

**1990 No. 374****HEALTH AND SAFETY****Control of Substances Hazardous to Health Regulations  
(Northern Ireland) 1990**

*Made* . . . . . 11th October 1990

*Coming into operation* . . . . . 11th April 1991

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The Department of Agriculture, the Department of Economic Development, the Department of the Environment and the Department of Health and Social Services acting jointly as the Department concerned<sup>(a)</sup> in exercise of the powers conferred by Articles 17(1), (2), (3), (5) and (6), and 55(2) of, and paragraphs 1(1) and (2), 5(1), 7, 8, 10, 12(1) and (3), 13, 14(1) and 15 of Schedule 3 to, the Health and Safety at Work (Northern Ireland) Order 1978<sup>(b)</sup> and of every other power enabling them 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 them to be appropriate, hereby make the following Regulations:—

#### *Citation and commencement*

1. These Regulations may be cited as the Control of Substances Hazardous to Health Regulations (Northern Ireland) 1990 and shall come into operation on 11th April 1991.

#### *Interpretation*

2.—(1) In these Regulations—

“approved” means approved for the time being in writing by the Department;

“approved list” means the list approved by the Health and Safety Commission and the Department entitled “Information Approved for the Classification, Packaging and Labelling of Dangerous Substances (3rd edition)” as revised or re-issued from time to time;

“the Department” means the Department of Economic Development;

“fumigation” means an operation in which a substance is released into the atmosphere so as to form a gas to control or kill pests or other undesirable organisms;

“the Health and Safety Commission” means the Health and Safety Commission established under section 10 of the Health and Safety at Work etc. Act 1974<sup>(c)</sup>;

“maximum exposure limit” for a substance hazardous to health means the maximum exposure limit for that substance set out in Schedule 1 in relation to the reference period specified therein when calculated by an approved method;

“micro-organism” includes any microscopic biological entity which is capable of replication;

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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)

(c) 1974 c. 37

- “occupational exposure standard” for a substance hazardous to health means the standard approved for that substance in relation to the specified reference period when calculated by an approved method;
- “the Order of 1978” means the Health and Safety at Work (Northern Ireland) Order 1978;
- “statutory provision” has the same meaning as in section 1(f) of the Interpretation Act (Northern Ireland) 1954(a);
- “substance” means any natural or artificial substance whether in solid or liquid form or in the form of a gas or vapour (including micro-organisms);
- “substance hazardous to health” means any substance (including any preparation) which is—
- (a) a substance which is listed in Part 1A of the approved list as dangerous for supply within the meaning of the Classification, Packaging and Labelling of Dangerous Substances Regulations (Northern Ireland) 1985(b) and for which the general indication of nature of risk is specified as very toxic, toxic, harmful, corrosive or irritant;
  - (b) a substance for which a maximum exposure limit is specified in Schedule 1 or for which an occupational exposure standard has been approved;
  - (c) a micro-organism which creates a hazard to the health of any person;
  - (d) dust of any kind, when present at a substantial concentration in air;
  - (e) a substance, not being a substance mentioned in sub-paragraphs (a) to (d), which creates a hazard to the health of any person which is comparable with the hazards created by substances mentioned in those sub-paragraphs.

(2) In these Regulations, any reference to an employee being exposed to a substance hazardous to health is a reference to the exposure of that employee to a substance hazardous to health arising out of or in connection with work which is under the control of his employer.

#### *Duties under these Regulations*

3.—(1) Where any duty is placed by these Regulations on an employer in respect of his employees, he shall, so far as is reasonably practicable, be under a like duty in respect of any other person, whether at work or not, who may be affected by the work carried on by the employer except that the duties of the employer—

- (a) under regulation 11 (health surveillance) shall not extend to persons who are not his employees; and
- (b) under regulations 10 and 12(1) and (2) (which relate respectively to monitoring and information, instruction and training) shall not extend

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(a) 1954 c. 33 (N.I.)

(b) S.R. 1985 No. 81 amended by S.R. 1988 No. 288, S.R. 1989 No. 182, S.R. 1990 No. 120 and S.R. 1990 No. 303

to persons who are not his employees, unless those persons are on the premises where the work is being carried on.

(2) These Regulations shall apply to a self-employed person as they apply to an employer and an employee and as if that self-employed person were both an employer and employee, except that regulations 10 and 11 shall not apply to a self-employed person.

(3) The duties imposed by these Regulations shall not extend to the master or crew of a sea-going ship or to the employer of such persons in relation to the normal shipboard activities of a ship's crew under the direction of the master.

#### *Prohibitions relating to certain substances*

4.—(1) Those substances described in column 1 of Schedule 2 are prohibited to the extent set out in the corresponding entry in column 2.

(2) A person shall not supply during the course of, or for use at work, the following substances or articles—

- (a) 2-naphthylamine, benzidine, 4-aminodiphenyl, 4-nitrodiphenyl, their salts and any substance containing any of those compounds in a total concentration exceeding 0.1 per cent.; and
- (b) matches made with white phosphorus.

#### *Application of regulations 6 to 12*

5.—(1) Regulations 6 to 12 shall have effect with a view to protecting persons against risks to their health, whether immediate or delayed, arising from exposure to substances hazardous to health except—

- (a) where and to the extent that either of the following Regulations apply, namely—
  - (i) the Control of Lead at Work Regulations (Northern Ireland) 1986(a), or
  - (ii) the Control of Asbestos at Work Regulations (Northern Ireland) 1988(b);
- (b) where the substance is hazardous to health solely by virtue of its radioactive, explosive or flammable properties, or solely because it is at a high or low temperature or a high pressure;
- (c) where the risk to health is a risk to the health of a person to whom the substance is administered in the course of his medical treatment; or
- (d) below ground in any mine within the meaning of section 156 of the Mines Act (Northern Ireland) 1969(c).

(2) In paragraph 1(c) “medical treatment” means medical or dental examination or treatment which is conducted under the direction of a registered medical or dental practitioner and includes any such examination, treatment or administration of any substance conducted for the purpose of research.

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(a) S.R. 1986 No. 36

(b) S.R. 1988 No. 74

(c) 1969 c. 6 (N.I.)

(3) Nothing in these Regulations shall prejudice any requirement imposed by or under any statutory provision relating to public health or the protection of the environment.

*Assessment of health risks created by work involving substances hazardous to health*

6.—(1) Subject to regulation 16(1) (transitional provisions), an employer shall not carry on any work which is liable to expose any employees to any substance hazardous to health unless he has made a suitable and sufficient assessment of the risks created by that work to the health of those employees and of the steps that need to be taken to meet the requirements of these Regulations.

(2) The assessment required by paragraph (1) shall be reviewed forthwith if—

- (a) there is reason to suspect that the assessment is no longer valid; or
- (b) there has been a significant change in the work to which the assessment relates,

and, where as a result of the review, changes in the assessment are required, those changes shall be made.

*Prevention or control of exposure to substances hazardous to health*

7.—(1) Every employer shall ensure that the exposure of his employees to substances hazardous to health is either prevented or, where this is not reasonably practicable, adequately controlled.

(2) So far as is reasonably practicable, the prevention or adequate control of exposure of employees to a substance hazardous to health shall be secured by measures other than the provision of personal protective equipment.

(3) Where the measures taken in accordance with paragraph (2) do not prevent, or provide adequate control of, exposure to substances hazardous to the health of employees, then, in addition to taking those measures, the employer shall provide those employees with such suitable personal protective equipment as will adequately control their exposure to substances hazardous to health.

(4) Where there is exposure of an employee to a substance for which a maximum exposure limit is specified in Schedule 1, the control of that exposure shall, so far as the inhalation of the substance is concerned, only be treated as being adequate if the level of exposure is reduced so far as is reasonably practicable and in any case below the maximum exposure limit so specified.

(5) Without prejudice to the generality of paragraph (1), where there is exposure of an employee to a substance for which an occupational exposure standard has been approved, the control of that exposure shall, so far as the inhalation of that substance is concerned, be treated as being adequate if—

- (a) that occupational exposure standard is not exceeded; or
- (b) where that occupational exposure standard is exceeded, the employer identifies the reasons for the standard being exceeded and takes appropriate action to remedy the situation as soon as is reasonably practicable.

(6) Subject to regulation 16(2), where respiratory protective equipment is provided in pursuance of this regulation, then it shall—

- (a) be suitable for the purpose for which it was provided; and
- (b) be of an approved type or shall conform to an approved standard;

(7) In this regulation “adequate” means adequate having regard only to the nature of the substance concerned and the nature and degree of the exposure to that substance.

*Use of control measures etc.*

8.—(1) Every employer who provides any control measure, personal protective equipment or other thing or facility pursuant to these Regulations shall take all reasonable steps to ensure that it is properly used or applied as the case may be.

(2) Every employee shall make full and proper use of any control measure, personal protective equipment or other thing or facility provided pursuant to these Regulations and, if he discovers any defect therein, he shall report it forthwith to his employer.

*Maintenance, examination and test of control measures etc.*

9.—(1) Every employer who provides any control measure to meet the requirements of regulation 7 shall ensure that it is maintained in an efficient state, in efficient working order and in good repair.

(2) Subject to regulation 16(3) where engineering controls are provided to meet the requirements of regulation 7, the employer shall ensure that thorough examinations and tests of those engineering controls are carried out—

- (a) in the case of local exhaust ventilation plant, at least once every 14 months, or for local exhaust ventilation plant used in conjunction with a process described in column 1 of Schedule 3, at the interval specified opposite thereto in column 2; and
- (b) in any other case, at suitable intervals.

(3) Where respiratory protective equipment (other than disposable respiratory protective equipment) is provided to meet the requirements of regulation 7, the employer shall ensure that at suitable intervals thorough examinations and, where appropriate, tests of that equipment are carried out.

(4) Every employer shall keep a suitable record of the examinations and tests carried out in pursuance of paragraphs (2) and (3) and of any repairs carried out as a result of those examinations and tests, and that record or a suitable summary thereof shall be kept available for at least 5 years from the date on which it was made.

*Monitoring exposure at the workplace*

10.—(1) In any case in which—

- (a) it is requisite for ensuring the maintenance of adequate control of the exposure of employees to substances hazardous to health; or
- (b) it is otherwise requisite for protecting the health of employees,

the employer shall ensure that the exposure of employees to substances hazardous to health is monitored in accordance with a suitable procedure.

(2) Where a substance or process is described in column 1 of Schedule 4, monitoring shall be carried out at the frequency specified opposite thereto in column 2.

(3) The employer shall keep a suitable record of any monitoring carried out for the purpose of this regulation and that record or a suitable summary thereof shall be kept available—

- (a) where the record is representative of the personal exposures of identifiable employees, for at least 30 years;
- (b) in any other case, for at least 5 years.

### *Health surveillance*

**11.**—(1) Where it is appropriate for the protection of the health of his employees who are, or are liable to be, exposed to a substance hazardous to health, the employer shall ensure that such employees are under suitable health surveillance.

(2) Health surveillance shall be treated as being appropriate for the purposes of paragraph (1) where—

- (a) an employee is exposed to one of the substances mentioned in column 1 of Schedule 5 and is engaged in a process specified opposite thereto in column 2, unless that exposure is not significant; or
- (b) the exposure of an employee to a substance hazardous to health is such that an identifiable disease or adverse health effect may be related to the exposure, there is a reasonable likelihood that the disease or effect may occur under the particular conditions of his work and there are valid techniques for detecting indications of the disease or the effect.

(3) The employer shall ensure that a health record, containing approved particulars in respect of each of his employees to whom paragraph (1) relates, is made and maintained and that that record or a copy thereof is kept in a suitable form for at least 30 years from the date of the last entry made in it.

(4) Where an employer who holds records in accordance with paragraph (3) ceases to trade, he shall forthwith notify the Department thereof in writing and offer those records to the Department.

(5) Subject to regulation 16(4) if an employee is exposed to a substance mentioned in column 1 of Schedule 5 and is engaged in a process specified opposite thereto in column 2, the health surveillance required under paragraph (1) shall include medical surveillance under the supervision of an employment medical adviser or appointed doctor at intervals of not more than 12 months or at such shorter intervals as the employment medical adviser or appointed doctor may require.

(6) Where an employee is subject to medical surveillance in accordance with paragraph (5) and an employment medical adviser or appointed doctor has certified by an entry in the health record of that employee that in his professional opinion that employee should not be engaged in work which exposes him to any substance mentioned in column 1 of Schedule 5 or that he should only be so engaged under conditions specified in the record, the

employer shall not permit the employee to be engaged in such work except in accordance with the conditions, if any, specified in the health record, unless that entry has been cancelled by an employment medical adviser or appointed doctor.

(7) Where an employee is subject to medical surveillance in accordance with paragraph (5) and an employment medical adviser or appointed doctor has certified by an entry in his health record that medical surveillance should be continued after his exposure to that substance has ceased, the employer shall ensure that the medical surveillance of that employee is continued in accordance with that entry while he is employed by the employer, unless that entry has been cancelled by an employment medical adviser or appointed doctor.

(8) On reasonable notice being given, the employer shall allow any of his employees access to the health record which relates to him.

(9) An employee to whom this regulation applies shall, when required by his employer and at the cost of the employer, present himself during his working hours for such health surveillance procedures as may be required for the purposes of paragraph (1) and, in the case of an employee who is subject to medical surveillance in accordance with paragraph (5), shall furnish the employment medical adviser or appointed doctor who is to carry out such procedures with such information concerning his health as the employment medical adviser or appointed doctor may reasonably require.

(10) Where, for the purposes of carrying out his functions under these Regulations, an employment medical adviser or appointed doctor requires to inspect any workplace or any record kept for the purposes of these Regulations, the employer shall permit him to do so.

(11) Where an employee or an employer is aggrieved by any entry in a health record by an employment medical adviser or appointed doctor whereby the employer is required, under this regulation,

- (a) to suspend an employee from work which exposes him to a substance hazardous to health; or
- (b) to impose conditions on such work;

he may, by an application in writing to the Department within 28 days of the date on which he was notified of the entry, apply for that entry to be reviewed in accordance with a procedure approved for the purposes of this paragraph.

(12) The result of a review under paragraph (11) shall be notified to the employee concerned and his employer and entered in the health record in accordance with the approved procedure.

(13) In this regulation—

“appointed doctor” means a fully registered medical practitioner who is appointed for the time being in writing by the Department for the purposes of this regulation;

“employment medical adviser” means an employment medical adviser appointed under Article 48 of the Order of 1978;

“health surveillance” includes biological monitoring.



*Information, instruction and training for persons who may be exposed to substances hazardous to health*

**12.**—(1) An employer who undertakes work which may expose any of his employees to substances hazardous to health shall provide that employee with such information, instruction and training as is suitable and sufficient for him to know—

- (a) the risks to health created by such exposure; and
- (b) the precautions which should be taken against such exposure and against the risks to his health arising from it.

(2) Without prejudice to the generality of paragraph (1), the information provided under that paragraph shall include—

- (a) information on the results of any monitoring of exposure at the workplace in accordance with regulation 10 and, in particular, in the case of any substance hazardous to health specified in Schedule 1, the employee or his representatives shall be informed forthwith, if the results of such monitoring show that the maximum exposure limit has been exceeded; and
- (b) information on the collective results of any health surveillance undertaken in accordance with regulation 11 in a form calculated to prevent it from being identified as relating to any particular person.

(3) Every employer shall ensure that any person (whether or not his employee) who carries out any work in connection with the employer's duties under these Regulations has the information, instruction and training necessary for the purposes of these Regulations.

*Provisions relating to certain fumigations*

**13.**—(1) This regulation shall apply to fumigations in which the fumigant used or intended to be used is hydrogen cyanide, ethylene oxide, phosphine or methyl bromide, except that this regulation shall not apply to fumigations using a fumigant specified in column 1 of Schedule 6 when the nature of the fumigation is that specified opposite thereto in column 2.

(2) An employer shall not undertake any fumigation to which this regulation applies unless he has—

- (a) notified the persons specified in Part I of Schedule 7 of his intention to undertake the fumigation; and
- (b) provided those persons with the information specified in Part II of that Schedule,

at least 24 hours in advance, or such shorter time in advance, as the persons required to be notified may agree.

(3) An employer who undertakes a fumigation to which this regulation applies shall ensure that, before the fumigant is released, suitable warning notices have been affixed at all points of reasonable access to the premises or to those parts of the premises in which the fumigation is to be carried out and that after the fumigation has been completed, and the premises are safe to enter, those warning notices are removed.

*Exemption certificates*

**14.**—(1) Subject to paragraph (2) and to any of the provisions imposed by the European Communities in respect of the protection of workers from the risks related to exposure to chemical, physical and biological agents at work, the Department may, by a certificate in writing, exempt any person or class of persons or any substance or class of substances from all or any of the requirements or prohibitions imposed by these Regulations and any such exemption may be granted subject to conditions and to a limit of time and may be revoked by a certificate in writing at any time.

(2) 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 enactments 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.

*Defence in proceedings for contravention of these Regulations*

**15.** In any proceedings for an offence consisting of a contravention of these Regulations 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.

*Transitional provisions*

**16.**—(1) Where work which is liable to expose employees to substances hazardous to health was commenced before 11th April 1991 or within 3 months after that date, it shall be a sufficient compliance with regulation 6(1) if the assessment required by that regulation is made before 11th July 1991.

(2) Until 11th July 1991 respiratory protective equipment required to be approved in accordance with regulation 7(6) need not to be so approved, but until that date any such equipment which was required to be approved under any regulation revoked by these Regulations shall be approved in accordance with any such Regulations or in accordance with regulation 7(6).

(3) Where, in respect of the engineering controls to which regulation 9(2) applies, immediately before 11th April 1991 local exhaust ventilation plant was required to be thoroughly examined and tested under any statutory provisions revoked by these Regulations the first thorough examination and test under regulation 9(2) shall not be required until the date on which it would have next been required thereunder had they not been revoked.

(4) Where, in respect of an employee to whom regulation 11(1) applies, immediately before 11th April 1991 the employee was subject to health surveillance under any statutory provisions revoked by these Regulations, he shall not be required to be medically examined for the first time under regulation 11(5) until the date on which he would have next been required to be so examined thereunder had they not been revoked.

*Modifications relating to the Ministry of Defence etc.*

17.—(1) In this regulation, any reference to—

- (a) “visiting forces” is a reference to visiting forces within the meaning of any provision of Part I of the Visiting Forces Act 1952(a); and
- (b) “headquarters or organisation” is a reference to a headquarters or organisation designated for the purposes of the International Headquarters and Defence Organisations Act 1964(b).

(2) The Secretary of State for Defence may, in the interests of national security, by a certificate in writing exempt—

- (a) Her Majesty’s Forces;
- (b) visiting forces;
- (c) any member of a visiting force working in or attached to any headquarters or organisation; or
- (d) any person engaged in work involving substances hazardous to health, if that person is under the direct supervision of a representative of the Secretary of State for Defence,

from all or any of the requirements or prohibitions imposed by these Regulations and any such exemptions may be granted subject to conditions and to a limit of time and may be revoked at any time by a certificate in writing, except that, where any such exemption is granted, suitable arrangements shall be made for the assessment of the health risks created by the work involving substances hazardous to health and for adequately controlling the exposure to those substances of persons to whom the exemption relates.

(3) Regulation 11(11) shall not apply in relation to—

- (a) Her Majesty’s Forces;
- (b) visiting forces; or
- (c) any member of a visiting force working in or attached to any headquarters or organisation.

*Repeals, revocations and savings*

18.—(1) The provisions of—

- (a) the Quarries (Northern Ireland) Order 1983(c) specified in column 1 of Part I of Schedule 8; and
- (b) the Factories Act (Northern Ireland) 1965(d) specified in column 1 of Part II of Schedule 8,

are repealed to the extent set out in the entry opposite thereto in column 2 of the respective Part.

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(a) 1952 c. 67

(b) 1964 c. 5

(c) S.I. 1983/150 (N.I. 4)

(d) 1965 c. 20 (N.I.) amended by S.R. 1979 No. 246

(2) The Hydrogen Cyanide (Fumigation) Act (Northern Ireland) 1938(a) is repealed.

(3) The Regulations and Orders specified in column 1 of Schedule 9 are revoked or, where expressly stated, modified to the extent set out in the entry opposite thereto in column 2.

(4) Any record or register required to be kept under any Regulations or Orders revoked by paragraph (3) shall, notwithstanding those revocations, be kept in the same manner and for the same period as if these Regulations had not been made, except that the Department may approve the keeping of records at a place or in a form other than at the place where, or in the form in which, records were required to be kept under the Regulations or Orders so revoked.

Sealed with the Official Seal of the Department of Agriculture on 11th October 1990.

(L.S.)

*D. A. J. Hirrell*

Assistant Secretary

Sealed with the Official Seal of the Department of Economic Development on 11th October 1990.

(L.S.)

*Suzanna Cooper*

Assistant Secretary

Sealed with the Official Seal of the Department of the Environment on 11th October 1990.

(L.S.)

*Trevor Pearson*

Assistant Secretary

Sealed with the Official Seal of the Department of Health and Social Services on 11th October 1990.

(L.S.)

*J. Scott*

Assistant Secretary

## SCHEDULE 1

Regulations 2(1), 7(4)  
and 12(2)

## LIST OF SUBSTANCES ASSIGNED MAXIMUM EXPOSURE LIMITS

Substance	Formula	Reference Periods			
		Long-term maximum exposure limit (8-hour TWA reference period)		Short-term maximum exposure limit (10-minute reference period)	
		ppm		ppm	
		mg m <sup>-3</sup>		mg m <sup>-3</sup>	
Acrylonitrile	CH <sub>2</sub> =CHCN	2	4	—	—
Arsenic and compounds, except arsine and lead arsenate (as As)	As	—	0.2	—	—
Buta-1, 3-diene	CH <sub>2</sub> =CHCH=CH <sub>2</sub>	10	—	—	—
2-Butoxyethanol	C <sub>4</sub> H <sub>9</sub> OCH <sub>2</sub> CH <sub>2</sub> OH	25	120	—	—
Cadmium and cadmium compounds, except cadmium oxide fume and cadmium sulphide pigments (as Cd)	Cd	—	0.05	—	—
Cadmium oxide fume (as Cd)	CdO	—	0.05	—	0.05
Cadmium sulphide pigments (respirable dust as Cd)	CdS	—	0.04	—	—
Carbon disulphide	CS <sub>2</sub>	10	30	—	—
Dichloromethane	CH <sub>2</sub> Cl <sub>2</sub>	100	350	—	—
2,2'-Dichloro-4,4'-methylene dianiline (MbOCA)	CH <sub>2</sub> (C <sub>6</sub> H <sub>3</sub> ClNH <sub>2</sub> ) <sub>2</sub>	—	0.005	—	—
2-Ethoxyethanol	C <sub>2</sub> H <sub>5</sub> OCH <sub>2</sub> CH <sub>2</sub> OH	10	37	—	—
2-Ethoxyethyl acetate	C <sub>2</sub> H <sub>5</sub> OCH <sub>2</sub> CH <sub>2</sub> OOCCH <sub>3</sub>	10	54	—	—
Ethylene dibromide	BrCH <sub>2</sub> CH <sub>2</sub> Br	1	8	—	—
Ethylene oxide	CH <sub>2</sub> CH <sub>2</sub> O	5	10	—	—
Formaldehyde	HCHO	2	2.5	2	2.5
Hydrogen cyanide	HCN	—	—	10	10
Isocyanates, all (as-NCO)		—	0.02	—	0.07
Man-made mineral fibre		—	5	—	—
1-Methoxypropan-2-ol	CH <sub>3</sub> OCH <sub>2</sub> CHOHCH <sub>3</sub>	100	360	—	—
2-Methoxyethanol	CH <sub>3</sub> OCH <sub>2</sub> CH <sub>2</sub> OH	5	16	—	—
2-Methoxyethyl acetate	CH <sub>3</sub> COOCH <sub>2</sub> CH <sub>2</sub> OCH <sub>3</sub>	5	24	—	—
Rubber Process Dust		—	8	—	—

Substance	Formula	Reference Periods			
		Long-term maximum exposure limit (8-hour TWA reference period) ppm mg m <sup>-3</sup>		Short-term maximum exposure limit (10-minute reference period) ppm mg m <sup>-3</sup>	
*Rubber Fume		—	0.75	—	—
Styrene	C <sub>6</sub> H <sub>5</sub> CH=CH <sub>2</sub>	100	420	250	1050
1,1,1-Trichloroethane	CH <sub>3</sub> CCl <sub>3</sub>	350	1900	450	2450
Trichloroethylene	CCl <sub>2</sub> =CHCl	100	535	150	802
†Vinyl chloride	CH <sub>2</sub> =CHCl	7	—	—	—
Vinylidene chloride	CH <sub>2</sub> =CCl <sub>2</sub>	10	40	—	—
Wood dust (hard wood)		—	5	—	—

\* Limit relates to cyclohexane soluble material

† Vinyl chloride is also subject to an overriding annual maximum exposure limit of 3 ppm

## SCHEDULE 2

Regulation 4(1)

## PROHIBITION OF CERTAIN SUBSTANCES HAZARDOUS TO HEALTH FOR CERTAIN PURPOSES

Item No.	Column 1 <i>Description of substance</i>	Column 2 <i>Extent to which the substance is prohibited</i>
1.	2-naphthylamine; benzidine; 4-aminodiphenyl; 4-nitrodiphenyl; their salts and any substance containing any of those compounds, in any other substance in a total concentration exceeding 0.1 per cent.	Manufacture and use for all purposes including any manufacturing process in which a substance described in column 1 of this item is formed.
2.	Sand or other substance containing free silica.	Use as an abrasive for blasting articles in any blasting apparatus (see note 1).
3.	A substance— (a) containing compounds of silicon calculated as silica to the extent of more than 3% by weight of dry material; or (b) composed of or containing dust or other matter deposited from a fettling or blasting process.	Use as a parting material in connection with the making of metal castings (see notes 2 and 3).
4.	Carbon disulphide.	Use in the cold-cure process of vulcanising in the proofing of cloth with rubber.
5.	Oils other than white oil, or oil of entirely animal or vegetable origin or entirely of mixed animal and vegetable origin (see note 4).	Use for oiling the spindles of self-acting mules.
6.	Dust or powder of a refractory material containing not less than 80 per cent. of silica other than natural sand.	Use for sprinkling the moulds of silica bricks, namely bricks or other articles composed of refractory material and containing not less than 80 per cent. of silica.
7.	White phosphorus.	Use in the manufacture of matches.
8.	Hydrogen cyanide.	Use in fumigation except when— (a) released from an inert material in which hydrogen cyanide is absorbed;

Item No.	Column 1	Column 2
	<i>Description of substance</i>	<i>Extent to which the substance is prohibited</i>
		<p>(b) generated from a gassing powder (see note 5); or</p> <p>(c) applied from a cylinder through suitable piping and applicators other than for fumigations in the open air to control or kill mammal pests.</p>

*Notes*

1. "Blasting apparatus" means apparatus for cleaning, smoothing, roughening or removing of part of the surface of any article by the use as an abrasive of a jet of sand, metal shot or grit or other material propelled by a blast of compressed air or steam or by a wheel.

2. This prohibition shall not prevent the use as a parting material of the following substances—

natural sand;  
 zirconium silicate (zircon);  
 calcined china clay;  
 calcined aluminous fireclay;  
 sillimanite;  
 calcined or fused alumina;  
 olivine.

3. "Use as a parting material" means the application of the material to the surface or parts of the surface of a pattern or of a mould so as to facilitate the separation of the pattern from the mould or the separation of parts of the mould.

4. "White oil" means a refined mineral oil conforming to a specification approved by the Department and certified by its manufacturer as so conforming.

5. "Gassing powder" means a chemical compound in powder form which reacts with atmospheric moisture to generate hydrogen cyanide.



## SCHEDULE 3

Regulation 9(2)(a)

FREQUENCY OF THOROUGH EXAMINATION AND TEST OF LOCAL EXHAUST  
VENTILATION PLANT USED IN CERTAIN PROCESSES

Column 1 <i>Process</i>	Column 2 <i>Minimum Frequency</i>
Processes in which blasting is carried out in or incidental to the cleaning of metal castings, in connection with their manufacture.	Every month.
Processes, other than wet processes, in which metal articles (other than of gold, platinum or iridium) are ground, abraded or polished using mechanical power, in any room for more than 12 hours in any week.	Every 6 months.
Processes giving off dust or fume in which non-ferrous metal castings are produced.	Every 6 months.
Jute cloth manufacture.	Every month.

## SCHEDULE 4

## SPECIFIC SUBSTANCES AND PROCESSES FOR WHICH MONITORING IS REQUIRED

Column 1 <i>Substance or Process</i>	Column 2 <i>Minimum Frequency</i>
Vinyl chloride monomer.	Continuous or in accordance with a procedure approved by the Department.
Vapour or spray given off from vessels at which an electrolytic chromium process is carried on, except trivalent chromium.	Every 14 days.

## MEDICAL SURVEILLANCE

Column 1 <i>Substances for which medical surveillance of an employee is appropriate</i>	Column 2 <i>Processes engaged in by the employee</i>
Vinyl chloride monomer (VCM).	In manufacture, production, reclamation, storage, discharge, transport, use or polymerisation of VCM.
Nitro or amino derivatives of phenol and of benzene or its homologues.	In the manufacture of nitro or amino derivatives of phenol and of benzene or its homologues and the making of explosives with the use of any of these substances.
Potassium or sodium chromate or dichromate.	In manufacture of the substances specified opposite.
1-Naphthylamine and its salts. Orthotolidine and its salts. Dianisidine and its salts. Dichlorbenzidine and its salts.	In manufacture, formation or use of the substances specified opposite.
Auramine, Magenta.	In manufacture of the substances specified opposite.
Carbon disulphide. Disulphur dichloride. Benzene, including benzol. Carbon tetrachloride. Trichlorethylene.	Processes in which the substances specified opposite are used, or given off as vapour, in the manufacture of indiarubber or of articles or goods made wholly or partially of indiarubber.
Pitch.	In manufacture of blocks of fuel consisting of coal, coal dust, coke or slurry with pitch as a binding substance.

## FUMIGATIONS EXCEPTED FROM REGULATION 13

Column 1 <i>Fumigant</i>	Column 2 <i>Nature of fumigation</i>
Hydrogen cyanide.	Fumigations carried out for research. Fumigations in fumigation chambers. Fumigations in the open air to control or kill mammal pests.
Methyl bromide.	Fumigations carried out for research. Fumigations in fumigation chambers. Fumigations of soil outdoors under gas-proof sheeting where not more than 1000kg is used in any period of 24 hours on the premises. Fumigations of soil under gas-proof sheeting in glasshouses where not more than 500kg is used in any period of 24 hours on the premises. Fumigations of compost outdoors under gas-proof sheeting where not more than 10kg of methyl bromide is used in any period of 24 hours on the premises. Fumigations under gas-proof sheeting inside structures other than glasshouses and mushroom houses were not more than 5kg of methyl bromide is used in each structure during any period of 24 hours. Fumigations of soil or compost in mushroom houses were not more than 5kg of methyl bromide is used in any one fumigation in any period of 24 hours. Fumigations of containers where not more than 5kg of methyl bromide is used in any one fumigation in a period of 24 hours.
Phosphine.	Fumigations carried out for research. Fumigations in fumigation chambers. Fumigations under gas-proof sheeting inside structures where not more than 1kg phosphine in each structure is used in any period of 24 hours. Fumigations in containers where not more than 0.5kg phosphine is used in any one fumigation in any period of 24 hours. Fumigations in individual impermeable packages. Fumigations in the open air to control or kill mammal pests.
Ethylene oxide.	Fumigations carried out for research. Fumigations in fumigation chambers.

## NOTIFICATION OF CERTAIN FUMIGATIONS

## PART I

## PERSONS TO WHOM NOTIFICATIONS MUST BE MADE

1. In the case of a fumigation to be carried out within the area of a harbour authority, advance notification of fumigation shall, for the purposes of regulation 13(2)(a), be given to—

- (a) that authority;
- (b) an inspector appointed under Article 21 of the Order of 1978, if that inspector so requires; and
- (c) where the fumigation—
  - (i) is to be carried out on a sea going ship, the chief fire officer of the area in which the ship is situated and the officer in charge of the office of Her Majesty's Customs and Excise at the harbour, or
  - (ii) is the space fumigation of a building, the chief fire officer of the area in which the building is situated.

2. In the case of a fumigation, other than a fumigation to which paragraph (1) applies, advance notification of fumigation shall be given to—

- (a) the police officer for the time being in charge of the police station for the police district in which the fumigation is carried out;
- (b) an inspector appointed under Article 21 of the Order of 1978 if that inspector so requires; and
- (c) where the fumigation is to be carried out on a sea going ship or is the space fumigation of a building, the chief fire officer of the area in which the ship or building is situated.

## PART II

## INFORMATION TO BE GIVEN IN ADVANCE NOTICE OF FUMIGATIONS

3. The information to be given in a notification made for the purposes of regulation 13(2) shall include the following—

- (a) the name, address and place of business of the fumigator and his telephone number;
- (b) the name of person requiring the fumigation to be carried out;
- (c) the address and description of premises where the fumigation is to be carried out;
- (d) the date on which the fumigation is to be carried out and the estimated time of commencement and completion;
- (e) the name of the operator in charge of the fumigation; and
- (f) the fumigant to be used.

## REPEALS

## PART I

## REPEALS OF THE PROVISIONS OF THE QUARRIES (NORTHERN IRELAND) ORDER 1983

Column 1 <i>Provision</i>	Column 2 <i>Extent of repeal</i>
Article 4	The whole Article.

## PART II

## REPEALS OF THE PROVISIONS OF THE FACTORIES ACT (NORTHERN IRELAND) 1965

Column 1 <i>Provision</i>	Column 2 <i>Extent of repeal</i>
Section 4(1).	The words from “, and for rendering harmless” to the end of the subsection.
Section 62.	The whole section.
Section 63.	The whole section insofar as it remains in force.
Section 66.	The whole section.
Section 76.	The whole section.
Section 77.	The whole section.
Section 119.	Subsections (1)(d) and (3)(b).

## REVOCATIONS OF REGULATIONS AND ORDERS

Column 1 <i>Regulations or Order</i>	Column 2 <i>Extent of Revocation</i>
Regulations dated 12th December 1905 for the processes of sorting, willeying, washing, combing and carding wool, goat hair and camel hair and processes incidental thereto, (The Wool, Goat-Hair and Camel-Hair Regulations 1905) S.R. & O. 1905/1293, amended by S.R. 1980 No. 438 and S.R. 1982 No. 429.	The whole Regulations insofar as they remain in force.
Regulations dated 26th February 1906 in respect of the processes of spinning and weaving flax and tow and processes incidental thereto, (The Flax and Tow Spinning and Weaving Regulations 1906), S.R. & O. 1906/177.	Regulations 1, 2 and 12.
Regulations dated 28th August 1907 for the processes of spinning and weaving hemp or jute, or hemp or jute tow and processes incidental thereto, (The Hemp Spinning and Weaving Regulations 1907), S.R. & O. 1907/660.	Regulations 1, 2 and 7.
Regulations dated 20th December 1907 in respect of processes involving the use of horsehair from China, Siberia or Russia, (The Horsehair Regulations 1907), S.R. & O. 1907/984, amended by S.R. 1980 No. 438 and S.R. 1982 No. 429.	The whole Regulations.
Regulations dated 18th December 1908 for use of East Indian Wool, (The East India Wool Regulations 1908), S.R. & O. 1908/1287.	The whole Regulations.
Order dated 22nd March 1918 for securing the welfare of the workers employed in factories or parts of factories in which bichromate of potassium or sodium is used in tanning by the "two-bath" process, (The Tanning (Two-Bath Process) Welfare Order 1918), S.R. & O. 1918/368, amended by S.R. & O. (N.I.) 1965 No. 150.	The whole Order insofar as it remains in force.
Order dated 22nd March 1918 for securing the welfare of the workers employed in factories or parts of factories in which bichromate of potassium or sodium is used in dyeing other than job-dyeing, (The Dyeing (Use of Bichromate of Potassium or Sodium) Welfare Order 1918), S.R. & O. 1918/369, amended by S.R. & O. (N.I.) 1965 No. 150.	The whole Order insofar as it remains in force.

Column 1 <i>Regulations or Order</i>	Column 2 <i>Extent of Revocation</i>
Order dated 15th August 1919 (The Fruit Preserving Order 1919), S.R. & O. 1919/1136, amended by S.R. & O. (N.I.) 1965 No. 150.	Article 6.
The Hollow-ware and Galvanising Welfare Order 1921, S.R & O. 1921/2032.	The whole Order.
Hides and Skins Regulations 1921, S.R. & O. 1921/2076, amended by S.R. & O. (N.I.) 1965 No. 150, S.R. 1980 No. 438 and S.R. 1982, No. 429.	The whole Regulations.
The Chemical Works Regulations 1922, S.R. & O. (N.I.) 1922 No. 66, amended by S.R. & O. (N.I.) 1965 No. 150, S.R. 1975 No. 228, S.R. 1979 No. 187, S.R. 1981 No. 269 and S.R. 1982 No. 429.	The whole Regulations insofar as they remain in force.
The Bakehouses Welfare Order (Northern Ireland) 1927 No. 128, amended by S.R. & O. (N.I.) 1965 No. 150.	The whole Order insofar as it remains in force.
Grinding of Metals Special Regulations (Northern Ireland) 1950, S.R. & O. (N.I.) 1950 No. 203; amended by S.R. & O. (N.I.) 1950 No. 205, S.R. & O. (N.I.) 1971 No. 117 and S.R. 1982 No. 45.	The whole Regulations insofar as they remain in force.
Blasting (Castings and Other Articles) Special Regulations (N.I.) 1950, S.R. & O. (N.I.) 1950 No. 205, amended by S.R. 1982 No. 185.	The whole Regulations.
Foundries (Parting Materials) Special Regulations (N.I.) 1951, S.R. & O. (N.I.) 1951 No. 51.	The whole Regulations.
The Iron and Steel Foundries Regulations (N.I.) 1955, S.R. & O. (N.I.) 1955 No. 193; amended by S.R. 1975 No. 228 and S.R. 1982 No. 185.	<p>In regulation 2(1) the definitions—</p> <ul style="list-style-type: none"> <li>(a) “approved respirator”;</li> <li>(b) “dressing or fettling operations”;</li> <li>(c) “knock-out operations”.</li> </ul> <p>The proviso to regulation 3(2). Regulation 7. Regulations 8(1)(b) and (2). In regulation 10(1) “, 7”.</p> <p>In regulation 3(1)(a) “, 20”.</p> <p>In the full out words at the end of regulation 3(1), the number “22”.</p> <p>Regulation 20. Regulation 22.</p>
Construction (General Provisions) Regulations (N.I.) 1963, S.R. & O. (N.I.) 1963 No. 87, amended by S.R. 1975 No. 228.	<p>In regulation 3(1)(a) “, 20”.</p> <p>In the full out words at the end of regulation 3(1), the number “22”.</p> <p>Regulation 20. Regulation 22.</p>
Non-ferrous Metals (Melting and Founding) Regulations (N.I.) 1964, S.R. & O. (N.I.) 1964 No. 46; amended by S.R. 1975 No. 228 and S.R. 1982 No. 185.	<p>In regulation 2(2) the definition “approved”.</p> <p>In regulation 3(4) the words “Regulation 11(5) and”.</p>



Column 1 <i>Regulations or Order</i>	Column 2 <i>Extent of Revocation</i>
Carcinogenic Substances Regulations (N.I.) 1967, S.R. & O. (N.I.) 1967 No. 266, amended by S.R. 1979 No. 187.	Regulations 11 and 12. Regulation 13(1)(b). Regulation 13(3). Regulation 19.
Abstract of Factories Act (N.I.) (Construction) Order 1966, S.R. & O. (N.I.) 1966 No. 302.	The whole Regulations.
Abstract of Factories Act (N.I.) Order 1969, S.R. & O. (N.I.) 1969 No. 46; amended by S.R. 1982 No. 429 and S.R. 1984 No. 283.	In the Schedule— in paragraph 7, the words from “Everyone who employs” to “are mixed”. In the Schedule— in paragraph 4 the words from “All practicable measures” to the end of that paragraph; paragraph 8; paragraph 12.
Shipbuilding and Ship-repairing Regulations (N.I.) 1971, S.R. & O. (N.I.) 1971 No. 372, amended by S.R. 1975 No. 228, S.R. 1982 No. 429 and S.R. 1986 No. 36.	Regulation 4(1)(a) shall be modified by substituting for the words “to 76” the words “to 74”. Regulation 4(8) shall be modified by substituting for the words “71 and 75(2)” the words “and 71”. Regulation 52. Regulations 75 and 76.
Chromium Plating (Special) Regulations (N.I.) 1975, S.R. 1975 No. 203.	The whole Regulations.
Employment Medical Advisory Service (Factories Act Legislation Amendment) Regulations (N.I.) 1979 S.R. 1979 No. 187; amended by S.R. 1986 No. 36.	In Part II of the Schedule the entries relating to— (a) The Chemical Works Regulations (N.I.) 1922; (b) Carcinogenic Substances Regulations (N.I.) 1967.
Health and Safety (Animal Products) (Metrication) Regulations (N.I.) 1980, S.R. 1980 No. 438.	The whole Regulations.
Chemical Works (Metrication) Regulations (N.I.) 1981, S.R. 1981 No. 269, amended by S.R. 1982 No. 429.	The whole Regulations.
Grinding of Metals (Metrication) Regulations (N.I.) 1982, S.R. 1982 No. 45.	The whole Regulations.
Health and Safety (Foundries etc.) (Metrication) Regulations (N.I.) 1982, S.R. 1982 No. 185.	In the Schedule the entries relating to— (a) The Blasting (Castings and other Articles) Special Regulations (N.I.) 1950.
Agriculture (Poisonous Substances) Regulations (N.I.) 1987, S.R. 1987 No. 364.	The whole Regulations.

## EXPLANATORY NOTE

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

These Regulations impose duties on employers to protect employees and other persons who may be exposed to substances hazardous to health. The regulations also impose certain duties on employees.

By regulation 3 duties are imposed on employers (who for the purposes of these Regulations include self-employed persons) for the protection of their employees and of other persons who may be affected by their work.

Regulation 4 prohibits the supply and use at work of specified substances, and also prohibits the use of specified substances in specified processes (Schedule 2).

The application of the provisions which relate to the exposure of employees (set out in regulations 6 to 12) is defined by regulation 5.

Regulation 6 requires employers to assess the risks to health created by work which is liable to expose their employees to substances hazardous to health and the steps that need to be taken by them to meet the requirements of the Regulations.

Regulation 7 imposes a duty on employers to prevent or, where this is not reasonably practicable, adequately to control the exposure to substances hazardous to the health of their employees. Where the substance is one for which a maximum exposure limit is specified in Schedule 1, that limit, so far as the inhalation of the substance is concerned, must not be exceeded and the exposure must be reduced so far as is reasonably practicable below it.

As respects a substance for which the Department of Economic Development has approved an occupational exposure standard, control to that standard is to be treated as adequate so far as inhalation of the substance is concerned. Regulation 7 also requires prevention or adequate control to be achieved so far as is reasonably practicable by means other than the use of personal protective equipment, and that where adequate control is achieved by the use of respiratory protective equipment, that equipment should be of a type or conform to a standard approved by the Department.

Requirements are imposed by regulation 8 upon employers and employees to make proper use of the control measures provided, and by regulation 9 upon employers for the maintenance of those control measures. The monitoring of exposure to substances hazardous to health is required for the substances and processes specified in Schedule 4 and in any other case where such monitoring is requisite for maintaining adequate control or protecting the health of employees (regulation 10).

Regulation 11 requires that, where appropriate for the protection of the health of employees, they must be under health surveillance and in the case of employees who are exposed to one of the substances and engaged in a process

specified in Schedule 5 that health surveillance must include medical surveillance by an employment medical adviser or appointed doctor. Regulation 12 requires that employees who may be exposed to substances hazardous to health are given suitable and sufficient information, instruction and training.

A person who undertakes fumigations with specified fumigants is required by regulation 13 to notify in advance the persons specified in Schedule 7. Exceptions to this notification requirement are listed in Schedule 6.

The Regulations provide for exemptions in certain circumstances (regulation 14). Regulation 15 provides for a defence in the case of a contravention of the Regulations and regulation 16 for certain transitional provisions. Modifications relating to the Ministry of Defence are introduced by regulation 17.

The provisions of the Quarries (Northern Ireland) Order 1983 and of the Factories Act (Northern Ireland) 1965 which are specified in Schedule 8 are repealed by regulation 18, which also repeals the Hydrogen Cyanide (Fumigation) Act (Northern Ireland) 1938 and revokes or modifies the Regulations and Orders specified in Schedule 9. This regulation also provides that notwithstanding those revocations, requirements in them for the keeping of any record or registration shall remain in force.

The Regulations are consistent with the provisions of the Council Directive No. 80/1107/EEC on the protection of workers from the risk related to exposure to chemical, physical and biological agents at work (O.J. No. L327, 3.12.80, p. 8).

Copies of the publications mentioned in the Regulations are obtainable as follows:—

- (a) the approved list (3rd Edition) (ISBN 0 11 885542 5) is obtainable from Her Majesty's Stationery Office, 80 Chichester Street, Belfast BT1 4JY.
- (b) a list of the occupational exposure standards which the Health and Safety Commission has approved and which has been approved by the Department is obtainable from the Health and Safety Executive, Baynards House, 1 Chepstow Place, London W2 4TF.

Codes of Practice approved by the Health and Safety Agency for Northern Ireland under Article 18(1) of the Health and Safety at Work (Northern Ireland) Order 1978 will be published and will give guidance on the Regulations. These Codes of Practice may be obtained from Her Majesty's Stationery Office, 80 Chichester Street, Belfast BT1 4JY.

A person who contravenes the Regulations 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 £2,000 or, on conviction on indictment, to a fine.