## **EXPLANATORY NOTE**

## (This note is not part of the Regulations)

1. These Regulations ("the Regulations") impose a series of requirements and prohibitions in relation to the use of explosives and associated material and equipment in safety-lamp mines. In so doing, they replace a number of Regulations relating to the use of explosives in coal mines and in other mines where flammable gas is likely to be present, which Regulations have been revoked or, where appropriate, modified.

**2.** The expressions "explosives" and "safety-lamp mine" are, together with other words and phrases used in the Regulations, defined in regulation 2(1).

- 3. Regulation 4–
  - (a) requires the manager of a safety-lamp mine to appoint shotfirers at the mine and enables him to appoint trainee shotfirers there;
  - (b) requires him to ensure that records are made of such appointments;
  - (c) specifies the qualifications a person must have before being appointed as a shotfirer under the Regulations; and
  - (d) prohibits a person's wages depending on the number of shots he fires or the amount of mineral obtained by such shots.
- 4. Regulation 5-
  - (a) requires the manager of a safety-lamp mine to ensure that-
    - (i) no explosives or associated equipment are provided for use or used at the mine unless they are safe and, in certain cases, of a type approved by the Health and Safety Executive,
    - (ii) equipment provided for use in connection with shotfiring operations at the mine is properly maintained and is stored when not in use,
    - (iii) exploders are regularly cleaned, overhauled and tested and are only issued when the most recent of such tests proves them to be satisfactory,
    - (iv) a record is made each time an exploder is overhauled or tested as aforesaid,
    - (v) the issue, use and return of explosives and associated equipment is properly controlled, and
    - (vi) a record is made each time explosives and associated equipment are issued, used or returned;
  - (b) imposes restrictions on persons-
    - (i) issuing or using material or equipment in connection with shotfiring operations, and
    - (ii) using carriages, containers or certain vehicles to keep or carry explosives and associated equipment;
  - (c) prohibits persons from tampering with explosives and associated equipment; and
  - (d) requires shotfirers to take certain precautionary steps if they consider any exploder to be defective.

**5.** Regulation 6 requires persons who handle or use explosives and detonators, or who supervise their handling or use, to treat them with care and keep them apart until used to prime cartridges.

- 6. Regulation 7 requires the manager of a safety-lamp mine-
  - (a) to take all reasonable steps to ensure that explosives and detonators at the mine are stored, handled and used safely and securely; and
  - (b) to ensure that (except as provided below) explosives and detonators are stored only at an explosives store.

However, the manager may under regulation 7(3) to (5) designate places for the temporary storage underground of explosives brought from an explosives store pending their use in connection with shotfiring operations. He may also under regulation 7(6) designate places above ground for the temporary storage of unused explosives and detonators pending their return to an explosives store following shotfiring operations.

7. Regulation 8 requires the manager of a safety-lamp mine to make rules for the purpose of ensuring the safe and secure conduct and control of, first, bulk movements of explosives at the mine and, second, movements of detonators to and from explosives stores there.

- **8.** Regulation 9–
  - (a) requires the manager of a safety-lamp mine to ensure that no container is issued at the mine unless it has a serial number unique to that mine;
  - (b) prohibits persons from issuing explosives or detonators unless they are locked in containers or, alternatively (in the case of explosives only), locked in carriages;
  - (c) requires persons issuing containers of explosives or detonators to ensure that they hold specified material only; and
  - (d) prohibits persons having control of containers of explosives or detonators from placing specified extraneous material in them.
- 9. Regulation 10-
  - (a) requires the manager of a safety-lamp mine to arrange for the adequate control of explosives left unused there at the end of a shotfirer's shift;
  - (b) prohibits persons from issuing or taking control of containers of explosives except in connection with their duties at the relevant mine;
  - (c) specifies the persons who may open containers of explosives or handle explosives; and
  - (d) specifies what a person who has been issued with a container of explosives may do with the explosives concerned.
- 10. Regulation 11 specifies-
  - (a) the persons who–
    - (i) may have charge of containers of detonators, and
    - (ii) may open containers of detonators or handle detonators;
  - (b) the circumstances in which detonators may be removed from containers other than at explosives stores;
  - (c) what shotfirers and trainee shotfirers who have been issued with containers of detonators must do with such containers in the course of their respective periods of duty; and
  - (d) what shotfirers and trainee shotfirers must do with any detonators issued to them which remain unused at the end of their respective periods of duty.
- 11. Regulation 12 provides that nothing in the Regulations is to be taken as preventing-

- (a) a person who finds explosives or associated material from taking them to a competent person; or
- (b) the competent person concerned from receiving those explosives or that material.

**12.** Regulation 13 requires shotfirers to take all reasonable steps to ensure that shotfiring operations are carried out safely.

13. Regulation 14 requires the manager of a safety-lamp mine-

- (a) to identify safety risks present during shotfiring operations there which arise out of stray electrical currents or voltages; and
- (b) to set up a shotfiring system at the mine which will minimise those risks.

14. Regulation 15 requires the manager of a safety-lamp mine-

- (a) to identify health and safety risks arising out of toxic fumes produced by shotfiring operations there; and
- (b) to take specified measures in respect of those risks.
- 15. Regulation 16-
  - (a) imposes conditions with respect to who may prime or assist in priming cartridges;
  - (b) specifies what a person must do before priming cartridges; and
  - (c) specifies what steps a person must take if he primes a cartridge at the place where it is to be used.
- **16.** Regulation 17–
  - (a) specifies who may-
    - (i) prime cartridges away from the place where they are to be used,
    - (ii) open containers of primed cartridges, and
    - (iii) handle primed cartridges; and
  - (b) imposes requirements on persons who prime cartridges at a priming station.
- 17. Regulation 18–
  - (a) requires persons who are to fire single or multiple shots to test for firedamp and make general safety examinations immediately before firing the shots and charging the shotholes for them;
  - (b) (where the above tests reveal the presence of firedamp in specified concentra tions) requires the persons who made those tests to desist from charging or firing until those concentrations have been reduced; and
  - (c) requires those persons to take specified additional steps where those concentrations cannot be reduced.
- **18.** Regulation 19–
  - (a) requires shotfirers and persons having control of mining operations who find or have reported to them the presence in the general body of the air of a specified concentration of firedamp to take certain safety precautions (including in particular informing the person in charge of the mine of that presence);
  - (b) requires persons in charge who are informed as aforesaid to take specified safety precautions as regards the charging of shotholes and the firing of shots; and
  - (c) requires the manager of a safety-lamp mine to notify the Health and Safety Executive whenever persons in charge who are informed as aforesaid ensure that the charging of shotholes or the firing of shots ceases or is prohibited at the mine.

- **19.** Regulation 20–
  - (a) requires persons who drill shotholes to take specified safety precautions; and
  - (b) imposes restrictions with respect to the charging of shotholes.

**20.** Regulation 21 prohibits persons from removing parts of a charge from a charged shothole unless they are dealing with a misfire.

**21.** Regulation 22–

- (a) specifies who may carry out shotfiring operations (whilst at the same time expressly permitting other specified activities in connection with shotholes); and
- (b) requires the manager of a safety-lamp mine to ensure that all shotfiring operations there are carried out by or under the supervision of a single shotfirer.
- 22. Regulation 23-
  - (a) imposes requirements on shotfirers who are about to fire shots or rounds of shots (including in particular requirements for them to identify danger zones and to ensure that sentries are posted or fencing is erected); and
  - (b) imposes restrictions on the coupling of shotfiring cable to detonator circuits in certain shafts and staple pits.

**23.** Regulation 24 imposes requirements on persons appointed to act as sentries (including in particular a requirement for them to forbid certain persons to enter danger zones).

**24.** Regulation 25 prohibits persons from passing sentries who have forbidden them to enter danger zones and restricts the power of persons to pass fencing erected by or on behalf of shotfirers.

25. Regulation 26 imposes conditions with regard to the use of shotfiring cable.

26. Regulation 27 specifies the steps a person must take before firing a shot or round of shots.

**27.** Regulation 28 imposes conditions with regard to the use by shotfirers and trainee shotfirers of exploders.

**28.** Regulation 29–

- (a) requires the manager of a safety-lamp mine to give shotfirers there written notice of how many shots they may fire or have fired during their respective periods of duty;
- (b) provides that the maximum number of shots so notified shall be consistent with the requirements of safety; and
- (c) imposes ancillary requirements on such a manager with regard to the giving of such notices (in particular where he is the manager of a coal mine and gives a shotfirer who is also a pit deputy notice that he may fire or have fired more than 10 shots during his period of duty).
- 29. Regulation 30 imposes restrictions on-
  - (a) the firing of shots in the roof of a longwall working; and
  - (b) the firing of detonators or primed cartridges.

**30.** Regulation 31 requires shotfirers to make examinations for safety after shots or rounds of shots have been fired and states when those examinations are to take place. In the case of a coal mine, the shotfirer who fired the shot or round or supervised its firing shall make the examination, but in the case of other safety-lamp mines any shotfirer may make the examination.

- 31. Regulation 32 requires-
  - (a) the shotfirer in charge of the shot; and
  - (b) the manager of the relevant safety-lamp mine,

to take specified steps in the event of a misfire.

32. Regulation 33 imposes further duties-

- (a) on shotfirers with respect to the firing of charged shotholes and primed cartridges; and
- (b) on shotfirers and other persons senior to them relating to the inability of shotfirers and trainee shotfirers (through circumstances beyond their control) to comply with specified requirements of the Regulations.
- **33.** Regulation 34 requires shotfirers to make specified records.
- **34.** Regulation 35–
  - (a) provides that regulations 4 to 35 do not apply to explosives or detonators used in an approved barrier; and
  - (b) requires the manager of a safety-lamp mine to make specified arrangements with regard to approved barriers at the mine.

**35.** Regulation 36 imposes requirements on the manager of a safety-lamp mine with regard to the keeping of records.

**36.** Regulation 37 provides that in criminal proceedings under regulations 4(3), 5(1), (3), (4), (5), (6) or (7), 7(2), (4) or (5), 9(4), 22(3), 31(2) or 36, it shall be a defence for the accused (in each case the manager of a safety-lamp mine) to prove that he took all reasonable steps and exercised all due diligence to avoid the commission of the offence.

**37.** Regulation 38 requires the manager of a safety-lamp mine to ensure, so far as is reasonably practicable, that other persons at the mine comply with their obligations under the Regulations.

**38.** Regulation 39 enables the Health and Safety Executive to grant exemptions from any requirements or prohibitions imposed by the Regulations.

39. Regulation 40-

- (a) disapplies section 69(3) and (4) of the Mines and Quarries Act 1954 [c.70] (which subsections place restrictions on the taking or use below ground in mines of blasting materials and devices) in respect of safety-lamp mines; and
- (b) disapplies section 157 of the above Act of 1954 (which provides a defence in certain legal proceedings) in relation to any legal proceedings based on an allegation of a contravention of a requirement or prohibition imposed by or under the Regulations.
- 40. Regulation 41-
  - (a) revokes the instruments specified in column 1 of the Schedule to the Regulations to the extent specified in the corresponding entry in column 3 thereof; and
  - (b) modifies the Stratified Ironstone, Shale and Fireclay Mines (Explosives) Regulations 1956 (S.I. 1956/1943) and the Miscellaneous Mines (Explosives) Regulations 1959 (S.I. 1959/2258).

**41.** Regulation 42 lays down transitional and saving provisions respecting persons who were employed as shotfirers at safety-lamp mines before the coming into force of the Regulations.