1962. No. 123

As this Order has been classified as local it is not printed at length in this volume. A summary is given in the List of Statutory Rules and Orders of a Local Character under the heading URBAN DRAINAGE.

1962. No. 124 [C]

FACTORIES

Ionising Radiations (Sealed Sources)

REGULATIONS, DATED 5TH JULY, 1962, 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 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:—

PART I

INTERPRETATION AND GENERAL

Citation and commencement

1. These Regulations may be cited as the Ionising Radiations (Sealed Sources) Regulations (Northern Ireland), 1962. Regulations 1 to 6 shall come into operation at the expiration of fourteen days, and the remainder of these Regulations at the expiration of six months, from the making of these Regulations.

Interpretation

2. For the purposes of these Regulations, unless the context otherwise requires, the following expressions have the meanings hereby assigned to them respectively, that is to say—

"adequate shielding" in relation to any source of ionising radiations means having provided and properly maintained around that source of ionising radiations shielding or a demarcating barrier being shielding or a barrier outside which the radiation dose rate averaged over any one minute does not exceed 0·75 millirads in air per hour or where only classified workers are affected 2·5 millirads in air per hour, and cognate expressions shall be construed accordingly;

"appointed doctor" as respects any factory means—

(*a*) any fully registered medical practitioner who is approved and is

(a) 2 Geo. 6. c. 23 (N.I.).
(b) 1949. c. 6.
(c) 1959. c. 16.

acting within the terms of his approval or (where there is no such practitioner) the appointed factory doctor for the district; or

(*b*) if the prospective employer so requests in the case of an examination in pursuance of Regulation 25(1), the appointed factory doctor for the district in which the person undergoing the examination resides;

"approved" means approved for the time being for the purposes of these Regulations by certificate of the chief inspector;

"authorised person" in any of these Regulations means a person for the time being authorised in writing by the occupier for the purposes of that Regulation;

"calendar quarter" means the period of three calendar months beginning with the first day of January, the first day of April, the first day of July or the first day of October;

"classified worker" has the meaning assigned to it in paragraph (1) of Regulation 11;

"factory" includes any place to which these Regulations apply;

"health register" means the register referred to in Regulation 30;

"ionising radiations" means electromagnetic radiation (that is to say, X- or gamma ray photons or X- or gamma ray quanta) or corpuscular radiation (that is to say, alpha particles, beta particles, electrons, positrons, protons, neutrons or heavy particles) being electromagnetic radiation or corpuscular radiation capable of producing ions and emitted from a radioactive substance or from a machine or apparatus that is intended to produce ionising radiations, or from a machine or apparatus in which charged particles are accelerated by a voltage of not less than five kilovolts;

"the principal Act" means the Factories Act (Northern Ireland), 1938;

"protected employment" means employment as respects which requirements are for the time being imposed under the principal Act (including the requirements of these Regulations) for recording the radiation doses received by the persons employed;

"radiation dose record" means the record referred to in paragraph (1) of Regulation 24;

"radioactive substance" means any substance which consists of or contains any radioactive chemical element whether natural or artificial and whose specific activity exceeds 0·002 of a microcurie of parent radioactive chemical element per gramme of substance;

"sealed source" means any radioactive substance sealed in a container (otherwise than solely for the purpose of storage, transport or disposal) or bonded wholly within material and includes the immediate container or the bonding;

"transfer record" means a record prepared on the termination of any person's employment of radiation doses received by him being a record prepared in accordance with requirements for the time being imposed under the principal Act (including the requirements of these Regulations);

"useful beam" means, in the case of X-rays, that part of the radiation from an X-ray tube that passes through the aperture, cone or other device for collimating the X-ray beam; and, in other cases, any ionising radiations from a sealed source that can be employed for the purposes for which the sealed source is used.

Application of Regulations

3.—(1) Subject to paragraphs (4) and (5) of this Regulation, these Regulations shall apply to—

(*a*) all factories; and

(*b*) 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,

in which any sealed source is, or is proposed to be, stored, manipulated, maintained, operated, used or installed, or in which there is operated or used, or proposed to be operated or used, any machine or apparatus that is intended to produce ionising radiations or any machine or apparatus (being a machine or apparatus which emits ionising radiations) in which charged particles are accelerated by a voltage of not less than five kilovolts.

(2) Where in any factory the occupier is neither the owner nor the hirer of a sealed source or of such a machine or apparatus as is referred to in paragraph (1) of this Regulation being a sealed source, machine or apparatus which is used by or under the direction of some person other than the occupier or a person in the employment of the occupier, that other person or (if he is in the employment of the owner or hirer) the employer of that other person, shall in relation to that sealed source, machine or apparatus be deemed to be the occupier of the factory for the purposes of these Regulations.

(3) Where in any factory some person other than the occupier is the employer of any classified worker, that other person shall, in relation to that classified worker, be deemed to be the occupier of the factory for the purposes of Part III of these Regulations.

(4) Nothing in these Regulations shall apply with respect to any X-ray apparatus exclusively used in a room specially set apart for the purpose, for the prevention, diagnosis or treatment of illness or injury.

(5) Except as provided in paragraph (6) of this Regulation, nothing in these Regulations shall apply with respect to—

(*a*) any sealed source at or near the surface of which the dose rate of ionising radiations does not exceed ten millirads in air per hour not being one of a number of sealed sources placed together and whose collective dose rate at or near the surface exceeds ten millirads in air per hour; or

(*b*) any ionising radiations that do not arise from a sealed source or from such a machine or apparatus as is referred to in paragraph (1) of this Regulation; or

(*c*) any nuclear fuel element; or

(*d*) any plant or installation of the kind specified in paragraph (*a*) or paragraph (*b*) of sub-section (1) of section one of the Nuclear Installations (Licensing and Insurance) Act, 1959(a), being plant or installation containing any radioactive substance; or

(*e*) any apparatus used only for the purpose of receiving visual images sent by television when operated at a voltage of not more than twenty kilovolts.

(a) 7 & 8 Eliz. 2. c. 46.

In sub-paragraph (*a*) of this paragraph the expression "at or near the surface" means as near the surface as is practicable for the purpose of measuring the dose rate of ionising radiations.

(6) Notwithstanding the provisions of paragraph (5) of this Regulation, where in any factory to which these Regulations apply ionising radiations arise from all or any one or more of the sources referred to in that paragraph, such ionising radiations shall, to the extent to which they are ionising radiations to which the following provisions of these Regulations or either of them respectively relate, be taken into account for the purposes of the said provisions, namely—

(*a*) paragraph (3) of Regulation 26 (which relates to the ionising radiations recorded by the photographic films worn by classified workers); and

(*b*) paragraph 1 of the Schedule (which specifies the ionising radiations that have to be taken into account for the purpose of the maximum permissible radiation doses).

(7) The provisions of these Regulations shall be in addition to and not in substitution for or in diminution of other requirements imposed by or under the principal Act.

Exemption certificates

4. The chief inspector may (subject to such conditions as may be specified therein) by certificate in writing (which he may in his discretion revoke at any time) exempt from all or any of the requirements of these Regulations—

(*a*) any factory or part of any factory; or

(*b*) any class or description of factories or parts thereof; or

(*c*) any machine, plant, apparatus or process or any class or description of machines, plant, apparatus or processes; or

(*d*) the employment of any person or any class or description of persons;

if he is satisfied that the requirements in respect of which the exemption is granted are not necessary for the protection of persons employed. Where such exemption is granted a legible copy of the certificate, showing the conditions (if any) subject to which it has been granted, shall be kept posted in any factory to which the exemption applies in a position where it may be conveniently read by the persons employed.

Preservation of records

5. Every register, certificate or record kept in pursuance of these Regulations and every transfer record and copy transfer record received by an employer in pursuance of Regulation 31 shall be preserved in the factory or in such place outside the factory as may be approved and kept available for inspection by any inspector or by the appointed doctor for at least the following periods after the last entry therein, that is to say, thirty years in the cases of the health register, the radiation dose records, the transfer records and the copy transfer records, three years in the case of the register kept in pursuance of paragraph (5) of Regulation 15 and two years in all other cases.

PART II

PRECAUTIONS OF GENERAL APPLICATION

Notification of use and disuse of ionising radiations

6.—(1) Where at the date of the commencement of this Regulation (that is to say, at the expiration of fourteen days from the making of these Regulations) a factory is being used for work to which this Regulation applies,

or there is merely a temporary cessation in such work, the occupier shall give notice in writing to that effect to the chief inspector within one month from the said date of commencement.

(2) The occupier shall give previous notice in writing to the chief inspector which, except in cases of emergency, shall be not less than one month's notice or such shorter notice as the chief inspector may agree to accept—

(*a*) before undertaking in the factory for the first time after the said date of commencement or for the first time after a notice under paragraph (3) of this Regulation has been given in respect of the factory, work to which this Regulation applies; and

(*b*) before carrying out substantial extensions or modifications to apparatus or plant emitting or protecting against ionising radiations; so, however, that where in any factory such substantial extensions or modifications are frequently carried out it shall be a sufficient compliance with this sub-paragraph if the occupier so informs the chief inspector by a written notice which specifies the period during which the notice is intended to have effect.

(3) The occupier shall either before or within seven days after ceasing to use the factory (otherwise than merely temporarily) for work to which this Regulation applies give notice in writing to that effect to the chief inspector.

(4) In this Regulation the expression "work to which this Regulation applies" means work involving the storage, manipulation, maintenance, operation, use or installation of sealed sources or the operation or use of any machine or apparatus of the kind to which paragraph (1) of Regulation 3 relates.

Instruction of persons employed

7. No person employed shall be exposed to ionising radiations unless he has received appropriate instruction (to the extent that this is necessary having regard to the circumstances of his employment) concerning the hazards involved and the precautions to be observed.

Restriction of exposure to ionising radiations

8.—(1) Without prejudice to the other requirements of these Regulations, the occupier shall do all that is reasonably practicable to restrict the extent to which the persons employed are exposed to ionising radiations; and no person employed shall expose himself to ionising radiations to a greater extent than is reasonably necessary for the purposes of his work.

(2) No person shall receive any radiation dose in excess of that permitted in the case of that person under the Schedule to these Regulations.

Shielding against ionising radiations

9. Without prejudice to the other requirements of these Regulations as to adequate shielding, all sources of ionising radiations shall, where reasonably practicable, be adequately shielded.

Direction and size of useful beam

10.—(1) Wherever practicable the useful beam shall be directed away from adjacent occupied areas.

(2) The useful beam shall be limited by appropriate means to the minimum size reasonably necessary for the work.