

1993 No. 54

RADIOACTIVE SUBSTANCES

**The Radioactive Substances (Hospitals) Exemption Order
(Northern Ireland) 1993**

Made 11th February 1993

Coming into operation 1st April 1993

The Department of the Environment, in exercise of the powers conferred on it by sections 2(6) and (7), 6(5), 7(4) and 21(2) of the Radioactive Substances Act 1960(a) and of every other power enabling it in that behalf, hereby makes the following order:

Citation and commencement

1. This order may be cited as the Radioactive Substances (Hospitals) Exemption Order (Northern Ireland) 1993 and shall come into operation on 1st April 1993.

Interpretation

2.—(1) In this order—

“the Act” means the Radioactive Substances Act 1960;

“activity” means the number of spontaneous nuclear transformations occurring in a radioactive substance in a period of one second;

“alpha emitters” means radionuclides (including those which are decay products of others present) which emit alpha particles;

“the chief inspector” means the chief inspector appointed by the Department under section 11A(2) of the Act(b);

“closed source” means an object free from patent defect which consists of or includes one or more radionuclides firmly incorporated on, in or sealed within solid inert non-radioactive material so as to prevent the dispersion of any radioactive material in normal use;

“decay products” means, in relation to any radionuclide, the radionuclides succeeding it in the same radioactive series;

“the Department” means the Department of the Environment for Northern Ireland;

“hospital” means—

(a) 1960 c. 34, sections 2(6) and 6(5) were amended by section 100(3) of the Environmental Protection Act 1990 (c. 43), section 21(2) was amended by paragraph 20(a) of Schedule 5 to the Environmental Protection Act 1990 and is cited because it provides that any reference to the Secretary of State is to be construed as a reference to the Department of the Environment for Northern Ireland

(b) Section 11A was inserted by the Environmental Protection Act 1990 (c. 43), Schedule 5

- (a) any institution for the reception and treatment of persons suffering from illness (including any mental disorder within the meaning of the Mental Health (Northern Ireland) Order 1986(a) and any injury or disability requiring medical or dental treatment or nursing);
- (b) any institution for the reception and treatment of persons during convalescence or persons requiring medical rehabilitation;
- (c) any nursing home within the meaning of Part III of the Registered Homes (Northern Ireland) Order 1992(b);
- (d) any clinic, dispensary or out-patient department maintained in connection with any such institution or home;

and "hospital premises" shall be construed accordingly;

"inspector" means the inspector appointed by the Department under Section 11A(1) of the Act;

"liquid" includes a liquid with solid matter in suspension in it;

"patient" includes an expectant or nursing mother and a lying-in woman;

"site licence" means a disposal licence within the meaning of Part II of the Pollution Control and Local Government (Northern Ireland) Order 1978(c).

(2) Any reference in this order to the sum total activity is a reference to the sum total ascertained by measurement by a reliable method or, where it is not reasonably practicable to ascertain the sum total by measurement, the sum total estimated in a reliable manner.

(3) The Interpretation Act (Northern Ireland) 1954(d) shall apply to this order as it applies to a Measure of the Northern Ireland Assembly.

Exemption from registration

3.—(1) Subject to paragraph (3) and the conditions specified in Schedule 1 to this order, a person using premises as a hospital is exempted from registration under section 1 of the Act in respect of those premises in relation to the keeping and use on those premises of radioactive material to which paragraph (2) applies which is kept or used on the premises for the purposes of medical diagnosis, treatment of patients or supply to another hospital.

(2) This Article applies to radioactive material which is solid or liquid, contains no alpha emitters and, in the case of solid material, is not a closed source.

(3) Paragraph (1) does not apply where a registration under section 1 of the Act is in force in respect of the premises.

(a) S.I. 1986 No. 595 (N.I. 4)
(b) S.I. 1992 No. 3204 (N.I. 20)
(c) S.I. 1978 No. 1049 (N.I. 19)
(d) 1954 c. 33 (N.I.)

Exclusion for certain disposals

4.—(1) Subject to paragraph (2) and the conditions specified in Schedule 2 to this order, radioactive waste arising on hospital premises is excluded from the provisions of section 6(1) of the Act if it is solid or liquid waste, contains no alpha emitters and—

- (a) immediately before it became waste it was radioactive material to which Article 3(2) applies; or
- (b) it is a substance or an article which is radioactive solely because it has been contaminated in the course of the keeping or use of radioactive material on those premises for the purposes of medical diagnosis, treatment of patients or supply to another hospital or by contact with or proximity to other waste falling within this paragraph; or
- (c) it is human excreta; or
- (d) it is residual ash (including cinders and other debris) produced by the burning of other waste falling within this paragraph.

(2) Paragraph (1) does not apply where an authorisation under section 6(1) of the Act is in force in respect of the disposal of radioactive waste on or from the premises.

(3) Radioactive waste to which paragraph (1) applies is excluded from section 6(3) of the Act if—

- (a) it is solid waste and it has been removed from the premises by a person other than a district council for disposal at the same place as substantial quantities of non-radioactive waste in or on land subject to a site licence; or
- (b) it is solid waste and it has been removed from the premises by a district council; or
- (c) it is solid waste or flammable liquid waste and it has been removed from the premises by a person other than a district council for disposal by burning on other hospital premises, subject to the condition that it is disposed of by burning on those other premises in compliance with paragraph 5 of Schedule 2.

Exclusion for certain accumulations

5.—(1) Radioactive waste to which Article 4(1) applies is excluded from the provisions of section 7(1) of the Act if it is kept in a closed container on hospital premises and it is disposed of within a period of 2 weeks from the date upon which the waste arises.

(2) Radioactive waste which has been removed from hospital premises in accordance with Article 4(3) is excluded from the provisions of section 7(1) of the Act subject to the condition that it is disposed of as soon as practicable after its removal.

Revocation

6. The Radioactive Substances (Hospitals' Waste) Exemption Order (Northern Ireland) 1963(a) is hereby revoked.

Sealed with the Official Seal of the Department of the Environment on
11th February 1993.

(L.S.)

R. W. Rogers

Assistant Secretary

Conditions mentioned in Article 3(1)*Interpretation*

1. Radionuclides within patients as a result of medical diagnosis or treatment shall not be taken into account for the purposes of any of the provisions of this Schedule and radionuclides which are decay products of others present in the premises shall not be taken into account for the purposes of paragraph 2.

Conditions

2. The sum total activity of radionuclides in radioactive material to which Article 3(2) applies kept or used on the premises at any one time shall not exceed—

- (a) in the case of technetium 99m, 1 gigabecquerel;
- (b) in the case of all other radionuclides, 100 megabecquerels, of which not more than 20 megabecquerels shall comprise radionuclides which are radioisotopes of iodine.

3. The loss or escape of any radioactive material to which Article 3(2) applies and unauthorised access to such material shall, so far as is reasonably practicable, be prevented.

4. Radioactive material to which Article 3(2) applies shall, so far as is reasonably practicable, be kept under continuous surveillance or in a container which satisfies the requirements of paragraph 5 and which is located in a store which also satisfies those requirements.

5. The requirements mentioned in paragraph 4 are that the container and the store—

- (a) are constructed, maintained and used so as to prevent, so far as is reasonably practicable, the loss, escape or unauthorised removal of the radioactive material;
- (b) are constructed of non-combustible materials;
- (c) do not contain any explosive or flammable material and are not located near to such material; and
- (d) are clearly marked with the word "Radioactive" and the radiation symbol conforming to the specification for a basic symbol to denote the actual or potential presence of ionizing radiation published by the British Standards Institution and numbered BS 3510: 1968(a) or the basic ionizing radiation symbol published by the International Organisation for Standardization and numbered ISO 361: 1975.

6. Radioactive material to which Article 3(2) applies shall, so far as is reasonably practicable, be kept and used in a part of the hospital premises which is constructed, maintained and used so that—

- (a) the floor, ceiling, walls, windows, fixtures, fittings, furniture, drainage and ventilation systems of that part of the premises do not readily become contaminated; and
- (b) any contamination which does occur can easily be removed.

7. If there are reasonable grounds for believing that any radioactive material to which Article 3(2) applies has escaped from its container, store or the part of the premises where it is kept or used or that it has been lost or stolen—

- (a) the incident shall be investigated without delay;
- (b) the chief inspector shall be informed in writing within 7 days;
- (c) if an escape is suspected, steps shall, so far as is reasonably practicable, be taken to prevent any further escape and to minimise the spread of contamination;
- (d) if loss or theft of radioactive material with an activity in excess of 200 kilobecquerels is suspected, the police shall be informed as quickly as possible and all such steps as are reasonably practicable shall be taken to recover the material.

8. Clear, legible and up-to-date records shall be maintained on the premises and made available for inspection by an inspector and shall show in relation to each description of radioactive material to which Article 3(2) applies—

- (a) the date on which it was received on the premises, the radionuclide contained therein and its activity on that date;
- (b) so far as is reasonably practicable, its location on the premises;
- (c) if it has been removed from the premises, the date on which it was removed, its activity on that date and the name and address of any person to whom it was transferred; and
- (d) the total activity present on the premises at the end of each month.

Conditions mentioned in Article 4(1)

1. Clear, legible and up-to-date records shall be maintained on the premises and made available for inspection by an inspector and shall show separately in relation to radioactive waste which is disposed of in accordance with paragraph 4, 5 or 6—

- (a) the dates on which the waste is disposed of; and
- (b) the sum total activity of radionuclides in the radioactive waste disposed of in any month.

2. The chief inspector shall, within 7 days, be notified in writing of the first disposal of radioactive waste to which Article 4(1) applies which occurs after this order comes into operation.

3. Radioactive waste to which Article 4(1) applies shall not be disposed of except in accordance with the following provisions of this Schedule.

4.—(1) Solid radioactive waste may be disposed of by—

- (a) a district council removing it from the hospital premises with a view to its disposal elsewhere; or
- (b) a person other than a district council removing it from those premises with a view to its disposal at the same place as substantial quantities of non-radioactive waste in or on land subject to a site licence.

(2) At the time of its removal from the hospital premises the sum total activity in any 0.1 cubic metre of the waste shall not exceed 400 kilobecquerels and the sum total activity of any individual article in the waste shall not exceed 40 kilobecquerels.

5.—(1) Solid or flammable liquid radioactive waste may be disposed of by—

- (a) burning it on the hospital premises in accordance with the provisions of this paragraph; or
- (b) a person removing it from those premises with a view to its disposal by burning on the premises of another hospital in accordance with those provisions.

(2) The sum total activity of radionuclides in the waste burnt on the premises shall not exceed in any month—

- (a) 25 megabecquerels in the case of carbon 14 and tritium taken together; and
- (b) 5 megabecquerels in the case of all other radionuclides.

(3) The waste shall be burnt in an incinerator used for the destruction of clinical waste in such manner as to ensure that any gas or vapour produced will be discharged into the open air at such points and in a way which will prevent, so far as reasonably practicable, the entry of such gas or vapour into any part of any building.

(4) All residual ash so produced shall be disposed of in accordance with paragraph 4.

(5) In this paragraph “clinical waste” has the same meaning as in regulation 2(1) of the Waste Collection and Disposal Regulations (Northern Ireland) 1992(a).

6.—(1) Aqueous liquid radioactive waste shall be disposed of from the hospital premises by discharging it into a drainage system which drains to a sewer which is normally used for the disposal of foul water or trade effluent.

(2) The sum total activity of radionuclides in human excreta in the aqueous liquid radioactive waste disposed of in any month shall not exceed—

(a) in the case of technetium 99m, 1 gigabecquerel; and

(b) in the case of all other radionuclides, 500 megabecquerels.

(3) The sum total activity of radionuclides other than in human excreta in the aqueous liquid radioactive waste disposed of in any month shall not exceed 50 megabecquerels.

(4) In this paragraph “sewer” and “trade effluent” have the same meanings as in Article 2(2) of the Water and Sewage Services (Northern Ireland) Order 1973(a).

(a) S.I. 1973 No. 70 (N.I. 2)

EXPLANATORY NOTE

(This note is not part of the Order.)

This order excludes (subject to conditions specified in the order) certain radioactive material which is kept or used on hospital premises from the provisions of section 1 of the Radioactive Substances Act 1960 (which prohibits the keeping or use of certain radioactive material on premises without registration) and certain radioactive waste arising on those premises from the provisions of sections 6 and 7 of that Act (which prohibit the disposal and accumulation of radioactive waste).

A copy of the British Standard mentioned in Schedule 1 to the order is available from any of the sales outlets of the British Standards Institution or by post from the British Standards Institution, Linford Wood, Milton Keynes MK14 6LE (Telephone No.: Milton Keynes (STD 0908 320033)).