

2006 No. 204

HEALTH AND SAFETY

Quarries (Explosives) Regulations (Northern Ireland) 2006

Made - - - - *2nd May 2006*

Coming into operation - *1st August 2006*

To be laid before Parliament

ARRANGEMENT OF REGULATIONS

1. Citation and commencement
2. Interpretation
3. Application
4. Operator's duties
5. Supervision of shotfiring and trainee shotfirers and records of appointment
6. Shotfirer's duties
7. Misfires
8. Prohibited activities
9. Exemptions
10. Revocation
11. Amendment

The Secretary of State makes the following Regulations in exercise of the powers conferred by Articles 17(1), (2), (3)(a), (5)(b) and 55(2) of, and paragraphs 1(1), 2, 5, 13, 15, 19 and 20(b) of Schedule 3 to, the Health and Safety at Work (Northern Ireland) Order 1978(a) as applied and modified by Article 53 of that Order.

In accordance with Article 46(1)(b) of that Order, he is giving effect without modifications to proposals submitted to him by the Health and Safety Executive for Northern Ireland(c) under Article 13(1A)(d) of that Order.

In accordance with Article 46(3) of that Order, the Executive has consulted any bodies which appeared to it to be appropriate.

(a) S.I. 1978/1039 (N.I.9)

(b) Article 46 was amended by S.I. 1998/2795 (N.I. 18), Article 6(1) and Schedule 1, paragraphs 8 and 18

(c) Formerly the Health and Safety Agency for Northern Ireland; see S.I. 1998/2795 (N.I. 18), Article 3(1)

(d) Article 13(1A) was substituted by S.I. 1998/2795 (N.I. 18), Article 4

Citation and commencement

1. These Regulations may be cited as the Quarries (Explosives) Regulations (Northern Ireland) 2006 and shall come into operation on 1st August 2006.

Interpretation

2. In these Regulations—

“appoint” in relation to a person means appoint in writing with a written statement summarising his duties and authority;

“competent” in relation to a person means a person with sufficient training, experience, knowledge and other qualities to enable him properly to undertake the duties assigned to him;

“detonator” means an initiator for explosives that contains a charge of high explosive fired by means of a flame, spark, electric current or shock tube;

“excavation” means any place at the quarry where minerals are or have been extracted and includes the ground, faces or sides of the quarry and any other incline;

“exploder” means a device designed for firing detonators;

“explosive” means an explosive article or explosive substance;

“explosive article” means an article containing one or more explosive substances;

“explosive substance” means—

(a) a solid or liquid substance, or

(b) a mixture of solid or liquid substances or both,

which is capable by chemical reaction in itself of producing gas at such a temperature and pressure and at such a speed as could cause damage to surroundings or which is designed to produce an effect by heat, light, sound, gas or smoke or a combination of these as a result of non-detonative self-sustaining exothermic chemical reactions;

“explosives” means explosive articles or explosive substances;

“explosives store” means—

(a) premises registered in accordance with section 21 of the Explosives Act 1875^(a) (“the 1875 Act”);

(b) a store licensed in accordance with section 15 of the 1875 Act; or

(c) a magazine licensed in accordance with sections 6 to 8 of the 1875 Act;

“misfire” means an occurrence in relation to the firing of shots where—

(a) testing before firing reveals broken continuity which cannot be rectified; or

(b) a shot or any part of a shot fails to explode when an attempt is made to fire it;

“operator” in relation to a quarry means the person in overall control of the working of the quarry;

“quarry” has the meaning assigned to it by the Quarries Regulations (Northern Ireland) 2006^(b);

“safety fuse” means a flexible cord that contains an internal burning medium by which fire is conveyed at a continuous and uniform rate for the purpose of firing plain detonators or black powder, without initiating burning in a similar fuse that may be in lateral contact;

“shot” means a single shot or a series of shots fired as part of one blast;

“shotfirer” means a person appointed pursuant to regulation 4(2)(a)(ii) to be responsible for shotfiring operations;

“shotfiring operations” include—

(a) 1875 c.17

(b) S.R. 2006 No. 205

- (a) checking to ensure that the blasting specification is still appropriate for the site conditions at the time the blasting is to take place;
- (b) mixing explosives;
- (c) priming a cartridge;
- (d) charging and stemming a shothole;
- (e) linking or connecting a round of shots;
- (f) withdrawal and sheltering of persons;
- (g) inspecting and testing a shotfiring circuit;
- (h) firing a shot; and
- (i) checking for misfires;

“trainee shotfirer” means a person appointed pursuant to regulation 4(2)(a)(ii) to undergo training in shotfiring operations under the close personal supervision of a shotfirer; and

“vehicle” means any mechanically propelled vehicle (including mechanically propelled plant).

Application

3. These Regulations shall apply to the storage, transport and use of explosives at a quarry to which the Quarries Regulations (Northern Ireland) 2006 apply.

Operator’s duties

4.—(1) The operator shall—

- (a) ensure, so far as is reasonably practicable, that all explosives are stored, transported and used safely and securely;
- (b) appoint one or more competent individuals to organise and supervise all work at the quarry involving the use of explosives (“the Explosives Supervisor”);
- (c) ensure that at no time is there more than one person acting as the Explosives Supervisor at the quarry; and
- (d) keep a copy of the written statement of duties of the person or persons appointed under paragraph (1)(b) for at least twelve months after the date on which the appointment ceased to have effect.

(2) It shall be the duty of the operator to ensure that—

- (a) there are suitable and sufficient written rules and procedures for—
 - (i) shotfiring operations at the quarry;
 - (ii) appointing shotfirers, trainee shotfirers and storekeepers;
 - (iii) authorising other persons who will be involved with the storage, transport or use of explosives;
 - (iv) dealing with misfires; and
 - (v) ensuring, so far as is reasonably practicable, that such rules and procedures are complied with;
- (b) an adequate written specification (whether produced by him or not) is prepared for each shotfiring operation at the quarry to ensure, so far as is reasonably practicable, that when such firing occurs it will not give rise to danger; and
- (c) a copy of the specification referred to in sub-paragraph (b) is given to any person upon whom it imposes duties.

(3) The operator shall ensure that operations involving the storage, transport or use of explosives are carried out by—

- (a) a duly authorised and competent person; or
- (b) a trainee under the close supervision of a duly authorised and competent person.

- (4) The operator shall ensure that—
- (a) such facilities and equipment as are necessary to enable shotfiring operations to be carried out safely are provided;
 - (b) any vehicle which is provided for use in relation to shotfiring operations is so marked as to be readily identifiable from a distance;
 - (c) detonators are stored in separate containers from other explosives; and
 - (d) explosives are kept at all times either in a locked explosives store or under the constant supervision of a suitable person.
- (5) The operator shall ensure, so far as is reasonably practicable, that each shotfiring operation is carried out safely and in accordance with the rules required to be made in pursuance of paragraph (2)(a) and any specification required to be prepared in pursuance of paragraph (2)(b).

Supervision of shotfiring and trainee shotfirers and records of appointment

- 5.—(1) The operator shall take all reasonable steps to ensure that—
- (a) a trainee shotfirer at the quarry does not fire shots and is not required to fire shots, except when he is under the close personal supervision of a shotfirer, until the operator is satisfied that he has completed a suitable period of training and has appropriate practical experience; and
 - (b) all shotfiring operations are carried out under the close personal supervision of the shotfirer.
- (2) The operator shall ensure that a record of the appointment at the quarry of any shotfirer or trainee shotfirer is kept at a suitable place until three years after that shotfirer's employment or trainee shotfirer's employment at the quarry ends.

Shotfirer's duties

6. Before a shot is fired, a shotfirer shall—
- (a) check the shotfiring system or circuit to ensure that it has been connected correctly;
 - (b) where electrical detonators are used, ensure that they have been correctly connected to the shotfiring system or circuit and that the shotfiring system or circuit is tested with an instrument suitable for the purpose from a position of safety;
 - (c) where appropriate, ensure that the electrical integrity of the shotfiring system or circuit is such as to make a misfire unlikely; and
 - (d) ensure that the shot is fired from a safe place.

Misfires

7. In the event of a misfire the operator shall consult the individual appointed under regulation 8(1)(c) of the Quarries Regulations (Northern Ireland) 2006 (if this is not the same person) and shall ensure, so far as is reasonably practicable, that—
- (a) apart from himself, no person other than the Explosives Supervisor, shotfirer, trainee shotfirer or any other person authorised by him enters the danger area until a period of five minutes has elapsed since the misfire and any shotfiring apparatus has been disconnected from the shot;
 - (b) appropriate steps are taken to determine the cause of and to deal with the misfire;
 - (c) a suitable record is kept of the misfire for at least three years; and
 - (d) appropriate steps are taken to prevent theft of the explosives and detonators or their initiation by an unauthorised person.

Prohibited activities

8.—(1) A person other than a person appointed by the Chief Constable, an inspector appointed by the Health and Safety Executive for Northern Ireland and the Secretary of State as an Explosives Inspector, a person engaged in the transport of explosives to or from the quarry, a shotfirer, a trainee shotfirer, a person authorised to handle explosives at a quarry or a person appointed to be in charge of the explosives store shall not handle explosives at a quarry.

(2) A person shall not bring any substance or article (other than explosives) likely to cause an unintended explosion or fire within ten metres of any explosives or take any naked flame within ten metres of any explosives.

(3) A person shall not forcibly remove any detonator lead or other system for initiating shots from a shothole after the shothole has been charged and primed.

(4) A person shall not charge or fire a shot—

- (a) unless there is sufficient visibility to ensure that work preparatory to shotfiring, the shotfiring operation and any site inspection after the shot is fired can be carried out safely;
- (b) in a shothole which has previously been fired, unless he is dealing with a misfire in accordance with action taken in pursuance of regulation 7(b); or
- (c) in any tunnel or other excavation (not being merely a shothole) in the face or side of the quarry for the purpose of extracting minerals or products of minerals.

(5) A person shall not fire a shot—

- (a) unless he is a shotfirer or trainee shotfirer; and
- (b) other than by means of a suitable exploder;

and for the purpose of this regulation, a safety fuse shall not be deemed to be a suitable exploder.

Exemptions

9.—(1) Subject to paragraph (2), the Secretary of State may, by a certificate in writing, exempt any quarry, part of a quarry or class of quarries, any person or class of persons or any operation or class of operations from all or any of the prohibitions and requirements of these Regulations, and any such exemption may be granted subject to conditions and to a limit of time and may be revoked at any time by a further certificate in writing.

(2) The Secretary of State shall not grant any such exemption unless, having regard to the circumstances of the case and in particular to—

- (a) the conditions, if any, which he proposes to attach to the exemption; and
- (b) any other requirements imposed by or under any enactment which apply to the case,

he is satisfied that the health and safety of persons who are likely to be affected by the exemption will not be prejudiced in consequence of it and that the security of explosives or detonators will not be so prejudiced.

Revocation

10. The Quarries (Explosives) Regulations (Northern Ireland) 1991(a) are hereby revoked.

Amendment

11. The Carriage of Explosives Regulations (Northern Ireland) 2006(b) regulation 2(1), for the definition of “quarry” there shall be substituted the following definition—

(a) S.R. 1991 No. 233
(b) S.R. 2006 No. 182

“quarry” has the meaning assigned to it by regulation 3 of the Quarries Regulations (Northern Ireland) 2006; .

Northern Ireland Office
2nd May 2006

Peter Hain
One of Her Majesty’s Principal Secretaries of State

EXPLANATORY NOTE

(This note is not part of the Regulations)

1. These Regulations impose requirements with respect to health and safety in the keeping, transport and use of explosives in quarries as defined and supersede the provisions of the Quarries (Explosives) Regulations (Northern Ireland) 1991.

2. The Regulations give effect in relation to quarries to Council Directive 92/104/EEC (O.J. No. L404, 31.12.92. p.10) concerning minimum requirements for improving the health and safety protection of workers in surface and underground mineral extracting industries with respect to—

- (a) Articles 3.1(a), (b), (c) and (d); and
- (b) in Part A of the Annex, Points 1.3 to 1.7, Section 5 and Section 8, in so far as they relate to explosives.

3. The Regulations—

- (a) require the operator to ensure the safe storage, transport and use of explosives; to appoint an explosives supervisor; ensure that suitable shotfiring rules and specifications are drawn up and followed, that explosives workers are competent, that appropriate facilities and equipment are provided, and that explosives are stored safely (regulation 4);
- (b) require the operator to ensure that shotfiring operations and trainee shotfirers are closely supervised and that records of appointment are made (regulation 5);
- (c) impose duties on the shotfirer (regulation 6);
- (d) require the operator to take specified steps in relation to misfires and prohibit specified activities in relation to explosives (regulations 7 and 8);
- (e) provide that the Secretary of State may grant exemptions from any requirement or prohibition of the Regulations in specified circumstances (regulation 9); and
- (f) revoke the Quarries (Explosives) Regulations (Northern Ireland) 1991 and amend the Carriage of Explosives (Northern Ireland) Regulations 2006 (regulations 10 and 11).