

**2010 No. 0000**

**ATOMIC ENERGY AND RADIOACTIVE SUBSTANCES**

**The Radioactive Substances (Exemption) (NI) Order 2010**

*Made* - - - - - \*\*\*  
*Laid before Parliament* \*\*\*  
*Coming into force* - - - \*\*\* 2010

The \*\*\*, in exercise of the powers conferred by \*\*\* of the \*\*\* Act \*\*\*(a), makes the following Order:]

**PART 1**

**General**

**Citation, commencement and extent**

**1. This Order—**

- (a) may be cited as the Radioactive Substances (Exemption) (NI) Order 2011;
- (b) comes into force on xx yyy 2011;
- (c) extends to Northern Ireland.

**Interpretation**

**2.—(1) In this Order—**

“the Act” means the Radioactive Substances Act 1993**(b)**;

“a Ba-137m eluting source” means a Ba-137m source which is generated from the decay of Cs-137 in a sealed container;

“Bq” means Becquerels;

“a Class A gaseous tritium lighting device” means such a device where the activity of the device does not exceed  $2 \times 10^{10}$  Bq of tritium;

“a Class B gaseous tritium lighting device” means such a device which is installed or intended to be installed on a premises and where the activity—

- (a) in each sealed container in the device does not exceed  $8 \times 10^{10}$  Bq of tritium; and
- (b) of the device does not exceed  $1 \times 10^{12}$  Bq of tritium;

“a Class C gaseous tritium lighting device” means such a device installed or intended to be installed—

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(a) \*\*\*.  
(b) 1993 c. 12.

(a) in a vessel or aircraft; or

(b) in equipment used or intended to be used by the armed forces of the Crown;

“an electrodeposited source” means an article where radionuclides are electrodeposited onto a metal substrate, and—

(a) where such an article is fitted inside equipment; and

(b) by virtue of that equipment the source would otherwise be classed as a sealed source, the source is to be treated as an electrodeposited source rather than a sealed source for the purposes of this Order;

“an environmental permit to dispose of or accumulate waste” means a permit under the Environmental Permitting (England and Wales) Regulations 2010<sup>(a)</sup> in relation to the radioactive substances activity described in paragraph 5(2)(b) or (c) of Part 2 of Schedule 23 to those Regulations;

“a gaseous tritium lighting device” means a sealed source in a device which is an illuminant, instrument, sign or indicator which—

(a) incorporates tritium in one or more sealed containers constructed to prevent dispersion of that tritium in normal use; and

(b) is radioactive material solely because it contains that tritium;

“m” where it appears after a radionuclide means a radionuclide in a metastable state of radioactive decay in which gamma photons are emitted;

“NORM waste” means a substance or article which is radioactive waste—

(a) under section 1A of the Act, where that radioactive waste is solid; or

(b) under section 1B of the Act, where the radioactive waste—

(i) is solid; and

(ii) arises from the remediation of land which was contaminated by the process described in section 1B of the Act, but not including the remediation of land—

(aa) in relation to which a nuclear site licence is in force; or

(bb) in relation to which a nuclear site licence has been revoked or surrendered but where the period of responsibility of the licensee has not come to an end;

“the relevant time” means the time at which this Order comes into force;

“remediation” has the meaning given to that term in section 78A of the Environmental Protection Act 1990<sup>(b)</sup>;

“a sealed source” means a radioactive source containing radioactive material where the structure is designed to prevent, under normal use, any dispersion of radioactive substances;

“the standard disposal route” means disposal to a person who disposes of substantial quantities of non-radioactive waste by burying it in landfill or by incinerating it, or who recycles substantial quantities of such waste, in each case where the radioactive waste is to be mixed with such non-radioactive waste for the purposes of such burial, incineration or recycling;

“stored in transit” means the storage in the course of transit of radioactive material or radioactive waste;

“table 1” means the table with that number in Schedule 1;

“table 1 first summation rule” or “table 1 second summation rule” means the relevant summation rule following table 1;

“table 2” means the table with that number in Schedule 1;

“table 3” means the table with that number in Schedule 1;

“table 4” means the table with that number in Schedule 1;

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(a) S.I. 2010/675.

(b) 1990 c. 43. Section 78A was inserted by the Environment Act 1995 (c. 25), section 57.

“table 4 summation rule” means the summation rule following table 4;

“a tritium foil source” means an article which—

- (a) has a mechanically tough surface into which tritium is incorporated; and
- (b) is radioactive material solely because of that tritium.

(2) Other terms used in this Order have the same meaning as they do in the Act.

### **Table of Values**

3. Schedule 1 (Tables of radionuclides and descriptions of radioactive material and radioactive waste) has effect.

## **PART 2**

### **Exemption from registration under section 7**

#### **Exemption from registration under section 7**

4. For all classes of premises and undertakings to which section 7 of the Act (registration of users of radioactive material) applies, a person is exempt from registration under that section in respect of—

- (a) subject to article 7, radioactive material in article 5, where that person complies with the conditions in article 6;
- (b) radioactive material stored in transit, where that person complies with the conditions in article 29.

#### **Radioactive material**

5. Radioactive material referred to in article 4(a) means any of the following radioactive material—

- (a) material where—
  - (i) the material is not material—
    - (aa) described in column 1 of table 2; or
    - (bb) which satisfies paragraph (d);
  - (ii) the quantity of any radionuclide listed in column 1 of table 1 in all such material on a premises does not exceed the value specified in column 2 of that table adjacent to that radionuclide; and
  - (iii) the sum of the quotient values of all such radionuclides in all such material on a premises, as determined by the table 1 first summation rule, is less than or equal to one;
- (b) material where—
  - (i) the material is not material—
    - (aa) described in column 1 of table 2; or
    - (bb) which satisfies paragraph (d);
  - (ii) the concentration of any radionuclide listed in column 1 of table 1 in all such material on a premises does not exceed the value specified in column 3 of that table adjacent to that radionuclide; and
  - (iii) the sum of the quotient values of all such radionuclides in all such material on a premises, as determined by the table 1 second summation rule, is less than or equal to one;

- (c) material described in column 1 of table 2 which is not mobile radioactive apparatus and where the quantity of radionuclides—
  - (i) in any item of that material does not exceed the value specified in column 2 of that table; and
  - (ii) in items of that material on the premises where it is kept or used does not exceed the value specified in column 3 of that table;
- (d) material—
  - (i) which is not a sealed source;
  - (ii) which is intended for use for medical or veterinary diagnosis or treatment or clinical or veterinary trials; and
  - (iii) where the quantity on the premises of—
    - (aa) Tc-99m in that material does not exceed  $1 \times 10^9$  Bq; and
    - (bb) any other radionuclides in that material does not exceed  $1 \times 10^8$  Bq in total.

### **Conditions in respect of radioactive material**

- 6.** A person to whom article 4(a) applies must—
- (a) keep an adequate record of the radioactive material which the person keeps or uses on any premises, and the location within those premises where it is kept or used;
  - (b) ensure that where practicable such material is marked or labelled as radioactive material;
  - (c) when not in use, store the radioactive material safely and securely to prevent, so far as practicable, accidental removal, loss or theft from the premises where the person keeps or uses the material;
  - (d) in respect of an incident of loss or theft, or suspected loss or theft, of the radioactive material which the person keeps or uses on any premises, notify the incident to the chief inspector as soon as practicable;
  - (e) where any unintentional loss of containment takes place or is suspected to have taken place, notify the incident to the chief inspector as soon as practicable;
  - (f) in respect of a sealed source or packaged radioactive material, not modify or mutilate that source or package or cause a loss of containment such that radioactive material may be released outside the source or package;
  - (g) allow the chief inspector access to such records or such premises as the chief inspector may request in order to determine that the above conditions are complied with; and
  - (h) not bring any mobile radioactive apparatus onto any premises where this would cause the value specified in column 3 of table 2 to be exceeded in respect of the combined quantities of radionuclides in—
    - (i) items of radioactive material described in column 1 of table 2 which are kept or used on the premises but which are not mobile radioactive apparatus; and
    - (ii) items of that material which are mobile radioactive apparatus and which are on the premises.

### **Scope of Exemption**

**7.—(1)** This article applies to a person (“A”) who has a registration under section 7 of the Act (registration of users of radioactive material).

(2) Article 4(a) does not apply to A in relation to material described in article 5(a) or (b) where the registration of A applies to radioactive material—

- (a) described in article 5(a)(i) in respect of which the value in article 5(a)(ii) or (iii) is exceeded; or

- (b) described in article 5(b)(i) in respect of which the value in article 5(b)(ii) or (iii) is exceeded.

(3) Article 4(a) does not apply to A in relation to any items of a particular class of radioactive material described in one of the rows of table 2 where—

- (a) the registration of A relates to an item or items of that class (not being mobile radioactive apparatus); and
- (b) in respect of the item or items of that class covered by the registration and not being mobile radioactive apparatus the values in article 5(c)(i) or (ii) are exceeded.

(4) Article 4(a) does not apply to A in relation to the material that meets the description in both article 5(d)(i) and (ii) where—

- (a) the registration of A relates to that type of material; and
- (b) in respect of all such material covered by the registration the values in article 5(d)(iii)(aa) or (bb) are exceeded.

## PART 3

### Exemption from registration under section 10

#### **Exemption from registration under section 10**

**8.** A person to whom section 10 of the Act (registration of mobile radioactive apparatus) applies is exempt from registration under that section in respect of—

- (a) subject to article 11, mobile radioactive apparatus in article 9, where that person complies with the conditions in article 10;
- (b) mobile radioactive apparatus stored in transit, where that person complies with the conditions in article 29.

#### **Radioactive material: mobile radioactive apparatus**

**9.** Mobile radioactive apparatus referred to in article 8(a) means the radioactive material described in column 1 of table 2 where the quantity of radionuclides—

- (a) in any item of that material does not exceed the value specified in column 2 of that table; and
- (b) in items of that material held by a person does not exceed the value specified in column 3 of that table, in relation only to items which are mobile radioactive apparatus.

#### **Conditions in respect of mobile radioactive apparatus**

**10.** A person to whom article 8(a) applies must—

- (a) keep an adequate record of the mobile radioactive apparatus which the person keeps or uses, and the location at which it is kept or used;
- (b) ensure that where practicable such mobile radioactive apparatus is marked or labelled as radioactive material;
- (c) when not in use, store the mobile radioactive apparatus safely and securely to prevent, so far as practicable, accidental removal, loss or theft of the apparatus;
- (d) in respect of an incident of loss or theft, or suspected loss or theft, of the mobile radioactive apparatus which the person keeps or uses, notify the incident to the chief inspector as soon as practicable;
- (e) where any unintentional loss of containment takes place or is suspected to have taken place, notify the incident to the chief inspector as soon as practicable;

- (f) in respect of a sealed source, not modify or mutilate that source or cause a loss of containment such that radioactive material may be released outside the source; and
- (g) allow the chief inspector access to such records or such premises as the chief inspector may request in order to determine that the above conditions are complied with.

**Scope of exemption**

**11.**—(1) Paragraph (2) applies to a person (“A”) who has a registration under section 10 of the Act (registration of mobile radioactive apparatus).

(2) Article 8(a) does not apply to A in relation to any items of a particular class of radioactive material described in one of the rows of table 2 where—

- (a) the registration of A relates to an item or items of that class and the item is mobile radioactive apparatus; and
- (b) in respect of the item or items of that class being mobile radioactive apparatus and covered by the registration the values in article 9(a) or (b) are exceeded.

**PART 4**

**Exemption from authorisation under section 13: solid radioactive waste**

**Exemption from authorisation under section 13: solid radioactive waste**

**12.** Subject to article 15, a person is exempt from authorisation under section 13 of the Act (disposal of radioactive waste) in respect of radioactive waste which satisfies article 13, where that person complies with the conditions in article 14.

**Solid radioactive waste**

**13.** Radioactive waste referred to in article 12 means radioactive waste described in column 1 of table 3 where—

- (a) the waste is solid;
- (b) the quantity or concentration level of any radionuclide which the waste contains does not exceed the value specified in column 2 of that table adjacent to the type of waste; and
- (c) the quantity of the waste or, as applicable, the quantity of any radionuclide which that waste contains, does not exceed the value specified in column 3 of that table adjacent to the type of waste during the period stated in that column,

but not such waste which has been subject to a process of dilution intended to ensure that (b) or (c) is met.

**Conditions in respect of solid radioactive waste**

**14.**—(1) Subject to paragraphs (2) and (3), a person to whom article 12 or article 21 applies must—

- (a) keep an adequate record of the solid radioactive waste which the person disposes of on or from any premises;
- (b) where any unintended loss of containment takes place or is suspected to have taken place, notify the incident to the chief inspector as soon as practicable;
- (c) dispose of the waste by the route described in column 4 of table 3, except—
  - (i) in relation to NORM waste to which no exemption under article 12 applies but an exemption in article 21 applies; or
  - (ii) where the solid radioactive waste is disposed of to a person who holds—
    - (aa) an authorisation under the Act to dispose of or accumulate that waste; or

- (bb) an environmental permit to dispose of or accumulate waste in relation to the disposal or accumulation of that waste;
- (d) ensure that where practicable any marking or labelling of the waste or its container is removed before the person disposes of that waste as provided under (c);
- (e) where the waste is a disused high-activity source, notify the details of the disposal to the chief inspector within 14 days of the disposal; and
- (f) allow the chief inspector access to such records or such premises as the chief inspector may request in order to determine that the above conditions are complied with.

(2) Paragraph (1) does not apply to a person who receives radioactive waste for disposal where in respect of the premises on which the disposal takes place, that person manages, treats or disposes of substantial quantities of waste which is not radioactive.

(3) Paragraph (1)(e) does not apply in relation to a gaseous tritium lighting device.

### **Scope of exemption**

**15.**—(1) Paragraph (2) applies to a person (“A”) who has an authorisation under section 13 of the Act (disposal of radioactive waste).

(2) Article 12 does not apply to A where the authorisation of A applies to solid or non-aqueous liquid radioactive waste described in column 1 of table 3 in respect of which the value in article 13(b) or (c) is exceeded.

## **PART 5**

### **Exemption from authorisation under section 13: aqueous radioactive waste**

#### **Exemption from authorisation under section 13: aqueous radioactive waste**

**16.** Subject to article 19, a person is exempt from authorisation under section 13 of the Act (disposal of radioactive waste) in respect of aqueous radioactive waste which satisfies article 17, where that person complies with the conditions in article 18.

#### **Aqueous radioactive waste**

**17.** Aqueous radioactive waste referred to in article 16 means—

- (a) aqueous radioactive waste which contains any radionuclide listed in column 1 of table 4 where—
  - (i) the concentration level of any such radionuclide in that waste does not exceed the value specified in column 2 of that table adjacent to the radionuclide; and
  - (ii) the sum of the quotient values of all such radionuclides in that waste, as determined by the table 4 summation rule, is less than or equal to one, or
- (b) aqueous radioactive waste described in column 1 of table 3 where—
  - (i) the quantity or concentration level of any radionuclide which the waste contains does not exceed the value specified in column 2 of that table adjacent to the type of waste; and
  - (ii) the quantity of the waste or, as applicable, the quantity of any radionuclide which that waste contains, does not exceed the value specified in column 3 of that table adjacent to the type of waste during the period stated in that column,

but not such waste which has been subject to a process of dilution intended to ensure that paragraph (a) or (b) is met.

### **Conditions in respect of aqueous radioactive waste**

**18.**—(1) Subject to article 18(2), a person to whom article 16 applies must—

- (a) not dispose of more than a total of 3000m<sup>3</sup> of aqueous waste under the exemption in article 16 in any twelve month period;
- (b) keep an adequate record of the aqueous radioactive waste which the person disposes of on or from any premises;
- (c) dispose of the radioactive waste which satisfies article 17(a) by sending it from the premises where the disposal occurs using a pipeline;
- (d) dispose of the radioactive waste which satisfies article 17(b) from the premises where the disposal occurs by the route specified in column 4 of table 3; and
- (e) allow the chief inspector access to such records or such premises as the chief inspector may request in order to determine that the above conditions are complied with.

(2) Article 18(1)(b) and (c) does not apply where the aqueous radioactive waste is disposed of to a person who holds—

- (a) an authorisation under the Act to dispose of or accumulate that waste, or
- (b) an environmental permit to dispose of or accumulate waste in relation to the disposal or accumulation of that waste.

### **Scope of exemption**

**19.**—(1) Paragraph (2) applies to a person (“A”) who has an authorisation under section 13 of the Act (disposal of radioactive waste).

(2) Article 16 does not apply to A where the authorisation of A applies to aqueous radioactive waste in respect of which the value in article 17(a) or (b) is exceeded.

## **PART 6**

### **Exemption from authorisation under section 13: gaseous waste**

#### **Exemption from authorisation under section 13: gaseous waste**

**20.**—(1) Subject to article 20(2), a person is exempt from authorisation under section 13 of the Act (disposal of radioactive waste) in respect of gaseous radioactive waste which arises from a process which is applied to solid or liquid radioactive material described in article 5 or article 9 if where practicable, that person—

- (a) in respect of waste which arises in a building, causes the waste to be disposed of by an extraction system which removes the waste from the area where it arose and which vents the waste into the atmosphere;
- (b) prevents the entry or, where (a) applies, the re-entry, of the waste into a building.

(2) Article 20(1) does not apply where the main purpose of the process applied to the solid or liquid material is the generation of the gaseous radioactive waste.

## **PART 7**

### **Exemption from authorisation under section 13: NORM waste**

#### **Exemption from authorisation under section 13 for NORM waste**

**21.** Subject to article 24, a person is exempt from authorisation under section 13 of the Act (disposal of radioactive waste) in respect of—



- (a) NORM waste described in article 22(1) where—
  - (i) that person complies with article 14; and
  - (ii) the NORM waste is disposed of to the standard disposal route, except where the NORM waste is disposed of to a person who holds—
    - (aa) an authorisation under the Act to dispose of or accumulate that waste, or
    - (bb) an environmental permit to dispose of or accumulate waste in relation to the disposal or accumulation of that waste;
- (b) NORM waste described in article 22(2) where—
  - (i) that person complies with the conditions in articles 14 and 23; and
  - (ii) the NORM waste is disposed of in to the standard disposal route, except where the NORM waste is disposed of to a person who holds—
    - (aa) an authorisation under the Act to dispose of or accumulate that waste, or
    - (bb) an environmental permit to dispose of or accumulate waste in relation to the disposal or accumulation of that waste.

### **NORM waste**

**22.—**(1) The NORM waste referred to in article 21(a) means NORM waste where—

- (a) the sum of the concentration levels of the single radionuclide with the highest concentration in each of the natural decay chains beginning with—
  - (i) U-238;
  - (ii) U-235; and
  - (iii) Th-232,
 contained in that waste does not exceed 5 Bq/g; and
- (b) the product of A and B does not exceed  $5 \times 10^4$  where—
  - (i) “A” means the total quantity of a NORM waste that satisfies sub-paragraph (a) disposed of per year in metric tonnes; and
  - (ii) “B” means the actual sum of the concentration levels in Bq/g of radionuclides contained within that waste calculated in accordance with sub-paragraph (a).

(2) The NORM waste referred to in article 21(b) means NORM waste where—

- (a) the sum of the concentration levels of the radionuclides contained in that waste calculated in accordance with article 22(1)(a) exceeds 5 Bq/g but does not exceed 10 Bq/g; or
- (b) the sum of the concentration levels of the radionuclides contained in that waste calculated in accordance with article 22(1)(a) does not exceed 5 Bq/g but article 22(1)(b) is not satisfied.

### **Conditions in respect of NORM waste to which article 21(b) applies**

**23.** A person to whom article 21(b) applies—

- (a) must make a written radiological assessment of the reasonably foreseeable pathways for the exposure of workers and the public to radiation in respect of the place where the waste is disposed of;
- (b) must be satisfied that the assessment demonstrates that radiation doses are not expected to exceed—
  - (i) 1mSv a year to workers at the place of disposal; and
  - (ii) 300 $\mu$ Sv a year to the public;
- (c) must provide that assessment to the chief inspector at least 28 days before the first disposal is made; and

- (d) must not dispose of that waste if an objection is made in writing by the chief inspector to that assessment.

### **Scope of exemption**

**24.**—(1) Paragraphs (2) and (3) apply to a person (“A”) who has an authorisation under section 13 of the Act (disposal of radioactive waste).

(2) Article 21(a) does not apply to A where the authorisation of A applies to NORM waste in respect of which—

- (a) article 22(1)(a) is not satisfied; or
- (b) article 22(1)(a) is satisfied but article 22(1)(b) is not satisfied.

(3) Article 21 does not apply to A where the authorisation of A applies to NORM waste in respect of which the sum of the concentration levels of the radionuclides contained in that waste calculated in accordance with article 22(1)(a) exceeds 10 Bq/g.

## **PART 8**

### **Exemption from authorisation under section 14**

#### **Exemption from authorisation under section 14**

**25.** A person is exempt from authorisation under section 14 of the Act (accumulation of radioactive waste) in respect of—

- (a) subject to article 28, radioactive waste in article 26, where that person complies with the conditions in article 27;
- (b) radioactive waste stored in transit, where that person complies with the conditions in article 29.

#### **Radioactive waste and exemption from authorisation under section 14**

**26.**—(1) Radioactive waste referred to in article 25(a) means any of the following radioactive waste—

- (a) subject to paragraph (2), waste where—
  - (i) the quantity of any radionuclide listed in column 1 of table 1 in that waste together with any radioactive material on the premises where the waste is accumulated does not exceed the value specified in column 2 of that table adjacent to that radionuclide; and
  - (ii) the sum of the quotient values of all such radionuclides in that waste and material, as determined by the table 1 first summation rule, is less than or equal to one;
- (b) subject to paragraph (2), waste where—
  - (i) the concentration of any radionuclide listed in column 1 of table 1 in that waste together with any radioactive material on the premises where the waste is accumulated does not exceed the value specified in column 3 of that table; and
  - (ii) the sum of the quotient values of all such radionuclides in that waste and material, as determined by the table 1 second summation rule, is less than or equal to one;
- (c) waste described in column 1 of table 2 where the quantity of radionuclides—
  - (i) in any item of that waste does not exceed the value specified in column 2 of that table; and
  - (ii) in items of that waste, together with any items of the same class which are radioactive material, on the premises where it is accumulated does not exceed the value specified in column 3 of that table;

- (d) waste which arises from the use of radioactive material for medical or veterinary diagnosis or treatment or clinical or veterinary trials which is not a sealed source where the quantity of radionuclides in that waste, together with the quantity of radionuclides in radioactive material that meets the descriptions in both article 5(d)(i) and (ii) on the premises where the waste is accumulated does not exceed—
  - (i) in respect of Tc-99m in that waste and material,  $1 \times 10^9$  Bq; and
  - (ii) in respect of any other radionuclides in that waste and material,  $1 \times 10^8$  Bq in total;
- (e) NORM waste where the sum of the concentration levels of the radionuclides contained in that waste calculated in accordance with article 22(1)(a) does not exceed 10 Bq/g.

(2) Items listed in column 1 of table 2 are not considered radioactive material or radioactive waste for the purposes of paragraph (1)(a) or (b).

### **Conditions in respect of the accumulation of radioactive waste**

**27.**—(1) Subject to paragraph (2), a person to whom article 25(a) applies must—

- (a) keep an adequate record of the radioactive waste which the person accumulates;
- (b) ensure that where practicable the radioactive waste or the container of such waste is marked or labelled as radioactive waste;
- (c) except where (d) applies, dispose of the radioactive waste as soon as practicable after it has become waste;
- (d) dispose of a sealed source, a tritium foil source or an electrodeposited source within 26 weeks of it becoming waste unless the chief inspector advises in writing that a longer period of accumulation may take place;
- (e) store safely and securely the radioactive waste to prevent, so far as practicable—
  - (i) accidental removal, loss or theft from the premises where the person accumulates it; or
  - (ii) loss of containment;
- (f) in respect of an incident of loss or theft, or suspected loss or theft, of the radioactive waste, notify the incident to the chief inspector as soon as practicable;
- (g) where any loss of containment takes place or is suspected to have taken place, notify the incident to the chief inspector as soon as practicable;
- (h) allow the chief inspector access to such records or such premises as the chief inspector may request in order to determine that the above conditions are complied with; and
- (i) not bring any mobile radioactive apparatus onto any premises where this would cause the value specified in column 3 of table 2 to be exceeded in respect of the combined quantities of radionuclides in the sum of—
  - (i) items of radioactive material described in column 1 of table 2 which are kept or used on the premises but which are not mobile radioactive apparatus;
  - (ii) items of radioactive waste described in column 1 of table 2 which are accumulated on the premises; and
  - (iii) items of that material which are mobile radioactive apparatus and which are on the premises.

(2) Paragraph (1) does not apply to a person who receives radioactive waste for accumulation where in respect of the premises on which the accumulation takes place, that person manages, treats or disposes of substantial quantities of waste which is not radioactive.

### **Scope of exemption**

**28.**—(1) Paragraph (2) applies to a person (“A”) who has an authorisation under section 14 of the Act (accumulation of radioactive waste).

(2) Article 25(a) does not apply to A where the authorisation of A applies—

- (a) to radioactive waste in respect of which the value in article 26(a), (b) or (c) is exceeded;
- (b) to NORM waste in respect of which the value in article 26(d) is exceeded.

## PART 9

### Stored in transit

#### **Conditions in respect of radioactive material or radioactive waste stored in transit**

**29.** A person to whom article 4(b), 8(b) or 25(b) applies must, in respect of the radioactive material or radioactive waste stored in transit,—

- (a) in respect of material or waste which is contained in a package or container, not remove the material or waste from the package or container;
- (b) in respect of an incident of loss or theft, or suspected loss or theft, of such material or waste, notify the incident to the chief inspector as soon as practicable;
- (c) where any loss of containment takes place or is suspected to have taken place such that it may increase—
  - (i) the dose of radiation to the public; or
  - (ii) the concentration of radionuclides in the environment,notify the incident to the chief inspector as soon as practicable; and
- (d) allow the chief inspector access to such records or such premises as the chief inspector may request in order to determine that the above conditions are being complied with.

## PART 10

### Transitional Provisions

#### **Previously exempt activity in relation to keeping or using radioactive material**

**30.—**(1) This article applies to a person (“A”) carrying on an activity at the relevant time in relation to radioactive material (the “continuing activity”) where—

- (a) the activity is described in section 6 of the Act (prohibition of use of radioactive material without registration); and
- (b) immediately before the relevant time that person was exempted from the duty to hold a registration granted under section 7 of the Act (registration of users of radioactive material) in relation to that activity under one of the Orders listed in Schedule 2 to this Order.

(2) In relation to the continuing activity, the exemption described in paragraph (1)(b) continues to have effect in relation to A, subject to any conditions specified in the Order in which that exemption is contained, until the date calculated in accordance with paragraph (3).

(3) The date referred to in paragraph (2) is—

- (a) where, in relation to the continuing activity, A does not become exempted under article 4 of this Order from the duty to hold a registration before the date that is 6 months after the relevant time—
  - (i) where A applies for a registration under section 7 of the Act in relation to that activity before the date that is 6 months after the relevant time—
    - (aa) if the application is granted, the date of grant;
    - (bb) if the application is refused and A appeals against the refusal under section 26 of the Act (registrations, authorisations and notices: appeals from decisions of appropriate agency), the date on which the appeal is determined or withdrawn;

- (cc) if the application is refused, and A is entitled to appeal against the refusal in accordance with section 26 of the Act, but does not do so, the date which is the day after the last day on which an appeal could have been brought, determined in accordance with the appeals regulations; or
- (dd) if the application is refused, and A is not entitled to appeal against the refusal in accordance with section 26 of the Act, the date of the refusal; or
- (ii) where A does not so apply, the earlier of—
  - (aa) the day that is 6 months after the relevant time; or
  - (bb) the day on which A ceases to carry out the activity;
- (b) where A does become so exempted under that article before the date that is 6 months after the relevant time, the day on which A first becomes so exempted.
- (4) Where A,—
  - (a) at the relevant time, holds a registration under section 7 of the Act (registration of users of radioactive material) covering radioactive material which is not described in paragraph (1); and
  - (b) in relation to the continuing activity, applies for a variation of that registration instead of applying for a new registration,

then paragraph (3) applies to A in relation to the calculation of the duration of the exemption, but with references in that paragraph to an application for a variation of a registration under section 12 of the Act (cancellation and variation of registrations) substituted for references to an application for a registration under section 7 of the Act.

#### **Previously exempt activity in relation to mobile radioactive apparatus**

**31.—**(1) This article applies to a person (“A”) carrying on an activity at the relevant time in relation to mobile radioactive apparatus (the “continuing activity”) where—

- (a) the activity is described in section 9 of the Act (prohibition of use of mobile radioactive apparatus without registration); and
- (b) immediately before the relevant time that person was exempted from the duty to hold a registration granted under section 10 of the Act (registration of mobile radioactive apparatus) in relation to that activity under one of the Orders listed in Schedule 2 to this Order.

(2) In relation to the continuing activity the exemption described in paragraph (1)(b) continues to have effect in relation to A, subject to any conditions specified in the Order in which that exemption is contained, until the date calculated in accordance with paragraph (3).

(3) The date referred to in paragraph (2) is—

- (a) where, in relation to the continuing activity, A does not become exempted under article 8 of this Order from the duty to hold a registration before the date that is 6 months after the relevant time—
  - (i) where A applies for a registration under section 10 of the Act in relation to that activity before the date that is 6 months after the relevant time—
    - (aa) if the application is granted, the date of grant;
    - (bb) if the application is refused and A appeals against the refusal under section 26 of the Act (registrations, authorisations and notices: appeals from decisions of appropriate agency), the date on which the appeal is determined or withdrawn;
  - (cc) if the application is refused, and A is entitled to appeal against the refusal in accordance with section 26 of the Act, but does not do so, the date which is the day after the last day on which an appeal could have been brought, determined in accordance with the appeals regulations; or
  - (dd) if the application is refused, and A is not entitled to appeal against the refusal in accordance with section 26 of the Act, the date of the refusal; or

- (ii) where A does not so apply, the earlier of—
    - (aa) the day that is 6 months after the relevant time; or
    - (bb) the day on which A ceases to carry out the activity;
  - (b) where A does become so exempted under that article before the date that is 6 months after the relevant time, the day on which A first becomes so exempted.
- (4) Where A,—
- (a) at the relevant time, holds a registration under section 10 of the Act (registration of users of radioactive material) covering radioactive material which is not described in paragraph (1); and
  - (b) in relation to the continuing activity, applies for a variation of that registration instead of applying for a new registration,

then paragraph (3) applies to A in relation to the calculation of the duration of the exemption, but with references in that paragraph to an application for a variation of a registration under section 12 of the Act (cancellation and variation of registrations) substituted for references to an application for a registration under section 10 of the Act.

### **Previously excluded activity in relation to disposal of radioactive waste**

**32.—**(1) This article applies to a person (“A”) carrying on an activity at the relevant time in relation to radioactive waste (the “continuing activity”) where—

- (a) the activity is described in section 13 of the Act (disposal of radioactive waste); and
- (b) immediately before the relevant time that person was excluded from the duty to hold an authorisation granted under that section in relation to that activity under one of the Orders listed in Schedule 2 to this Order.

(2) In relation to the continuing activity the exemption described in paragraph (1)(b) continues to have effect in relation to A, subject to any conditions specified in the Order in which that exemption is contained, until the date calculated in accordance with paragraph (3).

(3) The date referred to in paragraph (2) is—

- (a) where, in relation to the continuing activity, A does not become exempted under article 12, 16, 20 or 21 of this Order from the duty to hold an authorisation before the date that is 6 months after the relevant time—
  - (i) where A applies for an authorisation under section 13 of the Act in relation to that activity before the date that is 6 months after the relevant time—
    - (aa) if the application is granted, the date of grant;
    - (bb) if the application is refused and A appeals against the refusal under section 26 of the Act (registrations, authorisations and notices: appeals from decisions of appropriate agency), the date on which the appeal is determined or withdrawn;
    - (cc) if the application is refused, and A is entitled to appeal against the refusal in accordance with section 26 of the Act, but does not do so, the date which is the day after the last day on which an appeal could have been brought, determined in accordance with the appeals regulations; or
    - (dd) if the application is refused, and A is not entitled to appeal against the refusal in accordance with section 26 of the Act, the date of the refusal; or
  - (ii) where A does not so apply, the earlier of—
    - (aa) the day that is 6 months after the relevant time; or
    - (bb) the day on which A ceases to carry out the activity;
- (b) where A does become so exempted under that article before the date that is 6 months after the relevant time, the day on which A first becomes so exempted.

(4) Where A,—

- (a) at the relevant time, holds an authorisation under section 13 of the Act covering radioactive waste which is not described in paragraph (1); and
- (b) in relation to the continuing activity, applies for a variation of that registration instead of applying for a new registration,

then paragraph (3) applies to A in relation to the calculation of the duration of the exemption, but with references in that paragraph to an application for a variation of a registration under section 17 of the Act (revocation and variation of authorisations) substituted for references to an application for an authorisation under section 13 of the Act.

### **Previously excluded activity in relation to accumulation of radioactive waste**

**33.—**(1) This article applies to a person (“A”) carrying on an activity at the relevant time in relation to radioactive waste (the “continuing activity”) where—

- (a) the activity is described in section 14 of the Act (accumulation of radioactive waste); and
- (b) immediately before the relevant time that person was excluded from the duty to hold an authorisation granted under that section in relation to that activity under one of the Orders listed in Schedule 2 to this Order.

(2) In relation to the continuing activity the exemption described in paragraph (1)(b) continues to have effect in relation to A, subject to any conditions specified in the Order in which that exemption is contained, until the date calculated in accordance with paragraph (3).

(3) The date referred to in paragraph (2) is—

- (a) where, in relation to the continuing activity, A does not become exempted under article 25 of this Order from the duty to hold an authorisation before the date that is 6 months after the relevant time—
  - (i) where A applies for an authorisation under section 14 of the Act in relation to that activity before the date that is 6 months after the relevant time—
    - (aa) if the application is granted, the date of grant;
    - (bb) if the application is refused and A appeals against the refusal under section 26 of the Act (registrations, authorisations and notices: appeals from decisions of appropriate agency), the date on which the appeal is determined or withdrawn;
    - (cc) if the application is refused, and A is entitled to appeal against the refusal in accordance with section 26 of the Act, but does not do so, the date which is the day after the last day on which an appeal could have been brought, determined in accordance with the appeals regulations; or
    - (dd) if the application is refused, and A is not entitled to appeal against the refusal in accordance with section 26 of the Act, the date of the refusal; or
  - (ii) where A does not so apply, the earlier of—
    - (aa) the day that is 6 months after the relevant time; or
    - (bb) the day on which A ceases to carry out the activity;
- (b) where A does become so exempted under that article before the date that is 6 months after the relevant time, the day on which A first becomes so exempted.

(4) Where A,—

- (a) at the relevant time, holds an authorisation under section 14 of the Act covering radioactive waste which is not described in paragraph (1); and
- (b) in relation to the continuing activity, applies for a variation of that registration instead of applying for a new registration,

then paragraph (3) applies to A in relation to the calculation of the duration of the exemption, but with references in that paragraph to an application for a variation of a registration under section 17 of the Act (revocation and variation of authorisations) substituted for references to an application for an authorisation under section 14 of the Act.

## PART 11

### Revocation and savings

#### Revocation

34. The instruments in Schedule 2 are revoked on xx yyy 2011.

#### Savings

35. Despite their revocation the instruments in Schedule 2 (except the Radioactive Substances (Clocks and Watches) (England and Wales) Regulations 2001<sup>(a)</sup>), continue in force for the purposes of, and to the extent provided by, Part 10 of this Order.

Date

*Name*  
[Minister's title]  
[Department]

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(a) S.I. 2001/4005.



## SCHEDULE 1

Article 3

### Tables of radionuclides and descriptions of radioactive material and radioactive waste

**Table 1**

**Radionuclides: values of quantities and concentrations**

<i>Radionuclides</i>	<i>Maximum quantity (Bq) on any premises</i>	<i>Maximum concentration (Bq/g)</i>
H-3	10 <sup>9</sup>	10 <sup>6</sup>
Be-7	10 <sup>7</sup>	10 <sup>3</sup>
C-14	10 <sup>7</sup>	10 <sup>4</sup>
O-15	10 <sup>9</sup>	10 <sup>2</sup>
F-18	10 <sup>6</sup>	10
Na-22	10 <sup>6</sup>	10
Na-24	10 <sup>5</sup>	10
Si-31	10 <sup>6</sup>	10 <sup>3</sup>
P-32	10 <sup>5</sup>	10 <sup>3</sup>
P-33	10 <sup>8</sup>	10 <sup>5</sup>
S-35	10 <sup>8</sup>	10 <sup>5</sup>
Cl-36	10 <sup>6</sup>	10 <sup>4</sup>
Cl-38	10 <sup>5</sup>	10
Ar-37	10 <sup>8</sup>	10 <sup>6</sup>
Ar-41	10 <sup>9</sup>	10 <sup>2</sup>
K-42	10 <sup>6</sup>	10 <sup>2</sup>
K-43	10 <sup>6</sup>	10
Ca-45	10 <sup>7</sup>	10 <sup>4</sup>
Ca-47	10 <sup>6</sup>	10
Sc-46	10 <sup>6</sup>	10
Sc-47	10 <sup>6</sup>	10 <sup>2</sup>
Sc-48	10 <sup>5</sup>	10
V-48	10 <sup>5</sup>	10
Cr-51	10 <sup>7</sup>	10 <sup>3</sup>
Mn-51	10 <sup>5</sup>	10
Mn-52	10 <sup>5</sup>	10
Mn-52m	10 <sup>5</sup>	10
Mn-53	10 <sup>9</sup>	10 <sup>4</sup>
Mn-54	10 <sup>6</sup>	10
Mn-56	10 <sup>5</sup>	10
Fe-52	10 <sup>6</sup>	10
Fe-55	10 <sup>6</sup>	10 <sup>4</sup>
Fe-59	10 <sup>6</sup>	10
Co-55	10 <sup>6</sup>	10
Co-56	10 <sup>5</sup>	10
Co-57	10 <sup>6</sup>	10 <sup>2</sup>
Co-58	10 <sup>6</sup>	10
Co-58m	10 <sup>7</sup>	10 <sup>4</sup>

<i>Radionuclides</i>	<i>Maximum quantity (Bq) on any premises</i>	<i>Maximum concentration (Bq/g)</i>
Co-60	10 <sup>5</sup>	10
Co-60m	10 <sup>6</sup>	10 <sup>3</sup>
Co-61	10 <sup>6</sup>	10 <sup>2</sup>
Co-62m	10 <sup>5</sup>	10
Ni-59	10 <sup>8</sup>	10 <sup>4</sup>
Ni-63	10 <sup>8</sup>	10 <sup>5</sup>
Ni-65	10 <sup>6</sup>	10
Cu-64	10 <sup>6</sup>	10 <sup>2</sup>
Zn-65	10 <sup>6</sup>	10
Zn-69	10 <sup>6</sup>	10 <sup>4</sup>
Zn-69m	10 <sup>6</sup>	10 <sup>2</sup>
Ga-72	10 <sup>5</sup>	10
Ge-71	10 <sup>8</sup>	10 <sup>4</sup>
As-73	10 <sup>7</sup>	10 <sup>3</sup>
As-74	10 <sup>6</sup>	10
As-76	10 <sup>5</sup>	10 <sup>2</sup>
As-77	10 <sup>6</sup>	10 <sup>3</sup>
Se-75	10 <sup>6</sup>	10 <sup>2</sup>
Br-82	10 <sup>6</sup>	10
Kr-74	10 <sup>9</sup>	10 <sup>2</sup>
Kr-76	10 <sup>9</sup>	10 <sup>2</sup>
Kr-77	10 <sup>9</sup>	10 <sup>2</sup>
Kr-79	10 <sup>5</sup>	10 <sup>3</sup>
Kr-81	10 <sup>7</sup>	10 <sup>4</sup>
Kr-83m	10 <sup>12</sup>	10 <sup>5</sup>
Kr-85	10 <sup>4</sup>	10 <sup>5</sup>
Kr-85m	10 <sup>10</sup>	10 <sup>3</sup>
Kr-87	10 <sup>9</sup>	10 <sup>2</sup>
Kr-88	10 <sup>9</sup>	10 <sup>2</sup>
Rb-86	10 <sup>5</sup>	10 <sup>2</sup>
Sr-85	10 <sup>6</sup>	10 <sup>2</sup>
Sr-85m	10 <sup>7</sup>	10 <sup>2</sup>
Sr-87m	10 <sup>6</sup>	10 <sup>2</sup>
Sr-89	10 <sup>6</sup>	10 <sup>3</sup>
Sr-90+ (including Y-90)	10 <sup>4</sup>	10 <sup>2</sup>
Sr-91	10 <sup>5</sup>	10
Sr-92	10 <sup>6</sup>	10
Y-90	10 <sup>5</sup>	10 <sup>3</sup>
Y-91	10 <sup>6</sup>	10 <sup>3</sup>
Y-91m	10 <sup>6</sup>	10 <sup>2</sup>
Y-92	10 <sup>5</sup>	10 <sup>2</sup>
Y-93	10 <sup>5</sup>	10 <sup>2</sup>
Zr-93+ (including Nb-93m)	10 <sup>7</sup>	10 <sup>3</sup>
Zr-95	10 <sup>6</sup>	10
Zr-97+ (including Nb-97)	10 <sup>5</sup>	10

<i>Radionuclides</i>	<i>Maximum quantity (Bq) on any premises</i>	<i>Maximum concentration (Bq/g)</i>
Nb-93m	10 <sup>7</sup>	10 <sup>4</sup>
Nb-94	10 <sup>6</sup>	10
Nb-95	10 <sup>6</sup>	10
Nb-97	10 <sup>6</sup>	10
Nb-98	10 <sup>5</sup>	10
Mo-90	10 <sup>6</sup>	10
Mo-93	10 <sup>8</sup>	10 <sup>3</sup>
Mo-99	10 <sup>6</sup>	10 <sup>2</sup>
Mo-101	10 <sup>6</sup>	10
Tc-96	10 <sup>6</sup>	10
Tc-96m	10 <sup>7</sup>	10 <sup>3</sup>
Tc-97	10 <sup>8</sup>	10 <sup>3</sup>
Tc-97m	10 <sup>7</sup>	10 <sup>3</sup>
Tc-99	10 <sup>7</sup>	10 <sup>4</sup>
Tc-99m	10 <sup>7</sup>	10 <sup>2</sup>
Ru-97	10 <sup>7</sup>	10 <sup>2</sup>
Ru-103	10 <sup>6</sup>	10 <sup>2</sup>
Ru-105	10 <sup>6</sup>	10
Ru-106+ (including Rh-106)	10 <sup>5</sup>	10 <sup>2</sup>
Rh-103m	10 <sup>8</sup>	10 <sup>4</sup>
Rh-105	10 <sup>7</sup>	10 <sup>2</sup>
Pd-103	10 <sup>8</sup>	10 <sup>3</sup>
Pd-109	10 <sup>6</sup>	10 <sup>3</sup>
Ag-105	10 <sup>6</sup>	10 <sup>2</sup>
Ag-108m+ (including Ag-108)	10 <sup>6</sup>	10
Ag-110m	10 <sup>6</sup>	10
Ag-111	10 <sup>6</sup>	10 <sup>3</sup>
Cd-109	10 <sup>6</sup>	10 <sup>4</sup>
Cd-115	10 <sup>6</sup>	10 <sup>2</sup>
Cd-115m	10 <sup>6</sup>	10 <sup>3</sup>
In-111	10 <sup>6</sup>	10 <sup>2</sup>
In-113m	10 <sup>6</sup>	10 <sup>2</sup>
In-114m	10 <sup>6</sup>	10 <sup>2</sup>
In-115m	10 <sup>6</sup>	10 <sup>2</sup>
Sn-113	10 <sup>7</sup>	10 <sup>3</sup>
Sn-125	10 <sup>5</sup>	10 <sup>2</sup>
Sb-122	10 <sup>4</sup>	10 <sup>2</sup>
Sb-124	10 <sup>6</sup>	10
Sb-125	10 <sup>6</sup>	10 <sup>2</sup>
Te-123m	10 <sup>7</sup>	10 <sup>2</sup>
Te-125m	10 <sup>7</sup>	10 <sup>3</sup>
Te-127	10 <sup>6</sup>	10 <sup>3</sup>
Te-127m	10 <sup>7</sup>	10 <sup>3</sup>
Te-129	10 <sup>6</sup>	10 <sup>2</sup>
Te-129m	10 <sup>6</sup>	10 <sup>3</sup>
Te-131	10 <sup>5</sup>	10 <sup>2</sup>

<i>Radionuclides</i>	<i>Maximum quantity (Bq) on any premises</i>	<i>Maximum concentration (Bq/g)</i>
Te-131m	10 <sup>6</sup>	10
Te-132	10 <sup>7</sup>	10 <sup>2</sup>
Te-133	10 <sup>5</sup>	10
Te-133m	10 <sup>5</sup>	10
Te-134	10 <sup>6</sup>	10
I-123	10 <sup>7</sup>	10 <sup>2</sup>
I-125	10 <sup>6</sup>	10 <sup>3</sup>
I-126	10 <sup>6</sup>	10 <sup>2</sup>
I-129	10 <sup>5</sup>	10 <sup>2</sup>
I-130	10 <sup>6</sup>	10
I-131	10 <sup>6</sup>	10 <sup>2</sup>
I-132	10 <sup>5</sup>	10
I-133	10 <sup>6</sup>	10
I-134	10 <sup>5</sup>	10
I-135	10 <sup>6</sup>	10
Xe-131m	10 <sup>4</sup>	10 <sup>4</sup>
Xe-133	10 <sup>4</sup>	10 <sup>3</sup>
Xe-135	10 <sup>10</sup>	10 <sup>3</sup>
Cs-129	10 <sup>5</sup>	10 <sup>2</sup>
Cs-131	10 <sup>6</sup>	10 <sup>3</sup>
Cs-132	10 <sup>5</sup>	10
Cs-134m	10 <sup>5</sup>	10 <sup>3</sup>
Cs-134	10 <sup>4</sup>	10
Cs-135	10 <sup>7</sup>	10 <sup>4</sup>
Cs-136	10 <sup>5</sup>	10
Cs-137+ (including Ba-137)	10 <sup>4</sup>	10
Cs-138	10 <sup>4</sup>	10
Ba-131	10 <sup>6</sup>	10 <sup>2</sup>
Ba-140+ (including La-140)	10 <sup>5</sup>	10
La-140	10 <sup>5</sup>	10
Ce-139	10 <sup>6</sup>	10 <sup>2</sup>
Ce-141	10 <sup>7</sup>	10 <sup>2</sup>
Ce-143	10 <sup>6</sup>	10 <sup>2</sup>
Ce-144+ (including Pr-144)	10 <sup>5</sup>	10 <sup>2</sup>
Pr-142	10 <sup>5</sup>	10 <sup>2</sup>
Pr-143	10 <sup>6</sup>	10 <sup>4</sup>
Nd-147	10 <sup>6</sup>	10 <sup>2</sup>
Nd-149	10 <sup>6</sup>	10 <sup>2</sup>
Pm-147	10 <sup>7</sup>	10 <sup>4</sup>
Pm-149	10 <sup>6</sup>	10 <sup>3</sup>
Sm-151	10 <sup>8</sup>	10 <sup>4</sup>
Sm-153	10 <sup>6</sup>	10 <sup>2</sup>
Eu-152	10 <sup>6</sup>	10
Eu-152m	10 <sup>6</sup>	10 <sup>2</sup>
Eu-154	10 <sup>6</sup>	10

<i>Radionuclides</i>	<i>Maximum quantity (Bq) on any premises</i>	<i>Maximum concentration (Bq/g)</i>
Eu-155	10 <sup>7</sup>	10 <sup>2</sup>
Gd-153	10 <sup>7</sup>	10 <sup>2</sup>
Gd-159	10 <sup>6</sup>	10 <sup>3</sup>
Tb-160	10 <sup>6</sup>	10
Dy-165	10 <sup>6</sup>	10 <sup>3</sup>
Dy-166	10 <sup>6</sup>	10 <sup>3</sup>
Ho-166	10 <sup>5</sup>	10 <sup>3</sup>
Er-169	10 <sup>7</sup>	10 <sup>4</sup>
Er-171	10 <sup>6</sup>	10 <sup>2</sup>
Tm-170	10 <sup>6</sup>	10 <sup>3</sup>
Tm-171	10 <sup>8</sup>	10 <sup>4</sup>
Yb-175	10 <sup>7</sup>	10 <sup>3</sup>
Lu-177	10 <sup>7</sup>	10 <sup>3</sup>
Hf-181	10 <sup>6</sup>	10
Ta-182	10 <sup>4</sup>	10
W-181	10 <sup>7</sup>	10 <sup>3</sup>
W-185	10 <sup>7</sup>	10 <sup>4</sup>
W-187	10 <sup>6</sup>	10 <sup>2</sup>
Re-186	10 <sup>6</sup>	10 <sup>3</sup>
Re-188	10 <sup>5</sup>	10 <sup>2</sup>
Os-185	10 <sup>6</sup>	10
Os-191	10 <sup>7</sup>	10 <sup>2</sup>
Os-191m	10 <sup>7</sup>	10 <sup>3</sup>
Os-193	10 <sup>6</sup>	10 <sup>2</sup>
Ir-190	10 <sup>6</sup>	10
Ir-192	10 <sup>4</sup>	10
Ir-194	10 <sup>5</sup>	10 <sup>2</sup>
Pt-191	10 <sup>6</sup>	10 <sup>2</sup>
Pt-193m	10 <sup>7</sup>	10 <sup>3</sup>
Pt-197	10 <sup>6</sup>	10 <sup>3</sup>
Pt-197m	10 <sup>6</sup>	10 <sup>2</sup>
Au-198	10 <sup>6</sup>	10 <sup>2</sup>
Au-199	10 <sup>6</sup>	10 <sup>2</sup>
Hg-197	10 <sup>7</sup>	10 <sup>2</sup>
Hg-197m	10 <sup>6</sup>	10 <sup>2</sup>
Hg-203	10 <sup>5</sup>	10 <sup>2</sup>
Tl-200	10 <sup>6</sup>	10
Tl-201	10 <sup>6</sup>	10 <sup>2</sup>
Tl-202	10 <sup>6</sup>	10 <sup>2</sup>
Tl-204	10 <sup>4</sup>	10 <sup>4</sup>
Pb-203	10 <sup>6</sup>	10 <sup>2</sup>
Pb-210+ (including Bi-210, Po-210)	10 <sup>4</sup>	10
Pb-212+ (including Bi-212, Tl-208, Po-212)	10 <sup>5</sup>	10
Bi-206	10 <sup>5</sup>	10
Bi-207	10 <sup>6</sup>	10
Bi-210	10 <sup>6</sup>	10 <sup>3</sup>

<i>Radionuclides</i>	<i>Maximum quantity (Bq) on any premises</i>	<i>Maximum concentration (Bq/g)</i>
Bi-212+ (including Tl-208, Po-212)	10 <sup>5</sup>	10
Po-203	10 <sup>6</sup>	10
Po-205	10 <sup>6</sup>	10
Po-207	10 <sup>6</sup>	10
Po-210	10 <sup>4</sup>	10
At-211	10 <sup>7</sup>	10 <sup>3</sup>
Rn-220+ (including Po-216)	10 <sup>7</sup>	10 <sup>4</sup>
Rn-222+ (including Po-218, Pb-214, Bi-214, Po-214)	10 <sup>8</sup>	10
Ra-223+ (including Rn-219, Po-215, Pb-211, Bi-211, Tl-207)	10 <sup>5</sup>	10 <sup>2</sup>
Ra-224+ (including Rn-220, Po-216, Pb-212, Bi-212, Tl-208, Po-212)	10 <sup>5</sup>	10
Ra-225	10 <sup>5</sup>	10 <sup>2</sup>
Ra-226+ (including Rn-222, Po-218, Pb-214, Bi-214, Pb-210, Bi-210, Po-210, Po-214)	10 <sup>4</sup>	10
Ra-227	10 <sup>6</sup>	10 <sup>2</sup>
Ra-228+ (including Ac-228)	10 <sup>5</sup>	10
Ac-228	10 <sup>6</sup>	10
Th-226+ (including Ra-222, Rn-218, Po-214)	10 <sup>7</sup>	10 <sup>3</sup>
Th-227	10 <sup>4</sup>	10
Th-228+ (including Ra-224, Rn-220, Po-216, Pb- 212, Bi-212, Po-212, Tl-208)	10 <sup>4</sup>	1
Th-229+ (including Ra-225, Ac-225, Fr-221, At-217, Bi-213, Po-213, Pb-209)	10 <sup>3</sup>	1
Th-230	10 <sup>4</sup>	1
Th-231	10 <sup>7</sup>	10 <sup>3</sup>
Th-232 sec (including Ra-228, Ac-228, Th-228, Ra- 224, Rn-220, Po-216, Pb-212, Bi-212, Po- 212, Tl-208)	10 <sup>3</sup>	1
Th-234+ (including Pa-234m)	10 <sup>5</sup>	10 <sup>3</sup>
Pa-230	10 <sup>6</sup>	10
Pa-231	10 <sup>3</sup>	1
Pa-233	10 <sup>7</sup>	10 <sup>2</sup>
U-230+ (including Th-226, Ra-222, Rn-218, Po- 214)	10 <sup>5</sup>	10
U-231	10 <sup>7</sup>	10 <sup>2</sup>

<i>Radionuclides</i>	<i>Maximum quantity (Bq) on any premises</i>	<i>Maximum concentration (Bq/g)</i>
U-232+ (including Th-228, Ra-224, Rn-220, Po-216, Pb-212, Bi-212, Tl-208, Po-212)	10 <sup>3</sup>	1
U-233	10 <sup>4</sup>	10
U-234	10 <sup>4</sup>	10
U-235+ (including Th-231)	10 <sup>4</sup>	10
U-236	10 <sup>4</sup>	10
U-237	10 <sup>6</sup>	10 <sup>2</sup>
U-238+ (including Th-234, Pa-234m)	10 <sup>4</sup>	10
U-238 sec (including Th-234, Pa-234m, U-234, Th-230, Ra-226, Rn-222, Po-218, Pb-214, Bi-214, Pb-210, Bi-210, Po-210, Po-214)	10 <sup>3</sup>	1
U-239	10 <sup>6</sup>	10 <sup>2</sup>
U-240	10 <sup>7</sup>	10 <sup>3</sup>
U-240+ (including Np-240)	10 <sup>6</sup>	10
Np-237+ (including Pa-233)	10 <sup>3</sup>	1
Np-239	10 <sup>7</sup>	10 <sup>2</sup>
Np-240	10 <sup>6</sup>	10
Pu-234	10 <sup>7</sup>	10 <sup>2</sup>
Pu-235	10 <sup>7</sup>	10 <sup>2</sup>
Pu-236	10 <sup>4</sup>	10
Pu-237	10 <sup>7</sup>	10 <sup>3</sup>
Pu-238	10 <sup>4</sup>	1
Pu-239	10 <sup>4</sup>	1
Pu-240	10 <sup>3</sup>	1
Pu-241	10 <sup>5</sup>	10 <sup>2</sup>
Pu-242	10 <sup>4</sup>	1
Pu-243	10 <sup>7</sup>	10 <sup>3</sup>
Pu-244	10 <sup>4</sup>	1
Am-241	10 <sup>4</sup>	1
Am-242	10 <sup>6</sup>	10 <sup>3</sup>
Am-242m+ (including Am-242)	10 <sup>4</sup>	1
Am-243+ (including Np-239)	10 <sup>3</sup>	1
Cm-242	10 <sup>5</sup>	10 <sup>2</sup>
Cm-243	10 <sup>4</sup>	1
Cm-244	10 <sup>4</sup>	10
Cm-245	10 <sup>3</sup>	1
Cm-246	10 <sup>3</sup>	1
Cm-247	10 <sup>4</sup>	1
Cm-248	10 <sup>3</sup>	1
Bk-249	10 <sup>6</sup>	10 <sup>3</sup>
Cf-246	10 <sup>6</sup>	10 <sup>3</sup>

<i>Radionuclides</i>	<i>Maximum quantity (Bq) on any premises</i>	<i>Maximum concentration (Bq/g)</i>
Cf-248	10 <sup>4</sup>	10
Cf-249	10 <sup>3</sup>	1
Cf-250	10 <sup>4</sup>	10
Cf-251	10 <sup>3</sup>	1
Cf-252	10 <sup>4</sup>	10
Cf-253	10 <sup>5</sup>	10 <sup>2</sup>
Cf-254	10 <sup>3</sup>	1
Es-253	10 <sup>5</sup>	10 <sup>2</sup>
Es-254	10 <sup>4</sup>	10
Es-254m	10 <sup>6</sup>	10 <sup>2</sup>
Fm-254	10 <sup>7</sup>	10 <sup>4</sup>
Fm-255	10 <sup>6</sup>	10 <sup>3</sup>
Any radionuclide not listed above	10 <sup>3</sup>	1

1. “The table 1 first summation rule” means the sum of the quotient A/B where—
  - (a) “A” means the quantity of each radionuclide listed in column 1 of table 1 that is present in the substance or article; and
  - (b) “B” means the quantity of that radionuclide specified in column 2 of table 1.
2. “The table 1 second summation rule” means the sum of the quotient C/D where—
  - (a) “C” means the concentration of each radionuclide listed in column 1 of table 1 that is present in the substance or article; and
  - (b) “D” means the concentration of that radionuclide specified in column 3 of table 1.

**Table 2**

**Radioactive material and accumulated radioactive waste: values of maximum quantities**

<i>Radioactive material or accumulated radioactive waste</i>	<i>Maximum quantity of radionuclides for each item of material</i>	<i>Maximum quantity of radionuclides in items of that material on any premises or held by a person where the material is or is a part of a mobile radioactive apparatus</i>
A sealed source	4x10 <sup>5</sup> Bq of alpha activity or 4x10 <sup>6</sup> Bq of other activity	$\sum \text{Bq alpha}/2 \times 10^7 + \text{Bq other} / 2 \times 10^8 \leq 1$
A Class A gaseous tritium lighting device	2x10 <sup>10</sup> Bq	5x10 <sup>12</sup> Bq
A Class B gaseous tritium lighting device	1x10 <sup>12</sup> Bq	3x10 <sup>13</sup> Bq
A Class C gaseous tritium lighting device	1x10 <sup>12</sup> Bq	No limit
Any sealed source containing solely tritium as the radioactive component	2x10 <sup>10</sup> Bq	5x10 <sup>12</sup> Bq
A tritium foil source	2x10 <sup>10</sup> Bq	5x10 <sup>12</sup> Bq
A smoke detector affixed to premises	4x10 <sup>6</sup> Bq	No limit
An electrodeposited source	6x10 <sup>8</sup> Bq Ni-63 or 2x10 <sup>8</sup> Bq Fe-55	6x10 <sup>11</sup> Bq



<i>Radioactive material or accumulated radioactive waste</i>	<i>Maximum quantity of radionuclides for each item of material</i>	<i>Maximum quantity of radionuclides in items of that material on any premises or held by a person where the material is or is a part of a mobile radioactive apparatus</i>
A luminised article (unsealed source)	8x10 <sup>7</sup> Bq Pm-147 or 4x10 <sup>9</sup> Bq H-3	4x10 <sup>10</sup> Bq Pm-147 or 2x10 <sup>11</sup> Bq H-3
Radioactive material which is or contains magnesium alloy or thoriated tungsten	4% thorium by mass	No limit
Radioactive material which is or contains metallic uranium or thorium, or prepared compounds of uranium or thorium in which the uranium-235 concentration is no more than 0.72% in the case of uranium, and the thorium is in its isotopic proportions found in nature	Not applicable	5Kg uranium or thorium
A Ba-137m eluting source	4x10 <sup>4</sup> Bq Cs-137	4x10 <sup>5</sup> Bq Cs-137

**Table 3**

**Radioactive waste: values of quantities and concentrations and disposal routes**

<i>Radioactive waste</i>	<i>Maximum quantity or concentration of radionuclides</i>	<i>Maximum quantity of waste to be disposed of in the period stated</i>	<i>Disposal route</i>
Solid radioactive waste, with no single item > 4x10 <sup>4</sup> Bq	4x10 <sup>5</sup> Bq of all radionuclides (except tritium and C-14) per 0.1m <sup>3</sup>	2x10 <sup>8</sup> Bq/year	The standard disposal route
Solid radioactive waste containing tritium and C-14 only, with no single item > 4x10 <sup>5</sup> Bq	4x10 <sup>6</sup> Bq of tritium and C-14 per 0.1m <sup>3</sup>	2x10 <sup>9</sup> Bq/year	The standard disposal route
Individual sealed sources	2x10 <sup>5</sup> Bq of all radionuclides per 0.1m <sup>3</sup>	1x10 <sup>7</sup> Bq/year	The standard disposal route
Individual sealed sources containing only tritium as a radioactive component	2x10 <sup>10</sup> Bq of tritium per 0.1m <sup>3</sup>	1x10 <sup>13</sup> Bq/year	The standard disposal route
Luminised articles with no single item containing > 8x10 <sup>7</sup> Bq of Pm-147 or > 4x10 <sup>9</sup> of tritium	8x10 <sup>7</sup> Bq per 0.1m <sup>3</sup> of Pm-147 or 4x10 <sup>9</sup> for tritium per 0.1m <sup>3</sup>	2x10 <sup>9</sup> Bq/year of Pm-147 or 1x10 <sup>11</sup> Bq/year of tritium	The standard disposal route
Sealed sources (other than those listed in the rows above)	No limit	No limit	Only to a person lawfully entitled to receive them

<i>Radioactive waste</i>	<i>Maximum quantity or concentration of radionuclides</i>	<i>Maximum quantity of waste to be disposed of in the period stated</i>	<i>Disposal route</i>
Radioactive waste in aqueous solution being human excreta	No limit	$1 \times 10^{10}$ Bq/year Tc-99m and $5 \times 10^9$ Bq/year of all other radionuclides	To a sewer
Radioactive waste in aqueous solution	$1 \times 10^2$ Bq/ml	$1 \times 10^8$ Bq/year for the sum of the following radionuclides: H-3, C-11, C-14, F-18, P-32, P-33, S-35, Ca-45, Cr-51, Fe-55, Ga-67, Sr-89, Y-90, Tc-99m, In-111, I-123, I-125, I-131, Sm-153, Tl-201 and $1 \times 10^6$ Bq/year of all other radionuclides	To a sewer
Radioactive waste which consists of organic solutions and liquids containing only tritium and C-14	$1 \times 10^2$ Bq/ml	$1 \times 10^6$ Bq/year	By incineration
Radioactive waste which consists of magnesium alloy, thoriated tungsten or dross from hardener alloy	4% thorium by mass	No limit	The standard disposal route
Radioactive waste which is or contains uranium or thorium or prepared compounds of uranium or thorium in which the uranium-235 concentration is no more than 0.72% in the case of uranium, and the thorium is in its isotopic proportions found in nature	No limit	0.5Kg uranium or thorium per week	Where the waste is a solid, the standard disposal route;  Where the waste is an aqueous liquid, to a sewer

**Table 4**

**Aqueous radioactive waste values**

<i>Radionuclide</i>	<i>Concentration level in Bq/litre</i>
H-3	$10^3$
Be-7	1
C-14	0.1
F-18	0.1
Na-22	1
Na-24	1

<i>Radionuclide</i>	<i>Concentration level in Bq/litre</i>
Si-31	10
P-32	0.001
P-33	0.001
S-35	10
Cl-36	10
Cl-38	0.1
K-42	0.01
K-43	0.01
Ca-45	1
Ca-47	0.1
Sc-46	0.001
Sc-47	0.01
Sc-48	0.001
V-48	1
Cr-51	10
Mn-51	0.001
Mn-52	0.001
Mn-52m	0.001
Mn-53	1
Mn-54	0.01
Mn-56	0.001
Fe-52	0.01
Fe-55	1
Fe-59	0.01
Co-55	0.001
Co-56	0.001
Co-57	0.1
Co-58	0.1
Co-58m	1
Co-60	0.01
Co-60m	1
Co-61	0.1
Co-62m	0.001
Ni-59	1
Ni-63	10 <sup>2</sup>
Ni-65	0.01
Cu-64	0.1
Zn-65	0.1
Zn-69	10
Zn-69m	0.1
Ga-67	0.1
Ga-72	0.001
Ge-71	1
As-73	10
As-74	1
As-76	1
As-77	1
Se-75	0.1
Br-82	0.1
Rb-86	0.1

<i>Radionuclide</i>	<i>Concentration level in Bq/litre</i>
Sr-85	0.1
Sr-85m	0.1
Sr-87m	0.1
Sr-89	1
Sr-90+ (including Y-90)	0.1
Sr-91	0.01
Sr-92	0.01
Y-90	1
Y-91	1
Y-91m	0.01
Y-92	0.1
Y-93	0.1
Zr-93	10
Zr-95+ (including Nb-95)	0.001
Zr-97	0.01
Nb-93m	10
Nb-94	0.1
Nb-95	1
Nb-97	1
Nb-98	0.1
Mo-90	0.1
Mo-93	1
Mo-99	0.1
Mo-101	0.01
Tc-96	1
Tc-96m	100
Tc-97	100
Tc-97m	10
Tc-99	10
Tc-99m	10
Ru-97	0.01
Ru-103	0.01
Ru-105	0.01
Ru-106+ (including Rh-106)	0.1
Rh-103m	10
Rh-105	1
Pd-103	0.1
Pd-109	0.1
Ag-105	1
Ag-108m	0.1
Ag-110m	0.1
Ag-111	10
Cd-109	1
Cd-115	0.1
Cd-115m	1
In-111	0.01
In-113m	0.01
In-114m	0.01
In-115m	0.01
Sn-113	0.1

<i>Radionuclide</i>	<i>Concentration level in Bq/litre</i>
Sn-125	0.01
Sb-122	0.1
Sb-124	0.1
Sb-125	1
Te-123m	1
Te-125m	1
Te-127	10
Te-127m	1
Te-129	10
Te-129m	1
Te-131	1
Te-131m	1
Te-132	0.1
Te-133	1
Te-133m	1
Te-134	1
I-123	1
I-125	1
I-126	0.1
I-129	0.1
I-130	0.1
I-131	0.1
I-132	0.1
I-133	0.1
I-134	0.1
I-135	0.1
Cs-129	0.01
Cs-131	0.1
Cs-132	0.01
Cs-134	0.01
Cs-134m	0.1
Cs-135	0.1
Cs-136	0.001
Cs-137+ (including Ba-137m)	0.01
Cs-138	0.001
Ba-131	0.1
Ba-140	0.1
La-140	0.001
Ce-139	0.1
Ce-141	0.1
Ce-143	0.01
Ce-144	0.1
Pr-142	0.1
Pr-143	10
Nd-147	0.01
Nd-149	0.01
Pm-147	10
Pm-149	1
Sm-151	100
Sm-153	0.1

<i>Radionuclide</i>	<i>Concentration level in Bq/litre</i>
Eu-152	0.01
Eu-152m	0.01
Eu-154	0.01
Eu-155	0.1
Gd-153	0.1
Gd-159	0.1
Tb-160	0.01
Dy-165	0.1
Dy-166	0.1
Ho-166	0.1
Er-169	10
Er-171	0.01
Tm-170	1
Tm-171	10
Yb-175	0.1
Lu-177	0.1
Hf-181	0.01
Ta-182	0.001
W-181	0.1
W-185	1
W-187	0.01
Re-186	1
Re-188	1
Os-185	0.01
Os-191	0.1
Os-191m	1
Os-193	0.1
Ir-190	0.001
Ir-192	0.01
Ir-194	0.1
Pt-191	0.01
Pt-193m	1
Pt-197	0.1
Pt-197m	0.1
Au-198	1
Au-199	1
Hg-197	1
Hg-197m	0.1
Hg-203	0.1
Tl-200	0.01
Tl-201	0.1
Tl-202	0.01
Tl-204	0.1
Pb-203	0.01
Pb-210	0.001
Pb-212	0.1
Bi-206	0.01
Bi-207	0.1
Bi-210	10
Bi-212	1

<i>Radionuclide</i>	<i>Concentration level in Bq/litre</i>
Po-203	0.001
Po-205	0.001
Po-207	0.001
Po-210	0.001
At-211	1
Ra-223	0.01
Ra-224+ (including Pb212)	0.1
Ra-225	0.01
Ra-226+ (including Rn-222, Po-218, Pb-214, B-214, Po-214)	0.01
Ra-227	1
Ra-228	0.01
Ac-227	0.1
Ac-228	0.001
Th-226	0.1
Th-227	0.01
Th-228	1
Th-229	0.01
Th-230	1
Th-231	0.1
Th-232	1
Th-234	0.1
Pa-230	0.01
Pa-231	0.01
Pa-233	0.1
U-230	0.1
U-231	10
U-232	0.1
U-233	0.1
U-234	0.1
U-235+ (including Th-231)	0.1
U-236	0.1
U-237	10
U-238+ (including Th-234, Pa-234m, Pa-234)	0.1
U-239	10
U-240	10
Np-237	0.1
Np-239	1
Np-240	0.1
Pu-234	0.01
Pu-235	0.01
Pu-236	1
Pu-237	0.1
Pu-238	0.1
Pu-239	0.1
Pu-240	0.1
Pu-241	10
Pu-242	0.1
Pu-243	0.1
Pu-244	0.1

<i>Radionuclide</i>	<i>Concentration level in Bq/litre</i>
Am-241	0.1
Am-242	0.1
Am-242m	0.1
Am-243	0.1
Cm-242	1
Cm-243	0.1
Cm-244	0.1
Cm-245	0.01
Cm-246	0.1
Cm-247	0.01
Cm-248	0.1
Bk-249	100
Cf-246	1
Cf-248	1
Cf-249	0.01
Cf-250	0.1
Cf-251	0.01
Cf-252	0.1
Cf-253	10
Cf-254	0.0001
Es-253	1
Es-254	0.1
Es-254m	0.01
Fm-254	1
Fm-255	0.1
Any other radionuclide that is not of natural terrestrial or cosmic origin (where that radionuclide emits alpha particles)	0.0001 [That concentration level which gives rise to the same 10 $\mu$ Sv/ year dose criteria as used in this table, calculated using methods adopted by the Health Protection Agency in their document X published on Y]
Any other radionuclide that is not of natural terrestrial or cosmic origin (where that radionuclide emits beta particles)	0.001 [That concentration level which gives rise to the same 10 $\mu$ Sv/ year dose criteria as used in this table, calculated using methods adopted by the Health Protection Agency in their document X published on Y]

3. “The table 4 summation rule” means the sum of the quotient A/B where—

- (a) “A” means the concentration of each radionuclide listed in column 1 of table 4 that is present in the substance or article; and
- (b) “B” means the concentration of that radionuclide specified in column 2 of table 4.



**SCHEDULE 2**  
**Revocations**

Article 34

[All Exemption Orders extant in NI]

**EXPLANATORY NOTE**

*(This note is not part of the Order)*

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