1992 No. 461

HEALTH AND SAFETY

Health and Safety (Miscellaneous Provisions) (Factories Metrication etc) Regulations (Northern Ireland) 1992

Made . . . . . *28th October 1992*

Coming into operation . . . *7th December 1992*

The Department of Economic Development, being the Department concerned(**a**), in exercise of the powers conferred on it by Articles 17(1) to (5), 45 and 55(2) of, and paragraphs 1(2) and (4), 8 and 15 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 it to be appropriate, hereby makes the following Regulations:—

Citation and commencement

1. These Regulations may be cited as the Health and Safety (Miscellaneous Provisions) (Factories Metrication etc) Regulations (Northern Ireland) 1992 and shall come into operation on 7th December 1992.

PART I

METRICATION AND REVOCATIONS OF MISCELLANEOUS PROVISIONS

Interpretation

2. In this Part "the principal instruments" means the Orders and Regulations referred to in column 1 of the Schedule.

Amendments to the principal instruments to substitute metric measurements for imperial measurements

3. The provisions of the principal instruments specified in column 1 of the Schedule (the subject matter of which is described in column 2) shall be amended by substituting for the measurements or expressions set out opposite thereto in column 3, the measurements or expressions set out in the corresponding entry in column 4.

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

Application to existing plant, buildings and other permanent structures

4. Where the measurements relating to any plant, buildings or other permanent structure in existence or under construction immediately before the coming into operation of these Regulations complied with the requirements of the principal instruments as then in operation in so far as they related to the measurements of that plant, building or other permanent structure, then such compliance shall be deemed to be compliance with the principal instruments as amended by these Regulations.

Revocations

5.—(1) The Order dated 30th December 1903 modifying the proportion of cubic feet of space to be provided in certain bakehouses (The Modification of Space in Bakehouses Order 1903)(**a**) shall be revoked.

(2) Articles 7 and 8 of the Order dated 21st July 1919 securing the welfare of workers in oil cake mills (Welfare of Workers in Oil Cake Mills Order 1919)(**b**) shall be revoked.

(3) In the Definitions listed in the Woodworking Machinery Regulations 1922(**c**) the definition of "Gauge" shall be revoked.

PART II

AMENDMENTS TO STATUTORY PROVISIONS RELATING TO HUMID FACTORIES NOT INVOLVING METRICATION

Amendments to the Factories Act (Northern Ireland) 1965

6.—(1) Section 67 of the Factories Act (Northern Ireland) 1965(**d**) (relating to humid factories) shall be amended in accordance with the following paragraphs.

(2) After subsection (2) there shall be inserted the following subsection—

"(2A) In this section—

"dry bulb temperature" means the temperature measured by an accurate and properly maintained thermometer (which may form part of the hygrometer) and any reference in this section to a dry bulb thermometer, or without qualification to a thermometer, shall be taken to be a reference to such a thermometer and a reference without qualification to temperature shall be taken to be a reference to the dry bulb temperature;

"hygrometer" means an accurate and properly maintained and calibrated instrument for the measurement of the relative humidity in the workplace;

(**a**) S.R. & O. 1903/1157
(**b**) S.R. & O. 1919/959
(**c**) S.R. & O. (N.I.) 1922 No. 72 (p. 54) amended by S.R. & O. (N.I.) 1927 No. 64 (p. 90) and S.R. & O. (N.I.) 1946 No. 65 (p. 245)
(**d**) 1965 c. 20 (N.I.); relevant amending regulations are S.R. 1984 No. 283

"wet bulb temperature" means either—

(*a*) the temperature indicated by the wet bulb of a static hygrometer which relies on natural circulation of air around the thermometers; or

(*b*) the temperature calculated from the dry bulb temperature and relative humidity by the method approved for the time being by the Department of Economic Development,

and any reference in this section to the reading of the wet bulb thermometer shall be treated as a reference to the wet bulb temperature.".

(3) In subsection (3)—

(*a*) in the opening words after the words "two hygrometers" there shall be inserted the words "and a thermometer close to each hygrometer", and the words from "conforming to" to "be prescribed" shall be repealed;

(*b*) in sub-paragraph (*a*) for the word "fixed" there shall be substituted the word "placed";

(*c*) sub-paragraph (*b*) shall be repealed;

(*d*) in sub-paragraph (*c*) after the words "read the hygrometers" there shall be inserted the words "and the thermometers", and at the end of the sub-paragraph, the words from "which shall be provided" to the end of that sub-paragraph shall be repealed;

(*e*) for sub-paragraph (*d*) there shall be substituted the following sub-paragraph—

"(*d*) the records of the wet bulb temperature or temperature and hygrometer readings shall be kept by the occupier for at least two years from when they were made and the occupier shall give his employees immediate access to those records on request together with such information as is necessary for their interpretation.".

(4) In subsection (5) for the words "in the table of humidity" there shall be substituted the words "in Schedule 1".

(5) In subsection (7), for the word "fixed"—

(*a*) in the first place where it occurs, there shall be substituted "and one thermometer close to it placed"; and

(*b*) in the second place where it occurs, there shall be substituted "and thermometers placed".

(6) In subsection (8) the words from "and a copy" to the end of the subsection shall be repealed.

Amendments to the Flax and Tow Spinning and Weaving Regulations 1906

7.—(1) In addition to the amendments made by Part I (relating to metrication) the Flax and Tow Spinning and Weaving Regulations 1906(**a**) shall be amended in accordance with the following paragraphs.

(**a**) S.R. & O. 1906/177, amended by S.R. 1990 No. 374

(2) In the preliminary part of the Regulations dealing with definitions, after the words "In these Regulations" there shall be inserted at the appropriate places the following definitions—

' "Department" means the Department of Economic Development.

"Dry bulb temperature" means the temperature measured by an accurate and properly maintained thermometer (which may form part of the hygrometer) and any reference in these Regulations to a dry bulb thermometer or without qualification to a thermometer shall be taken to be a reference to such a thermometer and a reference without qualification to temperature shall be taken to be a reference to the dry bulb temperature.

"Hygrometer" means an accurate and properly maintained and calibrated instrument for the measurement of the relative humidity in the workplace.

"Wet bulb temperature" means either—

(*a*) the temperature indicated by the wet bulb of a static hygrometer which relies on natural circulation of the air around the thermometer; or

(*b*) the temperature calculated from the dry bulb temperature and relative humidity by the method approved for the time being by the Department,

and any reference in these Regulations to the reading of the wet bulb thermometer shall be treated as a reference to the wet bulb temperature.'.

(3) For regulation 4 there shall be substituted the following regulation—

"**4.**—(1) In every room in which wet spinning is carried on, or in which artificial humidity is produced in aid of manufacture a hygrometer and a thermometer close to the hygrometer shall be positioned in the centre of the room or in such other position as may be directed by an inspector by notice in writing.

(2) The hygrometer and the thermometer shall be read between 10 and 11 a.m. on every day that any person is employed in the room and again between 3 and 4 p.m. on every day that any person is employed in the room after 1 p.m. and a record of all such readings shall be kept.

(3) The said record shall be kept by the occupier for at least two years from when it was made and the occupier shall give his employees immediate access to those records on request together with such information as is necessary for their interpretation.

(4) Paragraphs (2) and (3) shall not apply to any room in which the differences of reading between the wet and dry bulb thermometers is never less than 2 degrees, if notice of the intention to work on that system has been given in writing to an inspector.".

(4) There shall be inserted the following regulation as regulation 12—

"**12.**—(1) Subject to paragraph (2), the Department may, by a certificate in writing, exempt any person or class of persons, 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, that it proposes to attach to the exemption; and

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

it is satisfied that the health or safety of persons who are likely to be affected by the exemption will not be prejudiced in consequence of it.''.

Amendments to the Hemp Spinning and Weaving Regulations 1907

8.—(1) In addition to the amendments made by Part I (relating to metrication) the Hemp Spinning and Weaving Regulations 1907(**a**) shall be amended in accordance with the following paragraphs.

(2) In the preliminary part of the Regulations dealing with definitions, after the words ''In these Regulations'' there shall be inserted at the appropriate places the following definitions—

' ''Department'' means the Department of Economic Development.

''Dry bulb temperature'' means the temperature measured by an accurate and properly maintained thermometer (which may form part of the hygrometer) and any reference in these Regulations to a dry bulb thermometer or without qualification to a thermometer shall be taken to be a reference to such a thermometer and a reference without qualification to temperature shall be taken to be a reference to the dry bulb temperature.

''Hygrometer'' means an accurate and properly maintained and calibrated instrument for the measurement of the relative humidity in the workplace.

''Wet bulb temperature'' means either—

(*a*) the temperature indicated by the wet bulb of a static hygrometer which relies on natural circulation of air around the thermometer; or

(*b*) the temperature calculated from the dry bulb temperature and relative humidity by the method approved for the time being by the Department,

and any reference in these Regulations to the reading of the wet bulb thermometer shall be treated as a reference to the wet bulb temperature.'.

(3) For regulation 6 there shall be substituted the following regulation—

''**6.**—(1) In every room in which artificial humidity of air is produced in aid of manufacture, a hygrometer and a thermometer close to the hygrometer shall be positioned in the centre of the room or in such other position as may be directed by an inspector by notice in writing.

(**a**) S.R. & O. 1907/660, amended by S.R. 1990 No. 374

(2) The hygrometer and the thermometer shall be read between 11 and 12 a.m. on every day that any person is employed in the room and again between 4 and 5 p.m. on every day that any person is employed in the room after 1 p.m. and a record of all such readings shall be kept.

(3) The said record shall be kept by the occupier for at least two years from when it was made and the occupier shall give his employees immediate access to those records on request together with such information as is necessary for their interpretation.

(4) Paragraphs (2) and (3) shall not apply to any room in which the difference of reading between the wet and dry bulb thermometers is never less than 2 degrees, if notice of the intention to work on that system has been given in writing to an inspector.''.

(4) There shall be inserted the following regulation as regulation 7—

''7.—(1) Subject to paragraph (2), the Department may, by a certificate in writing, exempt any person or class of persons, 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, that it proposes to attach to the exemption; and

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

it is satisfied that the health or safety of persons who are likely to be affected by the exemption will not be prejudiced in consequence of it.''.

Sealed with the Official Seal of the Department of Economic Development on 28th October 1992.

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

SCHEDULE

AMENDMENTS TO THE PRINCIPAL INSTRUMENTS — Regulation 3

1 *Provisions to be amended*	2 *Subject matter of measurement*	3 *Present measurement*	4 *Measurement to be substituted*
Flax and Tow Spinning and Weaving Regulations 1906(a)			
Definitions	Degrees	Fahrenheit	Celsius
Regulation 3	Minimum temperature of room where hand-hackling, roughing or machine-hackling carried on	50 degrees	10 degrees
	Minimum temperature of room where sorting, carding or preparing is carried on	55 degrees	13 degrees
	Temperature of direct draught below which no person should be exposed	50 degrees	10 degrees
Regulation 5	Minimum difference between wet and dry bulb thermometer readings	2 degrees	1 degree
Regulation 6	Temperature of water absorbing oxygen from potassium permanganate solution	60 degrees	16 degrees
	Maximum amount of oxygen absorbed by water used for humidification	0.5 grain of oxygen per gallon	7 milligrams of oxygen per litre
Regulation 8	Temperature in rooms into which steam is introduced	70 degrees	21 degrees
Regulation 9	Pitch of wet-spinning frames required to have splash guards	2¾ inches	70 millimetres
Regulation 11	Minimum difference between wet and dry bulb thermometer readings	4 degrees	2 degrees

(a) S.R. & O. 1906/177, amended by S.R. 1990 No. 374

1 *Provisions to be amended*	2 *Subject matter of measurement*	3 *Present measurement*	4 *Measurement to be substituted*
Paints and Colours Regulations 1907(a)			
Application, paragraph (2)	Minimum weight of parcels or kegs above which the prohibition on women's employment applies	14 lbs	6 kilograms
Hemp Spinning and Weaving Regulations 1907(b)			
Definitions	Degrees	Fahrenheit	Celsius
Regulation 4	Minimum temperature of room where machine-hackling is carried on	50 degrees	10 degrees
	Minimum temperature of room where carding or preparing is carried on	55 degrees	13 degrees
Regulation 5	Temperature of direct draught below which no person should be exposed	50 degrees	10 degrees
Welfare of Workers in Oil Cake Mills Order 1919(c)			
Article 6	Temperature of bath water	100 degrees Fahrenheit	38 degrees Celsius

(a) S.R. & O. 1907/17, amended by S.R. 1979 No. 187 and S.R. 1986 No. 36
(b) S.R. & O. 1907/660, amended by S.R. 1990 No. 374
(c) S.R. & O. 1919/959

1 *Provisions to be amended*	2 *Subject matter of measurement*	3 *Present measurement*	4 *Measurement to be substituted*
Woodworking Machinery Regulations 1922(a)			
Regulation (8)	Minimum temperature of room in which a woodworking machine is being worked	50 degrees	10 degrees Celsius
Regulation (10)(*a*)	Maximum distance apart of protective plates on each side of that part of a circular saw below the bench table	six inches	150 millimetres
	Minimum distance beyond saw teeth below the bench table protective plates shall extend	two inches	50 millimetres
	Minimum thickness of unbeaded metal plates	14 gauge	2 millimetres
	Minimum thickness of beaded metal plates	20 gauge	1 millimetre
Regulation (10)(*b*)(ii)	Minimum distance between front edge of the knife and teeth of the saw	half an inch	12 millimetres
Regulation (10)(*b*)(iii)	Diameter of saw	24 inches	600 millimetres
	Distance of knife from top of saw	one inch	25 millimetres
	Height of knife from bench table	nine inches	225 millimetres
Factories (Operations at Unfenced Machinery) Regulations (Northern Ireland) 1939(b)			
Regulation 10(i)	Width of moving pulley belt	6 inches	150 millimetres

(a) S.R. & O. (N.I.) 1922 No. 72 (p. 54), amended by S.R. & O. (N.I.) 1927 No. 64 (p. 90) and S.R. & O. (N.I.) 1946 No. 65 (p. 245)
(b) S.R. & O. (N.I.) 1939 No. 73 (p. 178)

1 *Provisions to be amended*	2 *Subject matter of measurement*	3 *Present measurement*	4 *Measurement to be substituted*
Factories (Cleanliness of Walls and Ceilings) Order (Northern Ireland) 1964(a)			
The Schedule			
Paragraph 8(*d*)	Height above which parts of rooms, passages and staircases are exempt	Twenty feet	6 metres

(a) S.R. & O. (N.I.) 1964 No. 16

EXPLANATORY NOTE

(This note is not part of the Regulations.)

1. Part I of, and the Schedule to, these Regulations implement, as respects Northern Ireland, the provisions of Council Directive 80/181/EEC on the approximation of the laws of the Member States relating to units of measurement (OJ No. L39, 15.2.80, p. 40) as amended by Council Directive 85/1/EEC (OJ No. L2, 3.1.85, p. 11) and Council Directive 89/617/EEC (OJ No. L357, 7.12.89, p. 28), in relation only to the instruments listed in the Schedule, by substituting measurements expressed in metric units for measurements contained in those instruments which are not so expressed.

The Instruments listed in the Schedule are the Flax and Tow Spinning and Weaving Regulations 1906, the Paints and Colours Regulations 1907, the Hemp Spinning and Weaving Regulations 1907, the Welfare of Workers in Oil Cake Mills Order 1919, the Woodworking Machinery Regulations 1922, the Factories (Operations at Unfenced Machinery) Regulations (Northern Ireland) 1939 and the Factories (Cleanliness of Walls and Ceilings) Order (Northern Ireland) 1964.

2. The substituted measurements preserve the effect of the original provisions except to the extent necessary to obtain amounts expressed in suitable and convenient terms. Regulation 4 provides that the amendments do not relate to plant, buildings, or other permanent structures in existence or under construction immediately before the coming into operation of these Regulations if that plant or those buildings or other permanent structures complied with the then existing Regulations.

3. By regulation 5, the Modification of Space in Bakehouses Order 1903, articles 7 and 8 of the Welfare of Workers in Oil Cake Mills Order 1919 and the definition of "Gauge" in the Woodworking Machinery Regulations 1922 are revoked.

4. Part II of these Regulations amends legislation relating to humid factories used for the manufacture of cotton and similar goods. The effect of the amendments are to permit humidity measurements to be made using accurate hygrometers rather than just wet and dry bulb hygrometers which are calibrated on the Fahrenheit (non-metric) temperature scale.

5. The legislation amended is:

(*a*) section 67 of the Factories Act (Northern Ireland) 1965;

(*b*) the Flax and Tow Spinning Regulations 1906; and

(*c*) the Hemp Spinning and Weaving Regulations 1907.

6. Details of the method approved by the Department of Economic Development for the calculation of wet bulb temperature by reference to dry bulb temperature and relative humidity may be obtained from the Department of Economic Development, Health and Safety Division, 83 Ladas Drive, Belfast, BT6 9FJ.