

## SCHEDULE 23

Regulation 35(2)(q)

### Radioactive substances activities

#### PART 1

##### Application

##### Application

1. This Schedule applies in relation to every radioactive substances activity.

#### PART 2

##### Interpretation

##### Interpretation

1. In this Schedule—

“article” includes a part of an article;

“the Basic Safety Standards Directive” means Council Directive 96/29/EURATOM(1) laying down basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionising radiation;

“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 radiations,

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;

“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(2);

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

(1) OJ L 159, 29.6.1996, p 1.

(2) 1965 c. 57. Section 5(3) was amended by S.I. 1974/2056, regulation 2 and Schedule 2, paragraph 1.

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

“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, and
- (b) in relation to any other body of persons (whether corporate or unincorporate), includes any of the activities of that body; and

“waste” has the meaning given in paragraph 3.

### Interpretation: radioactive material

2.—(1) In this Schedule, “radioactive material” means anything which, not being waste, is either a substance to which this sub-paragraph applies or an article made wholly or partly from, or incorporating, such a substance.

(2) Sub-paragraph (1) applies to any substance which—

- (a) contains an element specified in the first column of the table in sub-paragraph (4), in such a proportion that the number of becquerels of that element contained in the substance, divided by the number of grams which the substance weighs, is a number greater than that specified in relation to that element in the appropriate column of that table; or
- (b) possesses radioactivity which is wholly or partly attributable to a process of nuclear fission or other process of subjecting a substance to bombardment by neutrons or to ionising radiations, not being a process occurring in the course of nature, or in consequence of the disposal of radioactive waste, or by way of contamination in the course of the application of a process to some other substance.

(3) In sub-paragraph (2)(a), “the appropriate column” means—

- (a) in relation to a solid substance, the second column;
- (b) in relation to a liquid substance, the third column;
- (c) in relation to a substance which is a gas or vapour, the fourth column.

(4) The table referred to in sub-paragraph (2)(a)—

#### Specified elements

Element	Becquerels per gram (Bq g (to the power of -1))		
	Solid	Liquid	Gas or Vapour
1. Actinium	0.37	7.40 x (10 to the power of -2)	2.59 x (10 to the power of -6)
2. Lead	0.74	3.70 x (10 to the power of -3)	1.11 x (10 to the power of -4)
3. Polonium	0.37	2.59 x (10 to the power of -2)	2.22 x (10 to the power of -4)
4. Protoactinium	0.37	3.33 x (10 to the power of -2)	1.11 x (10 to the power of -6)
5. Radium	0.37	3.70 x (10 to the power of -4)	3.70 x (10 to the power of -5)

<i>Element</i>	<i>Becquerels per gram (Bq g (to the power of -1))</i>		
6. Radon			3.70 x (10 to the power of -2)
7. Thorium	2.59	3.70 x (10 to the power of -2)	2.22 x (10 to the power of -5)
8. Uranium	11.1	0.74	7.40 x (10 to the power of -5)

**Interpretation: waste**

**3.** 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 spoiled; 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.

**Interpretation: radioactive waste**

**4.** In this Schedule, “radioactive waste” means waste which consists wholly or partly of—

- (a) a substance or article which, if it were not waste, would be radioactive material;
- (b) a substance or article which has been contaminated in the course of the production, keeping or use of radioactive material, or by contact with or proximity to other waste falling within sub-paragraph (a) or this sub-paragraph.

**Interpretation: radioactive substances activity**

**5.—(1)** Subject to paragraphs 6 and 7, “radioactive substances activity” means an activity described in sub-paragraph (2), (4), (5) or (6).

(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; and

“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.

### **Nuclear sites**

6.—(1) Paragraph 5(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 5(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 5(2)(c) does not apply to the accumulation of radioactive waste on any premises situated on a nuclear site.

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

7. 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.

## PART 3

### The Basic Safety Standards Directive

#### SECTION 1

##### *Exposures and doses*

1. In respect of a radioactive substances activity that relates to radioactive waste, the regulator must exercise its relevant functions to ensure that—

- (a) all exposures to ionising radiation of any member of the public and of the population as a whole resulting from the disposal of radioactive waste are kept as low as reasonably achievable, taking into account economic and social factors; and
- (b) the sum of the doses resulting from the exposure of any member of the public to ionising radiation does not exceed the dose limits set out in Article 13 of the Basic Safety Standards Directive subject to the exclusions set out in Article 6(4) of that Directive.

2.—(1) In exercising those relevant functions in relation to the planning stage of radiation protection, the regulator must have regard to the following maximum doses to individuals which may result from a defined source—

- (a) 0.3 millisieverts per year from any source from which radioactive discharges are first made on or after 13th May 2000; or
- (b) 0.5 millisieverts per year from the discharges from any single site.

(2) In exercising those relevant functions, the regulator must observe the following requirements of the Basic Safety Standards Directive—

- (a) in estimating effective dose and equivalent dose, Articles 15 and 16;
- (b) in estimating population doses, Article 45; and
- (c) in relation to the responsibilities of undertakings, Article 47.

#### SECTION 2

##### *Interventions*

### **Radioactive waste: power of the Secretary of State to provide facilities for disposal or accumulation**

3.—(1) If it appears to the Secretary of State that adequate facilities are not available for the safe disposal or accumulation of radioactive waste, the Secretary of State may—

- (a) provide such facilities; or
- (b) make arrangements for their provision by such persons as the Secretary of State may think fit.

(2) Before exercising the power under sub-paragraph (1), the Secretary of State must consult with—

- (a) any local authority in whose area the facilities would be situated; and
  - (b) such other public or local authorities (if any) as appear to the Secretary of State to be proper to be consulted.
- (3) Reasonable charges for the use of any facilities provided under sub-paragraph (1) may be made by—
- (a) the Secretary of State; or
  - (b) the person providing such facilities, unless the arrangements made by the Secretary of State with that person provide to the contrary.

### **Radioactive waste: power of disposal by the regulator**

4.—(1) Sub-paragraph (2) applies if there is radioactive waste on any premises and the regulator is satisfied that the waste ought to be disposed of but it is unlikely that the waste will be lawfully disposed of—

- (a) because the premises are unoccupied;
- (b) because the occupier is absent or insolvent; or
- (c) for any other reason.

(2) The regulator may dispose of the waste and recover any expenses it reasonably incurs in that disposal from—

- (a) the occupier of the premises;
- (b) if the premises are unoccupied, the owner of the premises.

(3) In sub-paragraph (2)—

- (a) “owner” has the same meaning as in section 343 of the Public Health Act 1936<sup>(3)</sup>; and
- (b) the provisions of section 294 of that Act (which limits the liability of owners who are only agents or trustees) apply but as if reference in that section to a council recovering expenses under that Act were to the regulator recovering expenses under sub-paragraph (2).

## **PART 4**

### **The HASS Directive**

#### *SECTION 1*

#### *Security of sources*

### **Interpretation**

1. In this Part—

“the HASS Directive” means Council Directive 2003/122/EURATOM<sup>(4)</sup> on the control of high-activity sealed radioactive sources and orphan sources;

“high-activity or similar source” means—

- (a) a high-activity source; or
- (b) such other sealed source which, in the opinion of the regulator, is of a similar level of potential hazard to a high-activity source;

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<sup>(3)</sup> 1936 c. 49.

<sup>(4)</sup> OJ No L 346, 31.12.2003, p 57.

“high-activity source” has the same meaning as in the HASS Directive but excluding any such source once its activity level has fallen below the exemption levels specified in column 2 of Table A to Annex I to the Basic Safety Standards Directive;

“orphan source” has the same meaning as in the HASS Directive; and

“sealed source” has the same meaning as in the HASS Directive.

### **Site security: inspection**

**2.—**(1) In exercising relevant functions in relation to a radioactive substances activity, the regulator must comply with sub-paragraph (3) where a high-activity or similar source is, or will be, kept, used, disposed of or accumulated on any premises.

(2) Sub-paragraph (1) does not apply where the premises are, or are part of, a nuclear site.

(3) In considering if the measures taken, or to be taken, by the operator ensure the adequate security of any premises, the regulator must where appropriate inspect those premises.

(4) Where the regulator inspects any premises under sub-paragraph (3), it may be accompanied by such other persons as are appropriate to assist it in assessing the measures.

(5) An operator must permit the regulator (and any person accompanying it) reasonable access to any premises the regulator wishes to inspect under sub-paragraph (3).

(6) If the operator fails to comply with sub-paragraph (5), the regulator may refuse the application or revoke the permit insofar as it relates to the sources referred to in sub-paragraph (1).

### **Site security: security measures and advice**

**3.—**(1) In exercising relevant functions in relation to a radioactive substances activity, the regulator must comply with sub-paragraph (2) where a high-activity or similar source is, or will be, kept, used, disposed of or accumulated on any premises.

(2) The regulator—

(a) must be satisfied that there are in place measures concerning site security, including the security measures in sub-paragraph (3), as are appropriate to the source and premises in question;

(b) where it considers it appropriate to do so, must consult the police, security services or other appropriate persons on site security;

(c) must have regard to any advice given by them, if it is issued within such time as the regulator believes is reasonable before it exercises a relevant function; and

(d) must impose appropriate environmental permit conditions concerning site security.

(3) The security measures referred to in sub-paragraph (2)(a) are—

(a) measures to ensure the physical security of the premises, including the installation of alarm and detection systems, and the retaining of documentary evidence of those measures;

(b) measures, which are evidenced in writing—

(i) to prevent unauthorised access to, or loss or theft of, a high-activity or similar source;

(ii) to detect such matters; and

(iii) to review and enhance the physical security of the premises in response to any increased risk of unauthorised access, loss or theft;

(c) written procedures to ensure that before a person is authorised to have access to a high-activity or similar source—

(i) that person has passed checks to verify their identity, and

- (ii) satisfactory written references have been obtained which confirm, as far as reasonably practicable, that there is no information to indicate that the person presents any security risk to the sources; and
- (d) measures to keep secure, and prevent unauthorised access to, information relating to—
  - (i) a high-activity or similar source, and
  - (ii) the measures referred to in paragraphs (a), (b) and (c).

## SECTION 2

### *Advice and assistance in relation to orphan sources*

#### **Advice and assistance in respect of orphan sources**

- 4.—(1) The relevant person must ensure that specialised technical advice and assistance is promptly made available to persons who—
- (a) are not normally involved in operations subject to radiation protection requirements, and
  - (b) suspect the presence of an orphan source.
- (2) The relevant person must ensure that the primary aim of such advice and assistance is—
- (a) the safety of the source; and
  - (b) protecting the public and workers from radiation.
- (3) The relevant person means—
- (a) in relation to the protection of workers, the Secretary of State;
  - (b) in relation to the protection of the public (other than workers)—
    - (i) in England, the Secretary of State,
    - (ii) in Wales, the Welsh Ministers.

## SECTION 3

### *Exercise of relevant functions and matters in relation to orphan sources*

#### **General**

- 5.—(1) In exercising relevant functions in relation to a radioactive substances activity, the regulator must comply with the following provisions of the HASS Directive—
- (a) Article 3(2) and (3);
  - (b) Article 4;
  - (c) Article 5(1) and (2);
  - (d) Article 6;
  - (e) subject to sub-paragraph (2), Article 7(1) and (2).
- (2) In relation to a high-activity source placed on the market before 31st December 2005, sub-paragraph (1)(e) has effect as if it referred to the provisions contained in Article 16(1)(b) of the HASS Directive.

#### **Records and inspections**

6. In relation to a high-activity source, the regulator must—



- (a) keep records of those matters—
  - (i) required by Article 5(3) and (4) of the HASS Directive; and
  - (ii) notified to it under Article 6 of that Directive;and
- (b) establish or maintain a system of inspections to enforce the following provisions of the HASS Directive—
  - (i) Articles 3 to 6;
  - (ii) as appropriate, Article 7(1) and (2) or Article 16(1)(b).

### **Training and information**

7.—(1) In relation to a high-activity source, the appropriate training and adequate information required by the Ionising Radiations Regulations 1999<sup>(5)</sup> must include—

- (a) specific requirements for the safe management of such a source;
- (b) particular emphasis on the necessary safety requirements in relation to such a source; and
- (c) specific information on possible consequences of the loss of adequate control of such a source.

(2) The training and information on the matters in sub-paragraph (1) must be repeated at regular intervals and documented, with a view to preparing the employees and other persons referred to in those Regulations for such matters.

### **Orphan sources**

8.—(1) The regulator must—

- (a) be prepared, or have made provision (including the assignment of responsibilities), to recover any orphan source; and
- (b) have drawn up appropriate response plans and measures.

(2) The regulator may recover any expenses reasonably incurred by it in the recovery and disposal of an orphan source from—

- (a) the person carrying on the radioactive substances activity involving that source; or
- (b) the occupier or owner of the premises where the source is located.

(3) In relation to sub-paragraph (2)—

- (a) “owner” has the same meaning as in section 343 of the Public Health Act 1936<sup>(6)</sup>; and
- (b) the provisions of section 294 of that Act (which limits the liability of owners who are only agents or trustees) apply but as if reference in that section to a council recovering expenses under that Act were to the regulator recovering expenses under sub-paragraph (2).

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<sup>(5)</sup> S.I. 1999/3232.

<sup>(6)</sup> 1936 c. 49.

## PART 5

### Conditions in environmental permits

#### Posting on premises of environmental permits

1.—(1) Subject to sub-paragraph (3), the regulator must impose environmental permit display conditions on an environmental permit granted under these Regulations if the permit—

- (a) relates to a radioactive substances activity described in paragraph 5(2) of Part 2 of this Schedule; and
- (b) does not relate to a sealed source.

(2) Despite regulation 69(b), where an existing radioactive substances permit—

- (a) becomes an environmental permit by virtue of regulation 69(a); and
- (b) does not relate to a sealed source,

the environmental permit has effect subject to environmental permit display conditions in addition to any conditions that applied to it at the relevant time.

(3) The regulator, if required to do so on the grounds of national security by any direction or guidance issued to it under these Regulations or under any other enactment—

- (a) must vary or revoke environmental permit display conditions or any similar environmental permit conditions that applied to an existing radioactive substances permit at the relevant time; or
- (b) must not impose such conditions.

(4) In this paragraph—

“environmental permit display conditions” means a requirement that the operator—

- (a) keep copies of the permit posted on the premises, and
- (b) post the permit in such characters and positions as to be conveniently read by persons who have duties on the premises which are or could be affected by the matters set out in the permit; and

“existing radioactive substances permit” means—

- (a) an authorisation under section 13 or 14 of the 1993 Act, or
- (b) a registration under section 7 of the 1993 Act.