

Sealed with the Official Seal of the Ministry of Labour and National Insurance for Northern Ireland this 1st day of May, nineteen hundred and sixty-three.

(L.S.)

W. Slinger,
Assistant Secretary.

EXPLANATORY NOTE

(This Note is not part of the Regulations, but is intended to indicate their general purport.)

These Regulations impose requirements for the safety and health of persons employed in diving operations in any place to which the Factories Act (Northern Ireland), 1938, applies.

1963. No. 85

[C]

FACTORIES

Work in Compressed Air

SPECIAL REGULATIONS, DATED 1ST MAY, 1963, MADE BY THE MINISTRY OF LABOUR AND NATIONAL INSURANCE UNDER THE FACTORIES ACTS (NORTHERN IRELAND), 1938 TO 1959.

The Ministry of Labour and National Insurance for Northern Ireland in exercise of the powers conferred by Section 65 of the Factories Act (Northern Ireland), 1938(a), Section 8 of the Factories Act (Northern Ireland), 1949(b), Section 28 of the Factories Act (Northern Ireland), 1959(c), and of all other powers in that behalf, hereby makes the following Special Regulations:—

Citation and Commencement

1. These Regulations may be cited as the Work in Compressed Air Special Regulations (Northern Ireland), 1963, and shall come into operation on the 2nd day of September, 1963.

Application of Regulations

2.—(1) These Regulations shall apply as respects work in compressed air carried out therein—

(a) to all factories; and

(b) to all premises, places, processes, operations and works to which the provisions of Part IV of the principal Act with respect to special regulations for safety and health are applied by sections 107 to 112 of that Act.

(2) These Regulations shall not apply to work in a gasholder where the pressure does not exceed two pounds per square inch.

(a) 2 Geo. 6. c. 23 (N.I.).

(b) 1949. c. 6.

(c) 1959. c. 16.

(3) If the Chief Inspector is satisfied that in the case of any particular class or description of plant, equipment or appliance or of any special description or method of work any requirement of these Regulations relating to safety or health is, in any class or description of circumstances, not necessary for the protection of the persons employed or not reasonably practicable, he may by certificate in writing (which he may at his discretion revoke at any time) grant an exemption from that requirement in the case of that class or description of plant, equipment or appliance or of that special description or method of work in such circumstances and subject to such conditions as may be specified in the certificate.

Interpretation

3. In these Regulations unless the context otherwise requires the following expressions have the meanings hereby assigned to them respectively, that is to say:—

“Appointed Doctor” means any Appointed Factory Doctor appointed under section 132 of the principal Act for a district or any duly appointed medical practitioner approved for all or any of the purposes of these Regulations;

“approved” means approved for the time being by certificate of the Chief Inspector of Factories;

“man-lock” means any air lock or decompression chamber used for the compression or decompression of persons, but does not include an air lock which is only so used in emergency or a medical lock used solely for treatment purposes;

“pressure” means pressure in pounds per square inch above atmospheric pressure;

“the principal Act” means the Factories Act (Northern Ireland), 1938, as amended by or under any other Act.

Obligations under Regulations

4.—(1) It shall be the duty of every contractor and employer of workmen who is undertaking any work to which these Regulations apply to comply with such of the requirements of Regulations 5 to 21 as affect any workman employed by him; provided that the requirements of the Regulations shall be deemed not to affect any workman if and so long as his presence in any place is not in the course of performing any work on behalf of his employer or is not expressly or impliedly authorised or permitted by his employer.

(2) It shall be the duty of every person employed to comply with the requirements of such Regulations as relate to the doing of or abstaining from an act by him and to co-operate in carrying out these Regulations and if he discovers any defect in the plant, equipment or appliances to report such defect without unreasonable delay to his employer or foreman, or to a person appointed by the employer to supervise the safe conduct of the work.

(3) No person shall be held not to have complied with a requirement of any of these Regulations by reason of any matter proved to have been due to causes over which he had no control and against the happening of which it was not reasonably practicable for him to make provision, including (without prejudice to the generality of the foregoing) physical conditions which were unknown and which could not have been reasonably foreseen by a person experienced in the work or in the use of any material, appliance or equipment involved.

Supervision of compressed air operations

5. Where persons are employed in compressed air, their employer shall make arrangements to ensure that, at all times when they are actually so employed, a person competent to take charge of compressed air operations is in charge of the operations and in attendance on the site.

Construction and maintenance of bulkheads, air locks, etc.

6. Every bulkhead, air lock or other structure used in connection with work in compressed air shall be of good construction, sound material and adequate strength and shall be properly maintained.

Air supply plant

7. The plant for the production and supply of compressed air to any working chamber or air lock shall be of suitable design, and in the case of a working chamber shall deliver a supply sufficient to provide at the pressure in the chamber ten cubic feet of fresh air per minute per person for the time being in the chamber. The plant shall be in the immediate charge of a competent person who shall be in attendance whilst any person is in compressed air.

Size and equipment of man-locks

8.—(1) Every man-lock shall be of adequate internal dimensions and capacity for the purposes for which it is used and shall be suitably equipped.

(2) Without prejudice to the generality of the preceding paragraph, there shall be provided in connection with every man-lock—

- (a) pressure gauges which will readily indicate (i) to the man-lock attendant the pressure in the man-lock and the pressure in each working chamber to which the man-lock affords direct or indirect access, and (ii) to persons in the man-lock the pressure in the man-lock;
- (b) a clock or clocks in a suitable position or suitable positions so that the man-lock attendant and persons in the man-lock can readily ascertain the time;
- (c) efficient means of verbal communication between the lock attendant, the lock and the working chamber or chambers, and means enabling the person in the lock to convey visible or other non-verbal signals to the lock attendant outside; and
- (d) efficient means enabling the lock attendant, from outside the lock, to reduce or cut off the supply of compressed air into the lock.

(3) Valves or taps for controlling the flow of air into or from the lock shall be such as to enable the flow to be controlled with sufficient accuracy to ensure compliance with paragraph (3) of Regulation 10.

(4) The arrangements shall be such that persons in the lock cannot reduce the air pressure except under the control of the lock attendant otherwise than by special means which shall be operated only in emergency and which shall normally be kept so sealed or protected as to disclose their use:

Provided that this paragraph need not be complied with when no person in the lock has been exposed to a pressure exceeding eighteen pounds per square inch.

(5) An approved notice which can be easily read, indicating precautions which should be taken by persons during their compression or decompression and after decompression, shall be affixed in each man-lock.

Use of man-locks

9.—(1) Subject to paragraphs (2) and (3), a man-lock shall be used solely for the compression or decompression of persons and not for the passage of plant or material and shall be maintained in a reasonably clean and sufficiently warm state; so, however, that nothing in this paragraph shall prevent any person carrying with him into the man-lock any hand-tools or hand-instruments used for the purpose of the work.

(2) Paragraph (1) shall not apply where it is not reasonably practicable to provide a separate man-lock for persons only, but in any such case not excepted by paragraph (3) a lock when in actual use for the compression or decompression of a person or persons shall not be put, simultaneously, to any other use and shall be in a reasonably clean and sufficiently warm state.

(3) Nothing in the two preceding paragraphs shall apply to a lock which does not afford direct or indirect access to a working chamber in which the pressure exceeds eighteen pounds per square inch; and in so far as a lock affords only indirect access to such a working chamber those paragraphs shall apply only whilst persons who have worked in the chamber are in the lock.

Lock attendants, and Rules as to compression or decompression

10.—(1) Every man-lock shall, whilst any person is in that man-lock or in a working chamber to which the man-lock affords direct or indirect access, be in charge of a competent lock attendant who shall control the maximum rate of compressions and shall perform all decompressions in the man-lock. Where persons are employed in compressed air at pressures exceeding eighteen pounds per square inch the lock attendant shall enter in a register kept in such form as may be prescribed—

- (a) the times at which each person enters and leaves the man-lock;
- (b) the pressures at the times of his entering and leaving the working chamber;
- (c) the times taken to decompress each person and such other particulars as may be prescribed as to conditions in the man-lock or working chamber.

(2) Subject to the overall control by the lock attendant of the admission of compressed air into the lock he may, on behalf of and if so authorised by his employer, allocate to a competent person who is to be compressed in the lock a duty of regulating, from inside the lock, in accordance with the Rules for the compression of persons, the admission of compressed air, and a duty to signify to the lock attendant (unless the lock attendant is clearly aware of it) any complaint of discomfort by a person in the lock and any report by that person that the discomfort has ceased.

(3) Compression of a person in a man-lock shall not be carried out otherwise than in accordance with the Rules set forth in Part I of the Schedule; and decompression of a person in a man-lock after being in a working chamber shall not be carried out otherwise than in accordance with the Rules set forth in Part II of the Schedule: Provided:—

- (i) that compression or decompression, as the case may be, may be carried out in accordance with such alternative Rules (if any) as are approved for the purposes of this Regulation, either generally or in such circumstances and subject to such conditions as may be specified in the certificate of approval; and

(ii) that this paragraph shall not apply as respects the emergency re-compression and subsequent decompression of a person on health grounds.

(4) Save in an unforeseen emergency, no person shall be compressed to a pressure exceeding fifty pounds per square inch unless Rules for the decompression of persons from such a pressure have been approved under the foregoing paragraph.

(5) Where a person who has within the immediately preceding period of five hours been exposed to a pressure greater than eighteen pounds per square inch is to be compressed in a man-lock other than the lock in which he was last decompressed, he shall, before compression, produce to the lock-attendant written particulars, signed by the lock-attendant of the lock where he was last decompressed, indicating his last working period as defined in Part II of the Schedule. The said particulars shall as soon as practicable be entered in the prescribed register for the lock where he is compressed, and shall as soon as practicable be communicated to the attendant at any other lock from which the person is liable to return to the open air.

Egress from working chamber

11. Whilst any person is in a working chamber the door between such chamber and any man-lock providing for his egress towards a lower pressure and not in use shall be kept open except when this is not reasonably practicable.

Temperature in working chamber

12.—(1) No person shall be employed or allowed to remain in any part of a working chamber under pressure where the wet bulb temperature exceeds eighty degrees Fahrenheit, except where and when his presence is essential for work which has to be done and all reasonably practicable steps have been and are being taken towards securing that the wet bulb temperature does not exceed that figure.

(2) A wet bulb thermometer, in good working order, shall be provided in every working chamber.

Employment of persons without previous experience

13. No person shall be employed on work in compressed air unless he has had previous experience of such work or, if he has not had such experience, is under the supervision of a person experienced in such work; and in the case of a person not previously employed in compressed air, compressions shall not be carried out unless he is accompanied in the man-lock by a person competent to advise him as to the appropriate conduct of persons during compression.

Medical supervision and certification

14.—(1) Where persons are employed in compressed air, their employer shall make arrangements for their medical supervision by an Appointed Doctor and for their medical examination at a suitable place or places in accordance with these Regulations.

(2) Subject to the provisions of paragraph (7), no person shall be employed in compressed air unless he has been examined by an Appointed Doctor and certified by him, by signed entry in that person's Compressed Air Health Register as provided in Regulation 15, to be fit for such employment and either—

(a) the date of such certificate is not more than three days earlier; or

(b) the person has been so employed within the previous three months having been certified in accordance with the requirements of these Regulations to be fit for such employment and has not to the knowledge of the employer suffered since the date of that certificate from any injury, disease or illness causing an incapacity for work of more than three days' duration.

(3) Without prejudice to any other requirement of these Regulations restricting employment in compressed air, no person shall be employed where the pressure exceeds eighteen pounds per square inch unless he has within the previous four weeks been examined and certified as aforesaid to be fit for employment in compressed air.

(4) Without prejudice to any other requirement of these Regulations a certificate by an Appointed Doctor that a person is fit for employment in compressed air may be issued subject to conditions as to the maximum pressure in which that person may be employed and as to the re-examination of that person after an interval specified in the certificate; and until that certificate is varied or revoked as provided for in these Regulations that person shall not be employed in compressed air otherwise than in accordance with a condition so imposed in the certificate, but account need not be taken for this purpose of variations of pressure which are of a sudden and exceptional character and which do not involve excess over the maximum for more than a very short time.

(5) If, when it is proposed to employ a person in compressed air, that person is suffering from a cold in the head, a sore throat, ear-ache or any other ailment which he has reason to believe is likely to render him unfit for such employment, he shall forthwith report the matter to his employer or to the person placed in charge of the operations for the purposes of Regulation 5 or to the Appointed Doctor, and thereupon (subject to the provisions of paragraph 7) he shall not be employed in compressed air until he has, since so reporting, been examined by an Appointed Doctor and certified by him, by signed entry in that person's Compressed Air Health Register, to be fit for such employment.

(6) An Appointed Doctor may, on examining or re-examining a person who has been or is proposed to be employed in compressed air, vary or revoke, by signed entry in that person's Compressed Air Health Register, any current certificate as to his fitness for employment in compressed air, and if such certificate is revoked that person shall not thereafter be employed in compressed air until he has, since such revocation, been certified by an Appointed Doctor, by signed entry in his said Health Register, to be fit for such employment.

(7) Where work in compressed air is urgently required to be done before it is reasonably practicable, because of the inaccessibility of an Appointed Doctor, to arrange for any examination or obtain any certificate required by the foregoing provisions of this Regulation, any examination so required of a person proposed to be employed on such work and any certificate so required in relation to any such person may be made or given by any duly qualified medical practitioner who in that behalf shall have all the powers of an Appointed Doctor. The employer shall notify the Chief Inspector of Factories as soon as practicable whenever any work in compressed air is carried out in reliance on the provisions of this paragraph.

Compressed Air Registers

15. Every person employed in compressed air shall have a Compressed Air Health Register, in the prescribed form, in which his employer shall enter the name and address and telephone number (if any) of the Appointed Doctor with whom for the time being the employer has made arrangements for his medical supervision under Regulation 14(1) and in which Appointed Doctors shall enter particulars as to the certificates issued by them for the purposes of these Regulations. The said Health Register shall be kept by the employer or his representative whilst the person is in his employment, except at times when it is required by that person or by the Appointed Doctor for purposes of these Regulations and shall be handed to the person on the termination of such employment. When an employer proposes to employ a person in compressed air and is not already in possession of a current Health Register for that person, that person shall produce his Health Register (if any) to the employer, and if the person is unable or fails to produce such Register the employer shall supply a fresh form of register and shall not employ the person in compressed air until a certificate of fitness for such employment is entered therein in accordance with these Regulations. The employer shall also supply a fresh form of Register when an existing Register has become full and a further entry is required.

Advisory Leaflets

16. When an employer commences to employ any person in compressed air for the first time in that employer's employment, he shall supply that person with the prescribed leaflet containing advice as to precautions to be taken in connection with such work.

Health Facilities

17. There shall be provided and maintained for the use of persons employed in compressed air—

- (a) adequate and suitable accommodation for clothing, with adequate and suitable facilities for changing;
- (b) adequate and suitable facilities for washing, including soap and clean towels; and
- (c) adequate and suitable facilities for remaining on the site after decompression.

The facilities to be provided for the purposes of paragraph (c) shall include facilities for sitting in shelter when not required to work, and shall be available for at least one-and-a-half hours after decompression in the case of persons who, in the course of the preceding working period, were under pressures exceeding forty pounds per square inch and for at least one hour after decompression in other cases:

Provided that the requirements in paragraph (c) shall apply only in the case of persons employed under a pressure exceeding eighteen pounds per square inch.

Medical Lock

18.—(1) Where the pressure in a working chamber exceeds, otherwise than on an exceptional occasion, eighteen pounds per square inch, a suitably constructed medical lock shall be provided and maintained and used solely for the treatment of persons working in compressed air. It shall be situated so as to be convenient for such treatment.

(2) The medical lock shall have not less than six feet clear headroom at its highest point, shall have two compartments so that the lock can be entered while under pressure, and shall be adequately ventilated, heated and lighted. The lock and its equipment shall be kept in a clean state.

The lock shall be provided with suitable equipment including a couch not less than six feet in length, blankets, dry woollen garments, a food lock, efficient means of verbal communication and of giving non-verbal signals between the inside and outside of the lock and between the two compartments, and a window or windows through which persons in either compartment can be observed from outside.

(3) The medical lock shall at all times be kept ready for immediate use and, whilst any person is actually employed in compressed air, shall be constantly in charge of a person trained in the use of a medical lock and in first aid, and suitably instructed as to the steps to be taken in the event of any person suffering from ill-effects of compressed air.

Supply of Labels

19. Where any person is employed in compressed air at a pressure exceeding eighteen pounds per square inch, his employer shall supply him with a suitable and durable label, to be worn next the body; for the guidance of others should the person be taken ill after leaving work, indicating that the person has been employed in compressed air, and giving up-to-date information as to the whereabouts of the medical lock provided near his place of employment.

Notification to Hospitals

20. Where persons are employed in compressed air at pressures exceeding eighteen pounds per square inch, their employer shall see that a convenient and suitable public hospital is acquainted with the fact that such work is being undertaken and with the whereabouts of the site and with the name, address and telephone number (if any) of the Appointed Doctor with whom arrangements have been made under Regulation 14(1); and the hospital shall be notified when the compressed air operations on the site are completed.

Supply of Hot Drinks

21. Where persons are employed in compressed air at pressures exceeding eighteen pounds per square inch suitable arrangements shall be made for the supply of hot drinks to such persons when leaving the man-lock and when at any medical lock.

Duty to submit to medical examination

22. It shall be the duty of every person employed or proposed to be employed in compressed air to submit himself for medical examination in accordance with these Regulations at the appointed times.

Consumption of alcohol

23. No person employed shall consume alcohol whilst in compressed air.

Sealed with the Official Seal of the Ministry of Labour and National Insurance for Northern Ireland this 1st day of May, nineteen hundred and sixty-three.

(L.S.)

W. Slinger,
Assistant Secretary.

SCHEDULE

**Rules as to Compression and Decompression of Persons
under Regulation 10(3)**

PART I. RULES AS TO COMPRESSION

1. The pressure shall not, in the first minute after starting compression, be increased to more than five pounds per square inch.
2. When that pressure is reached, the pressure shall not be further increased until after the lapse of a period sufficiently long to enable the lock attendant to discover whether or not any person in the man-lock complains of discomfort.
3. After the lapse of that period, the pressure shall not be increased at a rate faster than ten pounds per square inch per minute.
4. Subject to the foregoing Rules, the pressure shall be increased gradually so as to ensure as far as practicable that no person suffers discomfort.
5. If any person complains of discomfort and such complaint is signified to the lock attendant or to a person to whom duties have been allocated under paragraph (2) of Regulation 10, any compression then proceeding shall be immediately stopped, and unless the person who complained of discomfort quickly reports that the discomfort has ceased and such report is conveyed to the lock attendant the lock attendant shall, without further delay, gradually reduce the pressure in the lock until the person reports that the discomfort has ceased; and if he does not so report the pressure shall be reduced gradually to atmospheric pressure and the person released from the lock.

PART II. RULES AS TO DECOMPRESSION

A. General

6. For the purposes of this Part of these Rules:

“working period” means when used in relation to a person the period or the sum of the periods during which, since last subject to ordinary atmospheric pressure for at least five consecutive hours, the person has been under pressure in a working chamber or chambers and for this purpose the expressions “working chamber” includes any place other than a lock in which the person is for the purpose of compression or decompression.

“basic pressure”, that is to say, the pressure on which, subject to Rule 9, the procedure for the decompression of a person is to be based, means the highest pressure to which the person has been exposed in the course of his working period:

Provided that—

- (a) sudden and exceptional variations of pressure not involving excess pressure for more than a very short time may be disregarded;
- (b) where during the whole of his working period a person about to be decompressed has been in a working chamber in which (as in tidal waters) the pressure has gradually varied by more than five pounds per square inch in the course of that period, the basic pressure shall be the mean of the pressures halfway through that period and at the end of it;
- (c) where the conditions specified in Rule 10 (as to phase decompression) are fulfilled, the basic pressure may be taken to be a figure ascertained in accordance with Rule 11.

7.—(1) These Rules shall not apply to the decompression of a person who has not, in the course of his working period as defined in Rule 6, been exposed to a pressure exceeding eighteen pounds per square inch.

(2) If, in an unforeseen emergency, a person has been exposed to a pressure exceeding fifty pounds per square inch, these Rules shall, as nearly as may be practicable, be applied as if the Decompression Table referred to in Rule 8 had been extended by the addition of figures calculated in accordance with the same principles.

B. Normal Procedure

8. Save as provided for in Rules 12 to 14 (as to decanting), the procedure specified in this Rule shall, subject to Rule 9 and (where they apply) Rules 10 and 11 (as to phase decompression), be followed in the decompression of persons:—

- (1) ascertain, in the case of each person to be decompressed, his "basic pressure" and his "working period";
- (2) reduce the pressure fairly quickly at first, but do not, within the first two minutes after starting decompression, reduce it to less than the figure given in section 2 of the Decompression Table (contained in Table I annexed to this Schedule) next to the pressure range in section 1 of that Table within which the person's basic pressure falls;
- (3) after that figure is reached, but not before the end of the first two minutes, the pressure may be reduced further but reduced at a rate not faster than the rate (or approximately the rate) given in column R and reduced to atmospheric pressure in a time not less than that given in column T in section 3 of the said Table in the same line as the figure and pressure range in sections 1 and 2 and underneath the working period.

9. Where two or more persons are being decompressed in a man-lock at the same time then:—

- (1) if their basic pressures all fall within the same range in section 1 of the Decompression Table (contained in Table I annexed to this Schedule), but their working periods do not fall within the same range in section 3 of that Table, the procedure to be applied shall be that for the longest of their working periods;
- (2) if their basic pressures do not all fall within the same range, the lowest permissible pressure within the first two minutes shall be that for the person or persons with the highest basic pressure, and after that lowest permissible pressure is reached but not before the end of the first two minutes the pressure shall be reduced, as uniformly as may be, at a rate not faster than the rate which reduces the pressure to zero in a time equivalent to the longest of the respective times which would be required according to column T of the said Table for the respective persons in the lock if each of them were being separately decompressed.

C. Phase Decompression

10. If—

- (1) a person employed in a working chamber under pressure passes through an intermediate man-lock, where he is partly decompressed, into a chamber intermediate between the first-mentioned chamber and the man-lock in which he is further decompressed to atmospheric pressure, and
- (2) the pressure in the intermediate chamber when he enters it is not less than the lowest pressure to which he could, in accordance with these Rules, be decompressed in the intermediate man-lock within the first two minutes, and
- (3) he remains in the intermediate chamber for a period (referred to in these Rules as "the intermediate period") of more than half-an-hour before entering a man-lock for further decompression;

then for the purposes of decompression in that man-lock in accordance with these Rules the basic pressure for that person may be taken to be a figure ascertained in accordance with the next following Rule.

11.—(1) Ascertain in the case of the person to be decompressed (*a*) his intermediate period and (*b*) his working period up to the commencement of his intermediate period.

(2) Ascertain from Table II annexed to this Schedule the zone (signified by a capital letter) corresponding to those two periods.

(3) Ascertain the difference (referred to in these Rules as “the pressure difference”) between the highest pressure to which the person has been exposed in the first working chamber and the pressure in the intermediate chamber when he entered that chamber.

(4) Ascertain from Table III annexed to this Schedule the allowable deduction corresponding to the zone and pressure difference.

(5) Deduct the allowable deduction from the highest pressure to which the person has been exposed in the course of his working period. The resultant figure may be taken to be the basic pressure.

D. Decanting

12. In these Rules “decanting” means rapid decompression of persons in a man-lock to atmospheric pressure, followed promptly by their rapid re-compression in a separate decompression chamber and subsequent more gradual decompression to atmospheric pressure.

13. Instead of compliance with the foregoing Rules in this Part of this Schedule as to decompression, the procedure of decanting may, subject to compliance with the conditions specified in Rule 14 hereof, be resorted to where and when—

- (1) it is not reasonably practicable to provide, opening directly to air at atmospheric pressure, and as a means of egress to the open air from a place or places where persons are employed in compressed air, either
 - (*a*) a separate man-lock used solely for the compression or decompression of persons and not for the passage of plant or material, or
 - (*b*) a man-lock other than a man-lock of the vertical type; and
- (2) compliance with the foregoing Rules in this Part of this Schedule as to rates of decompression would, in view of the numbers of workmen concerned in conjunction with the long delay which would be involved in affording them egress from the working chamber or chambers, seriously interfere with the carrying on of the work or be likely to be detrimental to their safety or health and
- (3) it is not reasonably practicable to avoid decanting by means of one or more transfer locks in which the workmen are transferred, at the same pressure as that in the working chamber, from a lock opening out of the working chamber to a separate decompression chamber in which the foregoing Rules in this Part of this Schedule as to decompression are complied with.

14. The following provisions shall apply in connection with decanting, namely—

- (1) a separate decompression chamber or chambers shall be provided and suitably situated in sufficient numbers, to the extent of not less than one

for each working chamber. Such decompression chambers shall be deemed to be man-locks for the purposes of the Regulations and of these Rules. The medical lock shall not be used for decanting;

- (2) the Doctor appointed under paragraph (1) or paragraph (7) of Regulation 14 shall have been specifically informed by the employer that decanting is to be carried out at the site in question;
- (3) re-compression in the decompression chamber shall be to a pressure equivalent as nearly as practicable to the pressure in the working chamber from which the persons in the decompression chamber entered the man-lock in which they were decompressed. Part I of these Rules (which relates to the compression of persons) shall not apply to such re-compression. Rules 6 to 11 of this Part of these Rules shall apply to their subsequent decompression in the decompression chamber as if it were decompression in the said man-lock;
- (4) the total time spent on (a) the primary decompression in the man-lock, (b) going from that man-lock to the decompression chamber, and (c) re-compression in that chamber shall, except when this is not reasonably practicable, not exceed five minutes.

TABLE I
DECOMPRESSION TABLE (RULE 8)

Section 1	Section 2	Section 3																		
"Basic pressure" more than (a) to not more than (b) lbs. per square inch (a) (b)	Lowest permissible pressure in first two mins. after starting decompression (lbs. per square inch)	Fastest permissible reduction of pressure from figure in Section 2 to zero. Shortest permissible times (T) in minutes, and fastest permissible rates (R) in minutes per lb. for the working periods in the different columns.																		
		"Working period": More than (c) but not more than (d) hours																		
		More than 4 hours		(c) (d) 3½-4		(c) (d) 3-3½		(c) (d) 2½-3		(c) (d) 2-2½		(c) (d) 1½-2		(c) (d) 1-1½		(c) (d) ½-1		(c) (d) 0-½		
T Mins.	R Mins. per lb.	T Mins.	R Mins. per lb.	T Mins.	R Mins. per lb.	T Mins.	R Mins. per lb.	T Mins.	R Mins. per lb.	T Mins.	R Mins. per lb.	T Mins.	R Mins. per lb.	T Mins.	R Mins. per lb.	T Mins.	R Mins. per lb.	T Mins.	R Mins. per lb.	
18-20	2	13	6½	6	3	5	2½	4	2	4	2	3	1½	2	1	2	1	1	1	½
20-22	3	24	8	14	4½	11	3½	10	3½	9	3	7	2½	6	2	4	1	2	1	½
22-24	4	35	9	22	5½	18	4½	16	4	14	3½	11	3	9	2	6	1½	3	1	1
24-26	5	46	9	32	6½	28	5½	23	4½	19	4	16	3	12	2	8	1½	4	1	1
26-28	6	56	9½	42	7	38	6½	31	5	25	4	22	3½	15	2½	11	2	5	1	1
28-30	7	65	9½	52	7½	48	7	40	5½	32	4½	27	4	20	3	14	2	7	1	1
30-32	8	74	9½	61	7½	57	7	50	6½	40	5	32	4	25	3	16	2	8	1	1
32-34	9	83	9	70	8	65	7	59	6½	49	5½	37	4	29	3	18	2	10	1	1
34-36	10	91	9	78	8	74	7½	68	7	58	6	43	4½	34	3½	21	2	11	1	1
36-38	11	98	9	87	8	82	7½	76	7	67	6	53	5	39	3½	26	2½	13	1	1
38-40	12	105	9	95	8	90	7½	84	7	75	6	62	5	44	3½	31	2½	16	1	1½
40-42	13	113	9	102	8	98	7½	92	7	83	6½	70	5½	49	4	35	2½	18	1	1½
42-44	14	120	8½	109	8	105	7½	99	7	91	6½	77	5½	55	4	39	3	20	1	1½
44-46	15	127	8½	116	8	112	7½	107	7	99	6½	85	5½	63	4	44	3	22	1	1½
46-48	16	133	8½	123	8	120	7½	115	7	106	6½	93	6	72	4½	48	3	24	1	1½
48-50	17	139	8	130	8	126	7½	122	7	114	6½	101	6	80	4½	52	3	26	1	1½

PHASE DECOMPRESSION (RULE 11)

Tables for ascertaining allowable deductions from highest pressure to which the person to be decompressed was exposed

TABLE II
TABLE FOR ASCERTAINING ZONES

1 <i>Intermediate Period (Rule 10 (3))</i>		2 <i>Zones</i>								
		<i>Working Period up to Intermediate Period (Rules 6 and 10 (3))</i>								
<i>More than (hours)</i>	<i>Not more than (hours)</i>	<i>Not more than $\frac{1}{2}$ hour</i>	<i>More than $\frac{1}{2}$ but not more than 1 hour</i>	<i>More than 1 but not more than $1\frac{1}{2}$ hours</i>	<i>More than $1\frac{1}{2}$ but not more than 2 hours</i>	<i>More than 2 but not more than $2\frac{1}{2}$ hours</i>	<i>More than $2\frac{1}{2}$ but not more than 3 hours</i>	<i>More than 3 but not more than $3\frac{1}{2}$ hours</i>	<i>More than $3\frac{1}{2}$ but not more than 4 hours</i>	<i>More than 4 hours</i>
$\frac{1}{2}$	1	N	R	S	T	T	U	U	V	V
1	$1\frac{1}{2}$	H	L	N	O	P	P	Q	Q	R
$1\frac{1}{2}$	2	E	H	J	K	L	M	M	M	N
2	$2\frac{1}{2}$	C	E	G	H	I	I	J	J	K
$2\frac{1}{2}$	3	B	D	E	F	F	G	G	G	H
3	$3\frac{1}{2}$	A	C	C	D	E	E	E	E	F
$3\frac{1}{2}$	4	A	B	B	C	C	D	D	D	D
4	—	A	A	B	B	B	C	C	C	C

TABLE III
TABLE FOR ASCERTAINING DEDUCTIONS

1 Pressure Difference		2 Allowable Deductions																					
More than	Not more than	Zone A	Zone B	Zone C	Zone D	Zone E	Zone F	Zone G	Zone H	Zone I	Zone J	Zone K	Zone L	Zone M	Zone N	Zone O	Zone P	Zone Q	Zone R	Zone S	Zone T	Zone U	Zone V
lbs./sq. in.	lbs./sq. in.	lbs./sq. in.	lbs./sq. in.	lbs./sq. in.	lbs./sq. in.	lbs./sq. in.	lbs./sq. in.	lbs./sq. in.	lbs./sq. in.	lbs./sq. in.	lbs./sq. in.	lbs./sq. in.	lbs./sq. in.	lbs./sq. in.	lbs./sq. in.	lbs./sq. in.	lbs./sq. in.	lbs./sq. in.	lbs./sq. in.	lbs./sq. in.	lbs./sq. in.	lbs./sq. in.	lbs./sq. in.
2	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0
4	6	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
6	8	5	5	5	5	4	4	4	4	4	4	3	3	3	3	3	2	2	2	2	1	1	1
8	10	7	7	7	6	6	6	6	5	5	5	5	4	4	4	4	3	3	3	2	2	2	1
10	12	9	9	8	8	8	7	7	7	7	6	6	6	5	5	5	4	4	4	3	2	2	1
12	14	11	10	10	10	9	9	9	9	8	8	7	7	6	6	6	5	5	4	4	3	3	2
14	16	13	12	12	11	11	11	10	10	9	9	9	8	8	7	7	6	6	5	4	4	3	3
16	18	15	14	14	13	13	12	12	11	11	10	10	9	9	8	8	7	7	6	5	4	4	3
18	20	16	16	15	15	14	14	13	13	12	12	11	11	10	10	9	8	8	7	6	5	4	4
20	22	18	18	17	17	16	15	15	14	14	13	12	12	11	11	10	9	8	8	7	5	5	4
22	24	20	20	19	18	18	17	16	16	15	14	14	13	12	12	11	10	9	9	7	6	5	5
24	26	22	21	21	20	19	19	18	17	16	16	15	14	14	13	12	11	10	9	8	7	6	5
26	28	24	23	22	22	21	20	19	19	18	17	16	16	15	14	13	12	11	10	9	7	6	6
28	30	26	25	24	23	23	22	21	20	19	18	18	17	16	15	14	13	12	11	9	8	7	6
30	32	28	27	26	25	24	23	22	22	21	20	19	18	17	16	15	14	13	12	10	8	7	7
32	34	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	11	9	8	7

Factories

EXPLANATORY NOTE

(This Note is not part of the Regulations, but is intended to indicate their general purport.)

These Regulations impose requirements for the health, safety and welfare of persons employed in compressed air carried out in any factory and in any other premises or place to which the Factories Act (Northern Ireland), 1938, applies.

1963. No. 86

[C]

FACTORIES

Construction (Lifting Operations)

REGULATIONS, DATED 1ST MAY, 1963, MADE BY THE MINISTRY OF LABOUR AND NATIONAL INSURANCE UNDER THE FACTORIES ACTS (NORTHERN IRELAND), 1938 TO 1959.

ARRANGEMENT OF REGULATIONS

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SCHEDULES

First Schedule — Extent of exclusions under Regulation 6.

Second Schedule — Chains and lifting gear excepted under Regulation 41 (as to heat treatment).

The Ministry of Labour and National Insurance for Northern Ireland in exercise of powers conferred by Sections 47 and 65 of the Factories Act (Northern Ireland), 1938(a), Section 8 of the Factories Act (Northern Ireland), 1949(b), Section 28 of the Factories Act (Northern Ireland), 1959(c), and of all other powers in that behalf, hereby makes the following special Regulations.

(a) 2 Geo. 6. c. 23 (N.I.).

(b) 1949. c. 6.

(c) 1959. c. 16.