# 1995 No. 491

# HEALTH AND SAFETY

## Borehole Sites and Operations Regulations (Northern Ireland) 1995

*Made* . . . . . *21st December 1995*

*Coming into operation* . . *11th March 1996*

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The Department of Economic Development, being the Department concerned(**a**), in exercise of the powers conferred on it by Articles 17(1), (2), (4), (5) and (6) and 55(2) of, and paragraphs 1(1) and (2), 5, 7, 8, 10, 11, 13, 14(1), 15, 17 and 20(*b*) of Schedule 3 to, the Health and Safety at Work (Northern Ireland) Order 1978(**b**) and of every other power enabling it in that behalf, after consultation in accordance with Article 46(1) of that Order with the Health and Safety Agency for Northern Ireland and such other bodies as appeared to the Department to be appropriate, hereby makes the following Regulations:—

*Citation and commencement*

**1.** These Regulations may be cited as the Borehole Sites and Operations Regulations (Northern Ireland) 1995 and shall come into operation on 11th March 1996.

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(**a**) *See* Article 2(2) of S.I. 1978/1039 (N.I. 9)
(**b**) S.I. 1978/1039 (N.I. 9)

*Interpretation*

**2.**—(1) In these Regulations—

"borehole site" means a place at which a borehole operation—

(*a*) is being or is to be undertaken; or

(*b*) has been undertaken, save where all borehole operations have ceased and all boreholes have been abandoned;

"competent" in relation to a person means competent by way of sufficient training and experience or knowledge and other qualities properly to perform or assist in performing the work which that person is required to do;

"the Department" means the Department of Economic Development;

"health and safety document" has the meaning assigned to it by regulation 7;

"mining" does not include open cast mining;

"mining area" means land—

(*a*) within one kilometre, in a horizontal or other direction, of the workings in a mine (whether disused or not); or

(*b*) in relation to which a licence to mine for minerals has been granted;

"operator", in relation to a borehole site, means—

(*a*) a person appointed by the owner in writing to exercise for the time being the function of organising or supervising borehole operations at the site, where that function involves the exercise of overall control of the borehole site; or

(*b*) where for the time being there is no such person, the owner;

"owner", in relation to a borehole site, means the person who has the right to undertake the borehole operations which are being or are to be undertaken at the site; and

"well" includes any borehole associated with that well.

(2) Any reference in these Regulations to a borehole operation is a reference to an activity or operation in the course or furtherance of, or in connection with the cessation of—

(*a*) the extraction of minerals by a borehole;

(*b*) prospecting with a view to such extraction; or

(*c*) prospecting by a borehole, other than a borehole drilled from within the underground workings of a mine which is in use, with a view to the extraction of minerals by means other than a borehole,

or to the preparation for sale, but not the processing, of extracted minerals at the place of any such activity or operation.

*Application*

**3.**—(1) These Regulations shall not apply to offshore installations or activities carried out from such installations.

(2) These Regulations shall apply to a self-employed person as they apply to an employer and as if that self-employed person were both an employer and an employee.

*Furnishing of information to, and general duties of, the operator*

**4.**—(1) Where the owner is not himself the operator of a borehole site, he shall furnish the operator with all information in his possession needed to enable the operator to perform his duties under these Regulations.

(2) In addition to any other duties imposed on the operator by these Regulations, it shall be the duty of the operator to—

(*a*) exercise overall control of the borehole site; and

(*b*) co-ordinate the measures taken by himself and every employer and self-employed person at the site to comply with the requirements and prohibitions imposed upon them by or under the relevant statutory provisions.

(3) In relation to a borehole site, any duty imposed on an employer by these Regulations shall also be imposed on the operator in so far as it relates to matters under his control.

*Co-operation*

**5.** Every employer of persons at work at a borehole site (other than the operator) shall co-operate with the operator to the extent necessary to enable him to comply with the relevant statutory provisions at the site.

*Notice of the commencement of drilling operations and the abandonment of boreholes*

**6.**—(1) In the case of petroleum, the operator of a borehole site shall ensure that a drilling operation, abandonment operation or other operation on a well which would make a significant alteration to it, or involve a risk of the accidental release of fluids from the well or reservoir, is not commenced at that site unless he has notified to the Department the particulars specified in Part I of Schedule 1 at least 21 days in advance, or such shorter time in advance as the Department may agree.

(2) The operator of a borehole site at which a borehole is intended to be drilled with a view to the extraction of minerals by mining shall not commence drilling such borehole unless he has notified to the Department the particulars specified in Part II of Schedule 1 at least 21 days in advance, or such shorter time in advance as the Department may agree.

(3) Where a borehole (not being a borehole to which paragraph (1) or (2) relates) is being drilled within a mining area to a depth of 30 metres or more, the person entitled to drill the borehole shall, within 30 days after the commencement of its drilling, notify to the Department the particulars specified in Part III of Schedule 1.

(4) The operator of a borehole site at which a borehole, drilled with a view to the extraction of minerals by mining, is being abandoned shall, within 21 days after the commencement of its abandonment, notify to the Department the particulars specified in Part IV of Schedule 1.

(5) The operator of a borehole site or, in the case of particulars previously notified under paragraph (3), the person entitled to drill the borehole shall ensure that the Department is notified as soon as reasonably practicable of any material change of circumstances which would affect particulars previously notified under paragraph (1), (2), (3) or (4).

(6) Where, in pursuance of this regulation, plans and other documents have been sent to the Department they shall be retained by the Department or in accordance with arrangements approved by the Department.

(7) In paragraph (1), "petroleum" means any mineral oil or relative hydrocarbon and natural gas existing in its natural condition in strata, but does not include coal or bituminous shales or other stratified deposits from which oil can be extracted by destructive distillation.

(8) Subject to paragraph (9) and to any of the provisions imposed by the Communities in respect of the encouragement of improvements in the safety and health of workers at work, the Department may, by a certificate in writing, exempt any person, borehole, borehole site, or class of persons, boreholes or borehole sites from any requirement or prohibition imposed by the preceding provisions of this regulation and any such exemption may be granted subject to conditions and with or without limit of time and may be revoked by a certificate in writing at any time.

(9) The Department 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 it proposes to attach to the exemption; and

(*b*) any other requirements imposed by or under any statutory provisions which apply to the case,

it 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.

*Health and safety document*

**7.**—(1) A borehole operation shall not be commenced at a borehole site unless the operator has ensured that a document (in these Regulations referred to as the "health and safety document") has been prepared which—

(*a*) demonstrates that the risks to which persons at the site are exposed whilst they are at work have been assessed in accordance with regulation 3 of the Management Regulations;

(*b*) demonstrates that adequate measures, including measures concerning the design, use and maintenance of the site and of its plant, will be taken to safeguard the health and safety of the persons at work at the site; and

(*c*) includes a statement of how the measures referred to in sub-paragraph (*b*) will be co-ordinated.

(2) In addition to the matters referred to in paragraph (1), the health and safety document shall also include where appropriate—

(*a*) an escape plan with a view to providing employees with adequate opportunities for leaving workplaces promptly and safely in the event

of danger and an associated rescue plan with a view to providing assistance where necessary;

(*b*) a plan for the prevention of fire and explosions including in particular provisions for preventing blowouts and any uncontrolled escape of flammable gases and for detecting the presence of flammable atmospheres;

(*c*) a fire protection plan detailing the likely sources of fire and the precautions to be taken to protect against, detect and combat the outbreak and spread of fire; and

(*d*) in the case of a borehole site where hydrogen sulphide or other harmful gases are or may be present, a plan for the detection and control of such gases and for the protection of employees from them.

(3) The operator shall ensure that the health and safety document is—

(*a*) kept up to date and revised if the borehole site has undergone major changes (including natural changes), extensions or conversions; and

(*b*) made available to each employer of persons at work at the site.

(4) Each employer of persons at work at the borehole site shall have regard to the health and safety document in meeting his obligations under the relevant statutory provisions.

(5) In this regulation, "the Management Regulations" means the Management of Health and Safety at Work Regulations (Northern Ireland) 1992(**a**).

*Additional duties of the operator*

**8.**—(1) The operator shall ensure that every workplace on a borehole site is designed, constructed, erected and maintained and has sufficient stability to afford adequate protection for employees and to withstand the environmental forces anticipated at the site.

(2) The operator shall ensure that adequate means are provided and maintained for—

(*a*) the prompt and swift escape and, where necessary, the rescue of employees from workplaces in the event of danger; and

(*b*) communicating and giving warning when escape or rescue is necessary.

(3) In this regulation, "workplace" has the same meaning as in regulation 2(1) of the Workplace (Health, Safety and Welfare) Regulations (Northern Ireland) 1993(**b**).

*Additional health and safety requirements*

**9.**—(1) Subject to paragraph (2), it shall be the duty of every employer of persons at work on a borehole site to ensure that the additional health and safety provisions set out in Schedule 2 are applied as they are appropriate

(**a**) S.R. 1992 No. 459 as amended by S.R. 1994 No. 478
(**b**) S.R. 1993 No. 37

having regard to the nature and circumstances of the work carried on there and to the provisions of the health and safety document.

(2) The additional health and safety requirements referred to in paragraph (1) shall apply without prejudice to the requirements of the other relevant statutory provisions relating to the borehole site.

*Health surveillance*

**10.**—(1) An employer of a person engaged in borehole operations shall ensure that he is provided with such health surveillance as is appropriate; and where that person is assigned to the work after the coming into operation of these Regulations, the health surveillance shall be commenced before he is so assigned.

(2) In this regulation "appropriate" means appropriate having regard to the nature and magnitude of the risks to the safety and health of the person referred to in paragraph (1).

*Defence*

**11.** In any proceedings for an offence consisting of a contravention of these Regulations or a contravention of any requirement or prohibition imposed thereunder, it shall be a defence for any person to prove that he took all reasonable precautions and exercised all due diligence to avoid the commission of that offence.

Sealed with the Official Seal of the Department of Economic Development on 21st December 1995.

(L.S.) *Philip B. Strong*
Assistant Secretary

**Particulars required for notifications under regulation 6**

PART I

NOTIFICATION UNDER REGULATION 6(1)

The particulars required for a notification under regulation 6(1) are as follows:—

1. Name and address of the operator.

2. Particulars of the type of well, its number and its name.

3. Particulars of the rig or other plant which is to be used in connection with the operations on the well.

4. Particulars of the surface equipment and of the circulation fluids to be used to control the pressure of the well.

5. Particulars with scale diagrams, where appropriate, of—

(*a*) the Irish Grid reference of the location of the top of the well;

(*b*) the directional path of the borehole;

(*c*) the terminal depth and location; and

(*d*) its position and that of nearby wells and mine workings relative to each other.

6. A description of operations to be performed and a programme of works including—

(*a*) the dates on which operations are expected to start and finish; and

(*b*) a diagram showing details of the intended final completion or recompletion of the well.

7. A description of—

(*a*) any activities during operations on the well which will involve a risk of the accidental release of fluids from the well or reservoir; and

(*b*) such hazards.

8. In the case of a well which is to be drilled—

(*a*) particulars of the geological strata and formations and fluids within them through which it may pass and of any hazards with the potential to cause fire, explosion or a blowout which they may contain;

(*b*) the procedures for effectively monitoring the direction of the borehole and the effects of intersecting nearby wells; and

(*c*) particulars of the design of the well, sufficient to show that it takes account of the matters in sub-paragraph (*a*), and that it will so far as is reasonably practicable be safe.

9. In the case of an existing well—

(*a*) a diagram of the well;

(*b*) a brief history of the well including a summary of previous operations and any problems encountered; and

(*c*) its present status and condition.

10. In the case of an abandonment operation details of the proposed sealing or treatment.

PART II

NOTIFICATION UNDER REGULATION 6(2)

The particulars required for a notification under regulation 6(2) are as follows:—

1. Name and address of the operator.

2. Particulars with scale diagrams, where appropriate, of—

(*a*) the Irish Grid reference of the location of the top of the borehole;

(*b*) its directional path; and

(*c*) its terminal depth and location.

3. A description of the operations to be performed and a programme of works which includes the dates on which operations are expected to start and finish.

PART III

NOTIFICATION UNDER REGULATION 6(3)

The particulars required for a notification under regulation 6(3) are as follows:—

1. Name and address of the person entitled to drill the borehole.

2. Particulars with scale diagrams, where appropriate, of—

(*a*) the Irish Grid reference of the location of the top of the borehole;

(*b*) its directional path; and

(*c*) its terminal depth and location.

3. A description of the operations to be, or being, performed and a programme of work which includes the dates on which operations are expected to start and finish or (if past) the dates they started and finished.

PART IV

NOTIFICATION UNDER REGULATION 6(4)

The particulars required for a notification under regulation 6(4) are as follows:—

1. Name and address of the operator.

2. Particulars with scale diagrams, where appropriate, of—

(*a*) the Irish Grid reference of the location of the top of the borehole;

(*b*) its directional path; and

(*c*) its terminal depth and location.

3. Details of the sealing or other treatment.

**Additional health and safety requirements**

*Delineation and provision of safety signs*

1. Areas where there is a special hazard shall be delineated and appropriate safety signs placed.

*Person in charge and supervision*

2. A competent person appointed by the operator shall be in charge of every borehole site where employees are present and there shall be sufficient competent persons appointed by the operator to exercise immediate supervision of borehole operations with a view to ensuring the health and safety of the persons at work at the site.

*Provision of competent persons*

3. Where borehole operations are carried on, there shall be provided a sufficient number of competent persons with a view to enabling those operations to be carried on safely.

*Written instructions*

4.—(1) Where borehole operations are carried on, employers shall provide written instructions containing—

(*a*) rules necessary for ensuring the health and safety of their employees;

(*b*) information on the use of emergency equipment and the action to be taken in the event of an emergency at or near the borehole site.

(2) Copies of the written instructions referred to in sub-paragraph (1) shall be made available to all employees who may be affected by them.

*Work permits*

5.—(1) Where borehole operations are carried on and it is shown in the health and safety document that such a measure is necessary, a system of work permits shall be introduced for carrying out hazardous operations and usually straightforward operations which may interact with other activities to cause serious hazards.

(2) Work permits shall specify the conditions to be fulfilled and the precautions to be taken before, during and after the work concerned and shall be issued by the person in charge of those operations in accordance with a scheme agreed with the operator of the borehole site.

*Maintenance*

6.—(1) Where borehole operations are carried on, a suitable scheme shall be set up for the systematic examination, maintenance and, where appropriate, testing of mechanical and electrical equipment and plant.

(2) All examination, maintenance and testing shall be carried out by competent persons and a record of any examination and tests shall be made and kept for at least 3 years after the equipment or plant concerned was last used.

(3) The foregoing sub-paragraphs shall also apply in relation to the safety equipment provided, with a view to ensuring that it is ready for use and in good working order at all times having regard to the uses to which it may be put.

*Well control*

7.—(1) Suitable well control equipment shall be provided for use during borehole operations to protect against blowouts having regard to the provisions of the health and safety document.

(2) The deployment of such equipment shall take into account the prevailing well and operational conditions.

*Harmful atmospheres*

8. Where there is a risk that employees may be exposed to atmospheres that are hazardous to health, there shall be provided—

(*a*) sufficient appropriate breathing and resuscitation equipment and apparatus; and

(*b*) a sufficient number of employees trained to use the apparatus present at the borehole site.

*Prevention of explosions*

9. Where there is a risk of explosion, all necessary measures shall be taken with a view to—

(*a*) preventing the occurrence and accumulation of explosive atmospheres; and

(*b*) preventing the ignition of explosive atmospheres.

*Remote control in emergencies*

10.—(1) Where the health and safety document shows that such a measure is necessary, certain equipment shall be capable of remote control from suitable locations in the event of an emergency.

(2) The equipment referred to in sub-paragraph (1) shall, in any case, include systems for the isolation and blowdown of wells, plant and pipelines.

*Communications, general and emergency*

11.—(1) Where the health and safety document shows that such a measure is necessary, every borehole site at which employees are present shall be provided with—

(*a*) an acoustic and optical system capable of transmitting an alarm to every part of the site as necessary; and

(*b*) an acoustic system capable of being heard distinctly at all parts of the site where employees are frequently present.

(2) The facilities for raising the alarm shall be situated at suitable places.

(3) Where employees are present at borehole sites that are not usually manned, appropriate means of communication shall be placed at their disposal.

*Means of evacuation and escape*

12.—(1) Employees shall be trained in appropriate action to be taken in the event of an emergency.

(2) Rescue equipment shall be provided at readily accessible and appropriately sited places and kept ready for use.

(3) Where escape routes are difficult and where irrespirable atmospheres are, or may be, present, self-contained escape apparatus shall be provided for immediate use by employees at the workstation.

*Safety drills*

13.—(1) Safety drills shall be held at regular intervals at all borehole sites at which employees are usually present.

(2) The main purpose of such drills shall be to train and check the skills of persons to whom specific duties have been assigned in the event of an emergency involving the use, handling or operation of emergency equipment taking into account the criteria laid down in the health and safety document.

(3) Where appropriate, employees who have been so assigned shall also be drilled in the correct use, handling or operation of that equipment.

*Fire detection and fire-fighting*

14.—(1) Adequate measures shall be taken to prevent fires from starting and spreading from sources identified in the health and safety document.

(2) Provision shall be made for fast and effective fire-fighting.

(3) Borehole sites shall be equipped with appropriate fire-fighting equipment and as necessary with fire detection and alarm systems.

(4) Non-automatic fire-fighting equipment shall be easily accessible and simple to use and where necessary protected from damage.

(5) The fire protection plan referred to in regulation 7(2)(*c*) shall be kept available on the borehole site.

*Safe assembly point and muster lists*

15. Where required in the health and safety document, safe assembly points must be specified, muster lists maintained and the necessary action shall be taken.

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## EXPLANATORY NOTE

*(This note is not part of the Regulations.)*

1. These Regulations contain requirements in relation to borehole operations carried on at borehole sites for the purposes of health and safety.

2. The Regulations give effect (or, in the case of the provisions listed at sub-paragraph (*c*) below, give effect in part) onshore to the following provisions of Council Directive No. 92/91/EEC (O.J. No. L348, 28.11.92, p. 9), concerning the minimum requirements for improving the safety and health protection of workers in the mineral-extracting industries through drilling:

(*a*) Articles 3.1(a) and (b), 3.2, 6 and 8;

(*b*) in Part A of the Annex to the Directive, section 1, points 2.2 to 2.4 and 2.8, section 5, and points 6.2.3 and 6.3; and in Part B of the Annex, points 1.1 to 1.4, and sections 2 to 6; and

(*c*) Articles 3.3, 4, 5 and 10; and, in Part A of the Annex, points 2.6, 4.1 and 6.1.

The Regulations, by regulation 6, also make other provision.

3. Duties under the Regulations fall variously on the "owner" or "operator" of a "borehole site" or on employers: expressions are defined in regulation 2; and, by regulation 3, the Regulations apply to self-employed persons as they apply to employers.

4. Regulation 4 requires an owner to furnish an operator with necessary information; requires an operator to exercise control of a borehole site and to co-ordinate measures to comply with requirements and prohibitions under the relevant statutory provisions; and imposes on an operator also a duty imposed by the Regulations on an employer.

5. Regulation 5 requires employers of persons at work at a borehole site to co-operate with the operator.

6. Regulation 6 provides for particulars specified in Schedule 1 to be notified to the Department of Economic Development ("the Department") before or, as the case may be, after the commencement of certain specified activities; for the retention by the Department of plans and other documents; and for the granting by the Department of exemptions from requirements of this regulation.

7. Regulation 7 prohibits the commencement of a borehole operation unless the operator ensures that a "health and safety document" has been prepared; specifies the matters which the document must contain; requires that the operator ensure that the document be kept up to date; and requires employers to have regard to it.

8. Regulation 8 requires the operator to ensure that workplaces on a borehole site are designed and built to a certain standard; and that there are adequate means of escape, and for communication and warning when escape or rescue is necessary.

9. Regulation 9 places duties on employers of persons at work on a borehole site to ensure that the provisions in Schedule 2 are complied with.

10. Regulation 10 requires employers to provide health surveillance.

11. Regulation 11 provides for a special defence to an offence consisting of a contravention of the Regulations or a contravention of any requirement or prohibition imposed thereunder.

12. A person who contravenes the Regulations or any requirement or prohibition imposed thereunder, is guilty of an offence under Article 31 of the Health and Safety at Work (Northern Ireland) Order 1978 and is liable, on summary conviction, to a fine not exceeding the statutory maximum (currently £5,000) or, on conviction on indictment, to a fine.