

## SCHEDULE 23

### Radioactive substances activities

## PART 2

### Interpretation

#### Interpretation

1.—(1) In this Schedule—

“article” includes a part of an article;

“Bq” means becquerels;

“contamination” occurs where a substance or article is so affected by—

- (a) absorption, admixture or adhesion of radioactive material or radioactive waste, or
- (b) the emission of neutrons or ionising radiation,

as to become radioactive or to possess increased radioactivity;

“disposal” in relation to waste includes its removal, deposit, destruction, discharge (whether into water or into the air or into a sewer or drain or otherwise) or burial (whether underground or otherwise) and “dispose of” is to be construed accordingly;

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

“mobile radioactive apparatus” means any apparatus, equipment, appliance or other thing which is radioactive material and—

- (a) is constructed or adapted for being transported from place to place, or
- (b) is portable and designed or intended to be used for releasing radioactive material into the environment or introducing it into organisms;

“nuclear site” means—

- (a) any site in respect of which a nuclear site licence is for the time being in force, or
- (b) any site in respect of which, after the revocation or surrender of a nuclear site licence, the period of responsibility of the licensee has not yet come to an end,

and “licensee”, when used in relation to a nuclear site, and “period of responsibility” have the same meaning as in the Nuclear Installations Act 1965<sup>(1)</sup>;

“premises” includes any land, whether covered by buildings or not, including any place underground and any land covered by water;

“relevant liquid” means a liquid which—

- (a) is non-aqueous, or
- (b) is classified (or would be so classified in the absence of its radioactivity) under Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures<sup>(2)</sup> as having any of the following hazard classes and hazard categories (as defined in that Regulation)—
  - (i) acute toxicity: categories 1, 2 or 3,

<sup>(1)</sup> 1965 c. 57; the definition of “period of responsibility” was substituted by paragraph 20 of Part 2 of Schedule 12 to the Energy Act 2013 (c. 32).

<sup>(2)</sup> OJ No L 353, 31.12.2008, p 1, as last amended by Commission Regulation (EU) No 1297/2014 (OJ No L 350, 6.12.2014, p 1).

*Status: This is the original version (as it was originally made).*

- (ii) skin corrosion/irritation: category 1 corrosive, sub-categories: 1A, 1B or 1C, or
- (iii) hazardous to the aquatic environment: acute category 1 or chronic categories 1 or 2;

“substance” means any natural or artificial substance, whether in solid or liquid form or in the form of a gas or vapour;

“Table 1”, “Table 2”, “Table 3” mean the tables with those numbers in Part 3 of this Schedule;

“undertaking” includes any trade, business or profession and—

- (a) in relation to a public or local authority, includes any of the powers or duties of that authority;
- (b) in relation to any other body of persons (whether corporate or unincorporate), includes any of the activities of that body;

“waste” should be construed in accordance with paragraph 3(2).

(2) In this Schedule, where any reference is made to a substance or article possessing a concentration or quantity of radioactivity which exceeds the value specified in a column in either of Tables 1 and 2, or either of Tables 5 and 7 in Part 6 of this Schedule, that value is exceeded if—

- (a) where only one radionuclide which is listed or described in the relevant table is present in the substance or article, the concentration or quantity of that radionuclide exceeds the concentration or quantity specified in the appropriate entry of that column in that table, or
- (b) where more than one radionuclide which is listed or described in the relevant table is present, the sum of the quotient values of all such radionuclides in the substance or article, as determined by the summation rule following the table (as it applies to that column), is greater than one,

and any reference to a concentration or quantity of radioactivity not exceeding such a value shall be construed accordingly.

### **Interpretation: NORM industrial activity**

2.—(1) Subject to sub-paragraph (2), in this Schedule—

“type 1 NORM industrial activity” means—

- (a) the production and use of thorium, or thorium compounds, and the production of products where thorium is deliberately added, or
- (b) the production and use of uranium or uranium compounds, and the production of products where uranium is deliberately added;

“type 2 NORM industrial activity” means—

- (a) the extraction and production of rare earth elements and rare earth element alloys,
- (b) the mining and processing of ores other than uranium ore,
- (c) the production of oil and gas,
- (d) the removal and management of radioactive scales and precipitates from equipment associated with industrial activities,
- (e) any industrial activity utilising phosphate ore,
- (f) the manufacture of titanium dioxide pigments,
- (g) the extraction and refining of zircon and manufacture of zirconium compounds,
- (h) the production of tin, copper, aluminium, zinc, lead and iron and steel,
- (i) any activity related to coal mine de-watering plants,
- (j) china clay extraction,

- (k) water treatment associated with provision of drinking water, or
- (l) the remediation of contamination from any type 1 NORM industrial activity or any of the activities listed above.

(2) An activity which involves the processing of radionuclides of natural terrestrial or cosmic origin for their radioactive, fissile or fertile properties is not a type 1 NORM industrial activity or a type 2 NORM industrial activity.

**Interpretation: “radioactive material”, “radioactive waste” and “waste”**

3.—(1) In this Schedule, except as provided by paragraph 7, 8, 9 or 10—

“radioactive material” means a substance or article which is not waste, and which satisfies the requirements of paragraph 4, 5 or 6 as they apply to such a substance or article;

“radioactive waste” means a substance or article which is waste, and which satisfies the requirements of paragraph 4, 5 or 6.

(2) In this Schedule—

(a) “waste” includes—

- (i) any substance which constitutes scrap material or an effluent or other unwanted surplus substance arising from the application of any process, and
- (ii) any substance or article which requires to be disposed of as being broken, worn out, contaminated or otherwise spoilt, and

(b) any substance or article which, in the course of carrying on any undertaking, is discharged, discarded or otherwise dealt with as if it were waste is presumed to be waste unless the contrary is proved.

**NORM industrial activities**

4.—(1) Sub-paragraph (2) applies to a substance or article which—

- (a) arises from or is used in a type 1 NORM industrial activity,
- (b) is waste which arises from a type 2 NORM industrial activity, or
- (c) is contaminated by a substance or article described in paragraph (a) or (b), including where such contamination occurs indirectly through another contaminated substance or article.

(2) A substance or article to which this sub-paragraph applies is radioactive material or radioactive waste where it has a concentration of radioactivity which exceeds the following values in Table 1—

- (a) for a substance or article which is a solid or a substance which is a relevant liquid, the value specified in column 2,
- (b) for a substance which is any other liquid, the value specified in column 3, or
- (c) for a substance which is a gas, the value specified in column 4.

**Processed radionuclides of natural terrestrial or cosmic origin**

5. A substance or article is radioactive material or radioactive waste where—

- (a) the substance or article contains one or more of the radionuclides of natural terrestrial or cosmic origin which are listed in column 1 of Table 2,
- (b) the substance or article—
  - (i) is processed or is intended to be processed for the radioactive, fissile or fertile properties of those radionuclides, or

*Status: This is the original version (as it was originally made).*

- (ii) is contaminated by a substance or article to which paragraph (i) applies, including where such contamination occurs indirectly through another contaminated substance or article, and
- (c) the substance or article is—
  - (i) a solid or a relevant liquid and it has a concentration of radioactivity which exceeds the value specified in column 2 of Table 2, or
  - (ii) any other liquid or a gas.

**Radionuclides not of natural terrestrial or cosmic origin**

6. A substance or article which contains one or more radionuclides that are not of natural terrestrial or cosmic origin is radioactive material or radioactive waste where—

- (a) the substance or article is a solid or a relevant liquid and it has a concentration of radioactivity which exceeds the value specified in column 2 of Table 2, or
- (b) the substance is any other liquid or a gas.

**Radionuclides with a short half-life**

7. A substance or article is not radioactive material or radioactive waste where none of the radionuclides which it contains or which it consists of has a half-life exceeding 100 seconds.

**Radionuclides not of natural terrestrial or cosmic origin in background radioactivity**

8.—(1) A substance or article is not radioactive material or radioactive waste where—

- (a) the substance or article is contaminated as a result of a climatic process, or a combination of such processes, by radionuclides which—
  - (i) are not of natural terrestrial or cosmic origin, and
  - (ii) are not present in the substance or article at a concentration that exceeds that found normally in such a substance or article in the United Kingdom, and
- (b) in the absence of such contamination, the substance or article would not otherwise be radioactive material or radioactive waste under this Schedule.

(2) In this paragraph, a “climatic process” includes wind, precipitation and the general circulation of the atmosphere and oceans.

**Contaminated substances or articles**

9.—(1) Subject to sub-paragraph (2), a substance or article is not radioactive material where—

- (a) the substance or article is contaminated, but has not been so contaminated with the intention of utilising its radioactive, fissile or fertile properties, and
- (b) in the absence of such contamination, the substance or article would not otherwise be radioactive material under this Schedule.

(2) Sub-paragraph (1) only applies while the substance or article is kept on the premises on which the contamination occurred.

**Substances or articles after disposal**

10.—(1) A substance or article is not radioactive material or radioactive waste during the excluded period where—

- (a) the substance or article has been disposed of lawfully, and at the time of the disposal no further act of disposal is intended in respect of it, or
- (b) the substance or article—
  - (i) is contaminated by a substance or article to which paragraph (a) applies, including where such contamination occurs indirectly through another contaminated substance or article,
  - (ii) in the absence of such contamination, would not otherwise be radioactive material or radioactive waste under this Schedule, and
  - (iii) is not contaminated with the intention of using its radioactive, fissile or fertile properties.
- (2) In sub-paragraph (1), “the excluded period” means the period—
  - (a) beginning at the relevant start time, and
  - (b) ending at the time that there is an increase in the radiation exposure of the public or of any plant or animal which is caused by the substance or article being subject to a process after the relevant start time.
- (3) Sub-paragraph (4) applies to a substance or article which—
  - (a) is disposed of by burial (whether underground or otherwise) on premises in respect of which an environmental permit in respect of the radioactive substances activity in paragraph 11(2)(b) is held at the time of disposal,
  - (b) is disposed of in accordance with that permit, and
  - (c) is solid at the time of the disposal.
- (4) Where this sub-paragraph applies, the relevant start time is—
  - (a) where the environmental permit in sub-paragraph (3)(a) is surrendered, the time at which the surrender takes effect, or
  - (b) where that permit is revoked and—
    - (i) regulation 23 applies to that permit, the time at which the regulator issues the certificate described in paragraph (4) or (6) of that regulation, or
    - (ii) regulation 23 does not apply to that permit, the time at which the revocation takes effect.
- (5) Sub-paragraph (6) applies to a substance or article (“A”) described in sub-paragraph (1)(b), where the substance or article (“B”) which contaminates it (directly or indirectly) is described in sub-paragraph (3).
- (6) Where this sub-paragraph applies, the relevant start time for A is the later of—
  - (a) the time at which A becomes contaminated, and
  - (b) the relevant start time for B.
- (7) In respect of a substance or article (“C”) to which sub-paragraphs (4) and (6) do not apply, the relevant start time is—
  - (a) where sub-paragraph (1)(a) applies to C, the time at which C is disposed of;
  - (b) where sub-paragraph (1)(b) applies to C, the time at which C becomes contaminated.

**Interpretation: radioactive substances activity**

**11.**—(1) Subject to paragraphs 13 and 14, “radioactive substances activity” means an activity described in sub-paragraph (2), (4), (5) or (6).

*Status: This is the original version (as it was originally made).*

(2) A radioactive substances activity is carried on where a person uses premises for the purposes of an undertaking and that person—

- (a) except where sub-paragraph (5) applies, keeps or uses radioactive material on those premises,
- (b) disposes of radioactive waste on or from those premises, or
- (c) accumulates radioactive waste on those premises,

knowing or having reasonable grounds for believing the material or waste to be radioactive material or radioactive waste.

(3) For the purposes of sub-paragraph (2)(c), where—

- (a) radioactive material is produced, kept or used on any premises,
- (b) any substance arising from the production, keeping or use of that material is accumulated in a part of the premises appropriated for the purpose, and
- (c) that substance is retained there for a period of not less than 3 months,

that substance, unless the contrary is proved, is presumed to be radioactive waste.

(4) A radioactive substances activity is carried on where, in the course of a person carrying on an undertaking, that person—

- (a) receives radioactive waste for the purposes of disposing of that waste, and
- (b) knows or has reasonable grounds for believing the waste to be radioactive waste.

(5) A radioactive substances activity is carried on where a person keeps or uses mobile radioactive apparatus for—

- (a) testing, measuring or otherwise investigating any of the characteristics of substances or articles, or
- (b) releasing quantities of radioactive material into the environment or introducing such material into organisms.

(6) A radioactive substances activity is carried on where a person carries out intrusive investigation work or other excavation, construction or building work—

- (a) to determine the suitability of any premises, or
- (b) to enable the use of any premises,

as a place that may be used wholly or substantially for underground disposal.

(7) In sub-paragraph (6)—

“intrusive investigation work” means the drilling of boreholes into, or excavation of, sub-soil or rock to determine geological or hydrogeological conditions;

“underground disposal” means—

- (a) the disposal of solid radioactive waste in an engineered facility, or in part of an engineered facility, which is beneath the surface of the ground, and
- (b) where the natural environment which surrounds the facility acts, in combination with any engineered measures, to inhibit the transit of radionuclides from the facility to the surface,

and does not include the disposal of radioactive waste in a facility which is beneath the surface of the ground only by virtue of the placing of rocks or soil above it.

### **Discharge of functions: mobile radioactive apparatus**

12.—(1) In the case of an activity described in paragraph 11(5), if the principal place where the apparatus mentioned in that sub-paragraph is kept when not in use is in England or Wales, functions

in relation to the activity are exercisable by the appropriate agency in whose area the principal place of keeping is.

(2) But sub-paragraph (1) does not apply to functions under regulations 36, 37, 38 and 42 (which are exercisable in relation to the activity in accordance with regulation 32(1)).

### **Nuclear sites**

**13.**—(1) Paragraph 11(2)(a) does not apply to the activity carried on by a licensee of a nuclear site on any premises situated on that site at any time—

- (a) while a nuclear site licence is in force in respect of that site, and
- (b) after the revocation or surrender of such a licence but before the period of responsibility of the licensee has come to an end.

(2) In respect of any premises which—

- (a) are situated on a nuclear site, but
- (b) have ceased to be used for the purposes of an undertaking carried on by the licensee,

paragraph 11(2)(b) applies to those premises as if the premises were used for the purposes of an undertaking carried on by the licensee.

(3) Paragraph 11(2)(c) does not apply to the accumulation of radioactive waste on any premises situated on a nuclear site.

### **Vehicles, vessels and aircraft**

**14.** In determining whether any radioactive material is kept or used on any premises, no account must be taken of any radioactive material kept or used in or on any railway vehicle, road vehicle, vessel or aircraft if—

- (a) the vehicle, vessel or aircraft is on the premises in the course of a journey, or
- (b) in the case of a vessel which is on those premises otherwise than in the normal course of a journey, the material is used in propelling the vessel or is kept in or on the vessel for use in propelling it.