

Subsidiary Legislation made under ss. 58 and 81.

Factories (Explosive Atmospheres) Regulations, 2004

LN. 2004/004

Commencement (LN.2004/007)

22.1.2004

Transposing:

Directive 1999/92/EC

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Factories

2004/004 Factories (Explosive Atmospheres) Regulations, 2004

In exercise of the powers conferred on him by sections 58 and 81 of the Factories Act, and of all other enabling powers, and for the purposes of transposing into the law of Gibraltar Directive 1999/92/EC of the European Parliament and of the Council of 16 December 1999 on minimum requirements for improving the safety and health protection of workers potentially at risk from explosive atmospheres (15th individual Directive within the meaning of Article 16(1) of Directive 89/391/EEC), the Governor has made the following regulations—

Title and commencement.

1.(1) These Regulations may be cited as the Factories (Explosive Atmospheres) Regulations, 2004.

(2) These Regulations shall come into operation on the day appointed by the Governor by notice in the Gazette.

Interpretation.

2.(1) In these Regulations, unless the context otherwise requires—

“Commission” means the European Commission;

“Directive” means Directive 1999/92/EC of the European Parliament and of the Council of 16 December 1999 on minimum requirements for improving the safety and health protection of workers potentially at risk from explosive atmospheres (15th individual Directive within the meaning of Article 16(1) of Directive 89/391/EEC);

“explosive atmosphere” means a mixture with air, under atmospheric conditions, of flammable substances in the form of gases, vapours, mists or dusts in which, after ignition has occurred, combustion spreads to the entire unburned mixture;

“relevant individual Directives” means the Directives of the European Commission and of the Council within the meaning of Article 16(1) of Council Directive 89/391/EEC;

“relevant Regulations” means the following Regulations that transpose into the law of Gibraltar Council Directive 89/391/EEC of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work—

- (a) Factories (Safety) Regulations 1996 (Legal Notice 10 of 1996);
- (b) the Management of Health and Safety at Work Regulations 1996 (Legal Notice 11 of 1996); and

- (c) Employment (Maternity and Parental Leave and Health and Safety) Regulations, 1996 (Legal Notice 14 of 1996) as amended by the Employment (Maternity and Parental Leave and Health and Safety) Regulations (Amendment) Regulations 2001 (Legal Notice 112 of 2001).

Application.

3.(1) These Regulations shall not apply to—

- (a) areas used directly for and during the medical treatment of patients;
- (b) the use of appliances burning gaseous fuels in accordance with Directive 90/396/EEC;
- (c) the manufacture, handling, use, storage and transport of explosives or chemically unstable substances; and
- (d) mineral-extracting industries covered by—
 - (i) the Factories (Boreholes (Offshore Installations) Health and Safety) Regulations 1997;
 - (ii) the Factories (Boreholes (Sites and Operations) Health and Safety) Regulations 1997; and
 - (iii) the Factories (Mines and Quarries) (Miscellaneous Health and Safety Provisions) Regulations 1997; and
- (e) the use of means of transport by land, water and air, to which the pertinent provisions of the international agreements (ADNR, ADR, ICAO, IMO, RID), and the Community Directives giving effect to those agreements, apply but the means of transport intended for use in a potentially explosive atmosphere shall not be excluded.

(2) The provisions of the relevant Regulations and the relevant individual Directives are fully applicable to the domain referred to in subregulation (1) above, without prejudice to more restrictive and specific provisions contained in these Regulations.

Prevention of, and protection against explosions.

4.(1) The employer shall, for the purpose of preventing, within the meaning of Article 6(2) of Directive 89/391/EEC, and providing protection against explosions, take technical and

organisational measures appropriate to the nature of the operation, in order of priority and in accordance with the following basic principles–

- (a) the prevention of the formation of explosive atmospheres, or where the nature of the activity does not allow that;
 - (b) the avoidance of the ignition of explosive atmospheres; and
 - (c) the mitigation of the detrimental effects of an explosion so as to ensure the health and safety of workers.
- (2) The measures referred to in subregulation (1) shall–
- (a) where necessary, be combined and supplemented with measures against the propagation of explosions; and
 - (b) reviewed regularly,

and, in any event, whenever significant changes occur.

Assessment of explosion risks.

5.(1) The employer shall, in carrying out the obligations laid down in the relevant Regulations, assess the specific risks arising from explosive atmospheres, taking account at least of–

- (a) the likelihood that explosive atmospheres will occur and their persistence;
- (b) the likelihood that ignition sources, including electrostatic discharges, will be present and become active and effective;
- (c) the installations, substances used, processes, and their possible interactions; and
- (d) the scale of the anticipated effects.

(2) Explosion risks shall be assessed overall.

(3) Places which are or can be connected via openings to places in which explosive atmospheres may occur shall be taken into account in assessing explosion risks.

General obligations.

6.(1) The employer shall, in order to ensure the safety and health of workers, and in accordance with the basic principles of risk assessment and those laid down in regulation 4, take the necessary measures so that—

- (a) where explosive atmospheres may arise in such quantities as to endanger the health and safety of workers or others, the working environment is such that work can be performed safely; and
- (b) in working environments where explosive atmospheres may arise in such quantities as to endanger the safety and health of workers, appropriate supervision during the presence of workers is ensured in accordance with the risk assessment by the use of appropriate technical means.

Duty of coordination.

7.(1) Where workers from several undertakings are present at the same workplace, each employer shall be responsible for all matters coming under his control.

(2) Without prejudice to the individual responsibility of each employer as provided for in the relevant Regulations, the employer responsible for the workplace in accordance with the relevant Regulations shall coordinate the implementation of all the measures concerning workers' health and safety and shall state, in the explosion protection document referred to in regulation 9, the aim of that coordination and the measures and procedures for implementing it.

Places where explosive atmospheres may occur.

8.(1) The employer shall classify places where explosive atmospheres may occur into zones in accordance with Schedule 1.

(2) The employer shall ensure that the minimum requirements laid down in Schedule 2 are applied to places covered by subregulation 1.

(3) Where necessary, places where explosive atmospheres may occur in such quantities as to endanger the health and safety of workers shall be marked with signs at their points of entry in accordance with Schedule 3.

Explosion protection document.

9.(1) In carrying out the obligations laid down in regulation 5, the employer shall ensure that an explosion protection document is drawn up and kept up to date.

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(2) The explosion protection document referred to in subregulation (1), shall demonstrate in particular—

- (a) that the explosion risks have been determined and assessed;
- (b) that adequate measures will be taken to attain the aims of these Regulations;
- (c) those places which have been classified into zones in accordance with Schedule 1;
- (d) those places where the minimum requirements set out in Schedule 2 will apply;
- (e) that the workplace and work equipment, including warning devices, are designed, operated and maintained with due regard for safety; and
- (f) that in accordance with the Factories (Lifting Operations and Lifting Equipment) Regulations, 1999, arrangements have been made for the safe use of work equipment.

(2) The explosion protection document referred to in subregulation (1) shall be drawn up prior to the commencement of work and be revised when the workplace, work equipment or organisation of the work undergoes significant changes, extensions or conversions.

(3) The employer may combine existing explosion risk assessments, documents or other equivalent reports produced under other Community acts.

Special requirements for work equipment and workplaces.

10.(1) Work equipment for use in places where explosive atmospheres may occur which is already in use or is made available in the undertaking or establishment for the first time before the commencement of these Regulations, shall comply from that date with the minimum requirements laid down in Schedule 2, Part A, if no other Community Directive is applicable or is so only partially.

(2) Work equipment for use in places where explosive atmospheres may occur which is made available in the undertaking or establishment for the first time after the commencement of these Regulations, shall comply with the minimum requirements laid down in Schedule 2, Parts A and B.

(3) Workplaces which contain places where explosive atmospheres may occur and which are used for the first time after the commencement of these Regulations, shall comply with minimum requirements set out in these Regulations.

(4) Where workplaces which contain places where explosive atmospheres may occur are already in use before the commencement of these Regulations, they shall comply with the minimum requirements set out in these Regulations no later than three years after the commencement of these Regulations.

(5) If, after the commencement of these Regulations, any modification, extension or restructuring is undertaken in workplaces containing places where explosive atmospheres may occur, the employer shall take the necessary steps to ensure that these comply with the minimum requirements set out in these Regulations.

Guide of good practice.

11.(1) Where the Commission draws up practical guidelines in a guide of good practice of a non-binding nature, addressing any topics under these Regulations, the Government shall, in the context of the application of these Regulations, take the greatest possible account of such guide in drawing up national policies for the protection of the health and safety of workers.

(2) The Government shall, on request, endeavour to make relevant information available to employers in accordance with subregulation (1), with particular reference to the guide of good practice.

SCHEDULE 1

regs. 8(1), 9(2)(c).

CLASSIFICATION OF PLACES WHERE EXPLOSIVE ATMOSPHERES MAY OCCUR.**Preliminary note:**

The following system of classification must be applied to places where precautions in accordance with regulations 4, 5, 8 and 9 are taken.

1. Places where explosive atmospheres may occur.

A place in which an explosive atmosphere may occur in such quantities as to require special precautions to protect the health and safety of the workers concerned is deemed to be hazardous within the meaning of these Regulations.

A place in which an explosive atmosphere is not expected to occur in such quantities as to require special precautions is deemed to be non-hazardous within the meaning of these Regulations.

Flammable and/or combustible substances are considered as materials which may form an explosive atmosphere unless an investigation of their properties has shown that in mixtures with air they are incapable of independently propagating an explosion.

2. Classification of hazardous places.

Hazardous places are classified in terms of zones on the basis of the frequency and duration of the occurrence of an explosive atmosphere.

The extent of the measures to be taken in accordance with Schedule 2, Part A, is determined by this classification.

Zone 0

A place in which an explosive atmosphere consisting of a mixture with air of flammable substances in the form of gas, vapour or mist is present continuously or for long periods or frequently.

Zone 1

A place in which an explosive atmosphere consisting of a mixture with air or flammable substances in the form of gas, vapour or mist is likely to occur in normal operation occasionally.

Zone 2

A place in which an explosive atmosphere consisting of a mixture with air of flammable substances in the form of gas, vapour or mist is not likely to occur in normal operation but, if it does occur, will persist for a short period only.

Zone 20

A place in which an explosive atmosphere in the form of a cloud of combustible dust in air is present continuously, or for long periods or frequently.

Zone 21

A place in which an explosive atmosphere in the form of a cloud of combustible dust in air is likely to occur in normal operation occasionally.

Zone 22

A place in which an explosive atmosphere in the form of a cloud of combustible dust in air is not likely to occur in normal operation but, if it does occur, will persist for a short period only.

Notes:

1. Layers, deposits and heaps of combustible dust must be considered as any other source which can form an explosive atmosphere.
2. "Normal operation" means the situation when installations are used within their design parameters.

SCHEDULE 2

regs. 8(2), (9)(d), 10.

A. MINIMUM REQUIREMENTS FOR IMPROVING THE SAFETY AND HEALTH PROTECTION OF WORKERS POTENTIALLY AT RISK FROM EXPLOSIVE ATMOSPHERES.**Preliminary note:**

The obligations laid down in this Schedule apply to-

- (a) places classified as hazardous in accordance with Schedule 1 whenever required by the features of workplaces, workstations, the equipment or substances used or the danger caused by the activity related to the risks from explosive atmospheres;
- (b) equipment in non-hazardous places which is required for, or helps to ensure, the safe operation of equipment located in hazardous places.

1. Organisational measures.*1.1. Training of workers.*

The employer must provide those working in places where explosive atmospheres may occur with sufficient and appropriate training with regard to explosion protection.

1.2. Written instructions and permits to work.

Where required by the explosion protection document:

- (a) work in hazardous places must be carried out in accordance with written instructions issued by the employer;
- (b) a system of permits to work must be applied for carrying out both hazardous activities and activities which may interact with other work to cause hazards.

Permits to work must be issued by a person with responsibility for this function prior to the commencement of work.

2. Explosion protection measures.

2.1. Any escape and/or release, whether or not intentional, of flammable gases, vapours, mists or combustible dusts which may give rise to explosion hazards must be suitably diverted or

removed to a safe place or, if that is not practicable, safely contained or rendered safe by some other suitable method.

2.2. If an explosive atmosphere contains several types of flammable and/or combustible gases, vapours, mists or dusts, protective measures shall be appropriate to the greatest potential risk.

2.3. Prevention of ignition hazards in accordance with regulation 4 must also take account of electrostatic discharges, where workers or the working environment act as charge carrier or charge producer. Workers must be provided with appropriate working clothes consisting of materials which do not give rise to electrostatic discharges that can ignite explosive atmospheres.

2.4. Plant, equipment, protective systems and any associated connecting devices must only be brought into service if the explosion protection document indicates that they can be safely used in an explosive atmosphere. This applies also to work equipment and associated connecting devices which are not regarded as equipment or protective systems within the meaning of Directive 94/9/EC if their incorporation into an installation can in itself give rise to an ignition hazard. Necessary measures must be taken to prevent confusion between connecting devices.

2.5. All necessary measures must be taken to ensure that the workplace, work equipment and any associated connecting device made available to workers have been designed, constructed, assembled and installed, and are maintained and operated, in such a way as to minimise the risks of an explosion and, if an explosion does occur, to control or minimise its propagation within that workplace and/or work equipment. For such workplaces appropriate measures must be taken to minimise the risks to workers from the physical effects of an explosion.

2.6. Where necessary, workers must be given optical and/or acoustic warnings and withdrawn before the explosion conditions are reached.

2.7. Where required by the explosion protection document, escape facilities must be provided and maintained to ensure that, in the event of danger, workers can leave endangered places promptly and safely.

2.8. Before a workplace containing places where explosive atmospheres may occur is used for the first time, its overall explosion safety must be verified. Any conditions necessary for ensuring explosion protection must be maintained.

Such verification must be carried out by persons competent in the field of explosion protection as a result of their experience and/or professional training.

2.9. Where the risk assessment shows it is necessary:

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- (a) it must be possible, where power failure can give rise to the spread of additional risks, to maintain equipment and protective systems in a safe state of operation independently of the rest of the installation in the event of power failure; and
- (b) manual override must be possible in order to shut down the equipment and protective systems incorporated within automatic processes which deviate from the intended operating conditions, provided that this does not compromise safety. Only workers competent to do so may take such action,
- (c) on operation of the emergency shutdown, accumulated energy must be dissipated as quickly and as safely as possible or isolated so that it no longer constitutes a hazard.

B. CRITERIA FOR THE SELECTION OF EQUIPMENT AND PROTECTIVE SYSTEMS.

If the explosion protection document based on a risk assessment does not state otherwise, equipment and protective systems for all places in which explosive atmospheres may occur must be selected on the basis of the categories set out in Directive 94/9/EC.

In particular, the following categories of equipment must be used in the zones indicated, provided they are suitable for gases, vapours or mists and/or dusts as appropriate-

- (a) in zone 0 or zone 20, category 1 equipment,
- (b) in zone 1 or zone 21, category 1 or 2 equipment, and
- (c) in zone 2 or zone 22, category 1, 2 or 3 equipment.

SCHEDULE 3

reg. 8(3).

Warning sign for places where explosive atmospheres may occur, pursuant to regulation 8(3):



Place where explosive atmospheres may occur

Distinctive features-

- (a) triangular shape,
- (b) black letters on a yellow background with black edging (the yellow part to take up at least 50 % of the area of the sign).