

1986 No. 12

ATOMIC ENERGY AND RADIOACTIVE SUBSTANCES

The Radioactive Substances (Testing Instruments) Exemption Order
(Northern Ireland) 1986

Made 16th January 1986

Coming into operation 1st April 1986

The Department of the Environment in exercise of the powers conferred by sections 2(6) and (7), 4(2) and (3), 6(5), 7(4) and 21 of the Radioactive Substances Act 1960(a) and now vested in it(b) 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 (Testing Instruments) Exemption Order (Northern Ireland) 1986 and shall come into operation on 1st April 1986.

Interpretation

2.—(1) In this Order:—

“the Act” means the Radioactive Substances Act 1960;

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

“Class 1 source” means a homogeneous source, a laminated source, a sealed source, an electrodeposited source or a tritium foil source, in which the total number of kilobecquerels of all the radionuclides present, including radionuclides which are decay products of other radionuclides present, does not exceed 200;

“Class 2 source” means a homogeneous source, a laminated source, a sealed source, an electrodeposited source or a tritium foil source, other than a Class I source, in which the total number of megabecquerels of activity of all the radionuclides present, including radionuclides which are decay products of other radionuclides present, does not exceed the number specified for that source in the Schedule;

“decay products” means, in relation to any radionuclide, the radionuclides succeeding it in the radioactive series in which it and they occur;

“the Department” means the Department of the Environment;

“district council” means a district council within the meaning of the Local Government Act (Northern Ireland) 1972(c);

“electrodeposited source” means an article free from patent defect which consists of iron or nickel electrodeposited on to a metal substrate and which is radioactive material solely due to the presence of iron 55 or nickel 63;

(a) 1960 c. 34

(b) S.R. & O. (N.I.) 1964 No. 205; S.R. & O. (N.I.) 1965 No. 13; S.R. & O. (N.I.) 1972 No. 111; S.R. & O. (N.I.) 1973 No. 504

(c) 1972 c. 9 (N.I.)

“exhibition” means an exhibition or display held for the purposes of any trade, business or profession, and includes any demonstration of the use or uses to which material included in such an exhibition or display may be put;

“homogeneous source” means an article free from patent defect which—

(a) is made wholly from a substance which—

(i) is solid, coherent, homogeneous and tough; and

(ii) is radioactive material or a mixture of radioactive material and material which is not radioactive material,

being a substance in which the radionuclides present do not emit alpha particles; or

(b) is made partly from or incorporates such a substance and is radioactive material solely because of the presence of that substance;

“laminated source” means an article free from patent defect consisting of a layer of coherent radioactive material sandwiched between and securely bonded to layers of coherent, inert and tough material which is not radioactive material;

“sealed source” means radioactive material sealed in a container (otherwise than solely for the purpose of storage, transport or disposal) or bonded wholly within material, the immediate container or the bonding being of adequate mechanical strength and free from patent defect and not constructed of radioactive material, and includes the immediate container or the bonding;

“testing instrument” means any apparatus, equipment or appliance designed for testing, measuring or otherwise investigating any of the characteristics of a substance or article;

“tritium foil source” means an article which consists of material which is not radioactive material and which has a mechanically tough surface free from patent defect into which tritium is incorporated, being an article which is radioactive material solely due to the presence of tritium;

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

Revocation

3. The Radioactive Substances (Testing Instruments) Exemption Order (Northern Ireland) 1962(b) is hereby revoked.

Exemption from registration under section 1 of the Act

4. Subject to Article 7 all persons are exempted from registration under section 1 of the Act in respect of the keeping and use of radioactive material mentioned in Article 6 on premises to which this Article applies.

Classes of premises to which exemption relates

5. Article 4 applies to any premises other than premises used for or in connection with the manufacture or storage for sale or hire or exhibition of radioactive material mentioned in Article 6.

Radioactive material exempted

6. Article 4 applies to radioactive material which is either—

(a) a testing instrument which is radioactive material solely because it incorporates one or more Class 1 or Class 2 sources but does not incorporate two or more sources of the same description with an aggregate number of megabecquerels of activity exceeding the number specified in the Schedule in relation to sources of that description; or

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

(b) S.R. & O. (N.I.) 1962 No. 241

- (b) a Class 1 or Class 2 source (not incorporated in a testing instrument) for use with, or for testing or calibrating a testing instrument.

Conditions of exemption under Article 4

7.—(1) The exemption granted by Article 4 is subject, in relation to all Class 2 sources on the premises (whether or not incorporated in testing instruments), to the conditions set out in paragraph (2).

- (2) The conditions mentioned in paragraph (1) are that—
- (a) a record is kept at the premises, and retained there for inspection by any person authorised by the Department in that behalf, showing—
- (i) the date of receipt on the premises of every such source, the manufacturer's type number and the number of megabecquerels of activity contained in the source at the date of receipt; and
 - (ii) the date on which any such source is removed from the premises, the address of the premises to which it was removed and the name of the occupier of those premises;
- (b) no material (whether radioactive or not) forming part of such a source is removed therefrom;
- (c) no such source is mutilated;
- (d) where there are reasonable grounds for thinking any such source has been stolen or lost—
- (i) the Royal Ulster Constabulary is notified as quickly as possible of the suspected theft or loss and the Department is advised of the occurrence in writing as soon as practicable; and
 - (ii) all reasonably practicable steps are taken forthwith to recover the source;
- (e) where it becomes known, or there are reasonable grounds for thinking—
- (i) that the immediate container or the bonding forming part of such a source is broken or damaged; or
 - (ii) that any material (whether radioactive or not) forming part of such a source has been removed therefrom; or
 - (iii) that any radioactive material has become detached, or has escaped, from such a source because of some defect therein.

the Department is advised of the occurrence or suspected occurrence by the quickest means available, and if the advice is given orally, that it is confirmed in writing as soon as is practicable.

Exemption from registration under section 3 of the Act

8.—(1) Subject to paragraphs (3) and (4), all persons are exempted from registration under section 3 of the Act (which provides for the registration of mobile radioactive apparatus) in respect of mobile radioactive apparatus to which this paragraph applies.

(2) Paragraph (1) applies to apparatus consisting of a testing instrument falling within Article 6(a) or a source falling within Article 6(b), not being—

- (a) a testing instrument incorporating one or more electrodeposited or tritium foil sources; or
- (b) an electrodeposited or tritium foil source; or
- (c) apparatus kept or used as an exhibit at an exhibition.

(3) The exemption granted by paragraph (1) is granted subject to the conditions set out in paragraph (4) in relation to Class 2 sources (whether or not comprised in apparatus).

- (4) The conditions mentioned in paragraph (3) are that—

- (a) a record is kept at a place or places notified to the Department showing the date of first receipt of the source, the manufacturers' type number, the number of megabecquerels contained in the source, the date when any source is exchanged or disposed of, the address of the premises to which it is removed, and of the name of the occupier of those premises;
- (b) no material (whether radioactive or not) forming part of the source is removed therefrom;
- (c) no source is mutilated;
- (d) where there are reasonable grounds for believing a source has been stolen or lost—
 - (i) the Royal Ulster Constabulary is notified as quickly as possible of the suspected theft or loss and the Department is advised of the occurrence in writing as soon as practicable; and
 - (ii) all reasonably practicable steps are taken forthwith to recover the source.
- (e) where it becomes known or there are reasonable grounds for thinking—
 - (i) in the case of a sealed source, that the immediate container or the bonding of the source is broken or damaged; or
 - (ii) that any material (whether radioactive or not) forming part of a source has been removed therefrom; or
 - (iii) that any radioactive material has become detached, or has escaped, from a source because of some defect therein,

the Department is advised of the occurrence or suspected occurrence by the quickest means available and if the notification is given orally, that it is confirmed in writing as soon as is practicable.

Exclusion of waste from Class 1 sources from sections 6 and 7 of the Act

9.—(1) Radioactive waste, which—

- (a) immediately before it became waste, was a Class 1 source, or part of such a source; or
- (b) consists of waste which is radioactive waste solely because it has been contaminated by contact with, or proximity to, such a source or other waste which is radioactive waste because it has been so contaminated,

is hereby excluded from the provisions of section 6(1) and (2) of the Act (authorisation required for the disposal of radioactive waste), subject to the conditions set out in paragraph (2).

(2) The conditions mentioned in paragraph (1) are that—

- (a) the waste is disposed of by—
 - (i) removal as refuse by a district council or its contractors; or
 - (ii) dispatch to, or removal by, a person authorised under section 6(3) of the Act to dispose of such radioactive waste or by a manufacturer of Class 1 sources;
- (b) where it is disposed of as refuse by the means referred to in sub-paragraph(a)(i)—
 - (i) the waste is dispersed in other refuse which is not radioactive waste; and
 - (ii) not more than 1 former source (whether whole or in parts and whether or not absorbed in, mixed with or adhering to other articles or substances) is disposed of as refuse by that means from the premises in any one week; and
- (c) a record is kept at the premises from which the waste is dispatched or removed and retained there for inspection by any person authorised by the Department in that behalf, showing—

- (i) the description of the waste disposed of and the number of kilobecquerels contained in the waste at the time of its disposal; and
- (ii) the means and date of its disposal.

(3) Radioactive waste falling within paragraph (1) and accumulated with a view to its subsequent disposal by the means referred to in paragraph (2) is hereby excluded from the provisions of section 7(1) of the Act (accumulation of waste) subject to the condition that it is disposed of as soon as practicable.

(4) Radioactive waste falling within paragraph (1) received as refuse by a district council or its contractors is hereby excluded—

- (a) from the provisions of section 6(3) of the Act (disposal of waste by persons receiving it for disposal) subject to the condition that it is dispersed in other refuse; and
- (b) from the provisions of section 7(1) of the Act (accumulation of radioactive waste), subject to the conditions that—
 - (i) it is dispersed in other refuse; and
 - (ii) the refuse in which it is dispersed is disposed of as soon as practicable.

Exclusion of waste from Class 2 sources from sections 6 and 7 of the Act

10.—(1) Radioactive waste which, immediately before it became waste, consisted of Class 2 sources, is hereby excluded from the provisions of section 6(1) and (2) of the Act, provided that it is disposed of by dispatch to or removal by—

- (a) a person authorised under section 6(3) of the Act to dispose of such radioactive waste; or
- (b) a manufacturer of Class 2 sources.

(2) Radioactive waste mentioned in paragraph (1) and accumulated for disposal in a manner mentioned in that paragraph is hereby excluded from the provisions of section 7(1) of the Act, subject to the condition that it is disposed of as soon as practicable.

Sealed with the Official Seal of the Department of the Environment on 16th January 1986.

(L.S.)

J. M. Beckett

Under Secretary

SCHEDULE

<i>Description</i> 1	<i>Maximum number of megabecquerels</i> 2
Homogeneous source	0.4
Laminated source	4
Sealed source	4
Electrodeposited source containing iron 55	200
Electrodeposited source containing nickel 63	600
Tritium foil source	2×10^4

EXPLANATORY NOTE

(This note is not part of the Order.)

This Order is concerned with exemptions and exclusions under the Radioactive Substances Act 1960 in respect of testing instruments and radioactive sources used in conjunction with such instruments.

The Order revokes and re-enacts with amendments the Radioactive Substances (Testing Instruments) Exemption Order (Northern Ireland) 1962. Exemption is now given in relation to electrodeposited sources containing either nickel 63 or iron 55 and tritium foil sources and measures of radioactivity which formerly were specified in curies are now specified in becquerels, following adoption of the International System of Units (SI Units).

Approximate equivalents in curies to values specified in the Order are given below:—

200 kilobecquerels	=	5.4×10^{-6}	curies
0.4 megabecquerels	=	1.08×10^{-5}	curies
4 megabecquerels	=	1.08×10^{-4}	curies
200 megabecquerels	=	5.4×10^{-3}	curies
600 megabecquerels	=	16.2×10^{-3}	curies
2×10^4 megabecquerels	=	54×10^{-2}	curies

Articles 4 to 7 grant exemption (in some cases conditionally) from registration under section 1 of the Act in respect of the keeping and use on premises, other than those mentioned in Article 5, of—

- (a) radioactive instruments (of the kind used for testing the characteristics of material) incorporating homogeneous, laminated, sealed, electrodeposited and tritium foil sources possessing limited radioactivity; and
- (b) separate radioactive sources for use with such testing instruments.

Article 8 exempts persons (in some cases conditionally) from registration under section 3 in respect of certain types of mobile radioactive apparatus incorporating such instruments or sources.

Conditions of exemption are set out in Articles 7(2) and 8(4).

Articles 9 and 10 dispense with the need (in some cases conditionally) for express authorisation under section 6(1), (2) and (3) and 7(1) of the Act for the accumulation and disposal of radioactive waste arising directly or indirectly from the keeping or use of sources exempted by earlier provisions of the Order. The exclusion is subject to the condition that the waste is disposed of by removal by a person authorised to receive waste sources of this type or by a person producing similar radioactive sources or, in the case of waste arising directly or indirectly from the use of radioactive sources of not more than 200 kilobecquerels, by a district council or its contractors.