 2 All legislative requirements relating to explosives in Great Britain form “relevant statutory provisions” as defined in the Health and Safety at Work etc. Act 1974 [3].

Section 1: Preliminary processes

1 Scope

This British Standard gives recommendations for the safe storage, handling, transport and use of blasting explosives and accessories in construction and demolition operations.

[Section 1](#) covers general recommendations for handling and safety.

[Section 2](#) is concerned with safety in the use of explosives in special applications and situations such as tunnelling, demolition, excavation and underwater working.

This British Standard is not applicable to:

- a) blasting on offshore oil and/or gas platforms or structures, or any associated works;
- b) underground works carried out for the purpose of exploiting mineral reserves and extensions to voids left following ore extraction, which are governed by mining legislation;
- c) operations involving the use of cartridge-operated fixing tools, which are specified by BS EN 15895 and whose use is covered by BS 4078-1.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes provisions of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

Standards publications

BS 5930, *Code of practice for ground investigations*

BS 5975, *Code of practice for temporary works procedures and the permissible stress design of falsework*

BS 6031, *Code of practice for earthworks*

BS 6164, *Code of practice for health and safety in tunnelling in the construction industry*

BS 6187:2011, *Code of practice for full and partial demolition*

BS 6472 (both parts), *Guide to evaluation of human exposure to vibration in buildings*

BS 7385-1, *Evaluation and measurement for vibration in buildings — Part 1: Guide for measurement of vibrations and evaluation of their effects on buildings* (withdrawn)

BS 7385-2, *Evaluation and measurement for vibration in buildings — Part 2: Guide to damage levels from groundbourne vibration*

BS EN 13763-26:2004, *Explosives for civil uses — Detonators and relays — Part 26: Definitions, methods and requirements for devices and accessories for reliable and safe function of detonators and relays*

BS EN 16228 (all parts), *Drilling and foundation equipment — Safety*

ISO/DIS 19296, *Mining and earthmoving machinery — Mobile machines working underground — Machine Safety*