#### SCHEDULE 1

Regulations 16, 19, 21,25 and 26

## REGISTRATIONS AND PERMITS: PROCEDURES

## PART 1

## General provisions

## Form of application

**1.** An application under these Regulations must be in writing and in such form as SEPA may from time to time require.

#### Accompanying information

- 2.—(1) An application must be accompanied by—
  - (a) any fee payable under a charging scheme;
  - (b) any information required by virtue of the technical schedule; and
  - (c) any other information in such form as SEPA may reasonably require.
- (2) SEPA may decline to accept an application where SEPA considers any one or more of the requirements in sub-paragraph (1) are not met.
  - (3) Where SEPA declines to accept an application—
    - (a) it must inform the applicant in writing;
    - (b) the applicant is entitled to a refund of the fee which accompanied the application or such part of the fee as is specified in a charging scheme; and
    - (c) the provisions of this schedule, other than paragraphs 1 and 2, do not apply to the application.

## Withdrawing an application

- **3.**—(1) An application may be withdrawn by the applicant before it is determined.
- (2) Where an application is withdrawn the applicant is not entitled to the refund of any fee which accompanied it.

## Modifying an application

**4.** An application may be modified by the applicant before it is determined if SEPA agrees in writing to the modification.

#### Notifications relating to certain applications

- 5.—(1) This sub-paragraph applies where SEPA receives an application for a—
  - (a) permit;
  - (b) transfer of a permit;
  - (c) variation of a permit;
  - (d) surrender of a permit; or
  - (e) transfer of a revocation notice.
- (2) Where sub-paragraph (1) applies, SEPA must notify the applicant of—

- (a) the determination period that applies in respect of the application;
- (b) any consultation that is required by virtue of paragraphs 7 and 8 of this schedule (including details of the consultation period); and
- (c) any steps that the applicant is required to take in relation to consultation in accordance with paragraph 8(2).

#### Further information in respect of an application

- **6.**—(1) This paragraph applies where SEPA receives an application for—
  - (a) a permit;
  - (b) the transfer, variation or surrender of a permit;
  - (c) a registration; or
  - (d) the transfer, variation or surrender of a registration.
- (2) Where SEPA considers that it requires further information to determine an application, it may serve a notice on the applicant specifying the further information and the period within which it must be provided.
- (3) Where the applicant fails to provide the information in accordance with the notice, SEPA may by further notice deem the application to be withdrawn.
- (4) Where an application is deemed to be withdrawn, the applicant is not entitled to the refund of any fee which accompanied it.
- (5) SEPA may carry out such examination and investigation as it considers necessary to allow it to make a determination in respect of the application.

## **Public Consultation: scope**

- 7.—(1) Paragraph 8 applies to any application for a—
  - (a) permit;
  - (b) variation of a permit; or
  - (c) surrender of a permit (in whole or in part),

where any of the criteria in sub-paragraph (3) is met.

- (2) Paragraph 8 applies to a SEPA initiated variation of a permit where any of the criteria in subparagraph (3) is met.
  - (3) The criteria are—
    - (a) consultation is required by the technical schedule;
    - (b) the permit or variation, where granted, will authorise for the first time, a regulated activity which has the potential to cause significant environmental harm;
    - (c) where SEPA determines paragraph 8 should apply.

#### **Public consultation requirements**

- **8.**—(1) Subject to sub-paragraphs (2) and (3), if this paragraph applies SEPA must ensure that—
  - (a) the application or proposed SEPA initiated variation is publicised in such manner as SEPA thinks fit;
  - (b) public consultees are invited to make representations;
  - (c) the address to which and period within which such representations may be made is specified to the public consultees; and

- (d) copies of the application or proposed SEPA initiated variation are made available to the public for such period, being a period of at least 28 days, as SEPA may determine ("the consultation period").
- (2) In fulfilling the duties in sub-paragraph (1)(a) or (b), SEPA may require the applicant or authorised person to take such steps as SEPA considers appropriate.
- (3) Where the applicant fails to take the steps required by SEPA, SEPA may by further notice deem the application to be withdrawn.
- (4) Where an application is deemed to be withdrawn under sub-paragraph (3), the applicant is not entitled to the refund of any fee which accompanied it.
- (5) Where an authorised person fails to take the steps required by SEPA in the case of a SEPA initiated variation, SEPA may take those steps and may recover the costs it reasonably incurs in doing so from that person.
- (6) SEPA must consider all representations made in connection with an application or SEPA initiated variation which are received during the consultation period.
- (7) SEPA must not inform the public consultees of information which is to be excluded from the register in the interests of national security or commercial confidentiality unless the Scottish Ministers direct that it must do so.
  - (8) In this paragraph, "public consultee" means—
    - (a) a person whom SEPA considers is affected by, is likely to be affected by, the application;
    - (b) a statutory body—
      - (i) required to be consulted by SEPA in terms of the technical schedule; or
      - (ii) whom SEPA thinks fit to consult.

## Duty to determine an application

- **9.**—(1) SEPA must grant or refuse (in whole or in part) an application.
- (2) SEPA must notify the applicant of its determination and, where the application is refused, provide—
  - (a) grounds for the refusal; and
  - (b) details of any right of appeal.

## Time limits for determining applications

- **10.**—(1) Where—
  - (a) SEPA fails to determine an application within the determination period; and
  - (b) the applicant serves notice on SEPA that the applicant wishes the failure to be treated as a refusal,

the application is deemed to have been refused on the day on which the notice is served.

- (2) SEPA may determine an application after the end of the determination period unless the application has been deemed refused in accordance with sub-paragraph (1).
  - (3) In this paragraph, "the determination period" means—
    - (a) for an application for—
      - (i) registration;
      - (ii) variation of a registration;
      - (iii) transfer of a registration;

- (iv) surrender of a registration; or
- (v) transfer of a revocation notice relating to a registration,

the period of 28 days beginning with the date on which SEPA receives an application;

- (b) for an application for-
  - (i) transfer of a permit; or
  - (ii) transfer of a revocation notice relating to a permit,

the period of two months beginning with the date on which SEPA receives the application, or such longer period as may be agreed with the applicant in writing;

- (c) for an application for—
  - (i) a permit;
  - (ii) the variation of a permit; or
  - (iii) the surrender of a permit,

the period of four months beginning with the date on which SEPA receives the application, or such longer period as may be agreed with the applicant in writing.

#### **Extension of determination periods**

- 11.—(1) Subject to sub-paragraph (2), any determination period may be extended by agreement in writing between SEPA and the applicant.
  - (2) The determination periods specified in paragraph 10(3)(a) cannot be extended.

#### Calculating the determination period

- **12.**—(1) In calculating the determination periods specified in paragraph 10, or extended under paragraph 11, the following periods are not counted—
  - (a) any period during which an application for commercial confidentiality under regulation 41 is being considered;
  - (b) any period during which an appeal under regulation 55(1)(o) against a decision not to exclude information on the grounds of commercial confidentiality is being considered;
  - (c) any period beginning with the first day of a 21 day period and ending on the day on which the call-in process ends in accordance with paragraph 21.
  - (2) In this paragraph "21 day period" has the same meaning as in paragraph 20.

## Variation Notices

- **13.**—(1) SEPA must, on varying a permit or registration, give notice (a "variation notice") to the authorised person specifying—
  - (a) the variation being made;
  - (b) the date on which the variation is to take effect (being not earlier than the date of service of the notice); and
  - (c) the rights of appeal available to the authorised person.
  - (2) Unless the variation notice is withdrawn it has effect on the date so specified in the notice.

#### Surrender applications

- **14.**—(1) In deciding whether to grant or refuse (in whole or in part) an application for surrender of a registration or permit, SEPA must consider—
  - (a) the impact on the environment resulting from the—
    - (i) carrying on of the activity; and
    - (ii) cessation of the carrying on of the activity; and
  - (b) whether it is satisfied that all reasonable steps have been taken by the authorised person to—
    - (i) prevent environmental harm arising as a result of the activity having been carried on;
    - (ii) prevent environmental harm arising as a result of the cessation of the activity; and
    - (iii) restore the environment affected by the activity to a satisfactory state.
- (2) Where SEPA grants an application for surrender (in whole or in part) SEPA must serve notice (a "surrender notice") on the applicant in accordance with paragraph 15.
- (3) An authorisation ceases to have effect on the date specified in the notice and to the extent specified in the notice.
- (4) An authorisation may continue to have effect only to the extent necessary to require the taking of steps specified in a notice.

#### **Notice of surrender**

- **15.**—(1) A surrender notice must—
  - (a) specify any steps which SEPA considers must be taken by the authorised person to—
    - (i) ensure compliance with the technical schedule;
    - (ii) prevent environmental harm arising as a result of the regulated activity having been carried on;
    - (iii) prevent environmental harm arising as a result of the cessation of the activity;
    - (iv) restore the environment affected by the activity to a satisfactory state; and
    - (v) remove any equipment, plant, articles, waste or substances associated with the activity which adversely affect the amenity of the authorised place and surrounding area; and
  - (b) either—
    - (i) provide that the authorisation ceases to have effect on the date on which SEPA confirms to the applicant in writing that the steps have been completed to its satisfaction; or
    - (ii) specify the date on which the authorisation ceases to have effect (being not less than 28 days from the date of service of the notice (unless a shorter period is agreed between SEPA and the authorised person)).
- (2) SEPA may impose an off-site condition in a surrender notice.
- (3) Where SEPA grants the application for surrender in part, a surrender notice must also specify—
  - (a) the extent to which the application is being granted; and
  - (b) any variations which are necessary to the authorisation as a result of the partial surrender.
- (4) Where SEPA specifies steps to be taken by the authorised person, those steps are deemed to be conditions of the authorisation.

- (5) An authorisation ceases to have effect on—
  - (a) the date specified in the surrender notice; or
  - (b) the date on which SEPA confirms to the applicant in writing that the steps specified in a surrender notice have been completed to its satisfaction.

#### Revocation of permits or registrations

- **16.**—(1) A revocation notice must—
  - (a) specify any steps which SEPA considers must be taken by the authorised person, and the period within which those steps must be completed, to—
    - (i) ensure compliance with the technical schedule;
    - (ii) prevent environmental harm arising as a result of the activity having been carried on;
    - (iii) prevent environmental harm arising as a result of the cessation of the activity;
    - (iv) restore the environment affected by the activity to a satisfactory state; and
    - (v) remove any equipment, plant, articles, waste or substances associated with the activity or otherwise preserve the amenity of the authorised place and surrounding area;
  - (b) specify the reasons for the revocation;
  - (c) in the case of a partial revocation specify—
    - (i) the extent to which the permit or registration is being revoked; and
    - (ii) any variations which are necessary to the permit or registration as a result of the partial revocation; and
  - (d) specify the date on which the authorisation ceases to have effect which—
    - (i) may be the date on which SEPA confirms to the authorised person in writing that the steps have been completed to SEPA's satisfaction; or
    - (ii) must be at least 28 days after the date on which the notice is served.
- (2) An authorisation ceases to have effect on the date specified in the revocation notice.

## Interpretation: satisfactory state

- 17.—(1) When considering whether it is satisfied that the environment affected by an activity has been restored to a satisfactory state, SEPA may have regard to—
  - (a) the state of the environment as at the date the authorisation (or other licence) was granted;
  - (b) the state of the environment as described in any report submitted to SEPA;
  - (c) the remediation of any environmental harm which SEPA considers could reasonably have been caused by the activity; and
  - (d) such other matters as SEPA thinks fit.
  - (2) In this paragraph—
    - (a) "other licence" includes a licence, permit, registration, exemption permission, or consent issued under another regulatory regime; and
    - (b) "report" includes a report written for the purposes of these Regulations or for another regulatory regime.

## PART 2

## Call-in procedure

- 18.—(1) This Part applies to—
  - (a) an application for—
    - (i) grant of a permit;
    - (ii) variation of a permit; or
    - (iii) surrender of a permit; and
  - (b) a SEPA initiated variation,

in respect of which a third party representation has been made.

- **19.**—(1) The Scottish Ministers may direct SEPA that an application or a SEPA initiated variation to which this Part applies is referred to the Scottish Ministers for determination.
  - (2) SEPA must comply with a direction made under sub-paragraph (1).
- (3) The Scottish Ministers must determine a matter referred to them for determination under this paragraph in accordance with Part 3.
  - 20. Before granting an application or issuing a variation to which this Part applies SEPA must—
    - (a) serve notice of its proposed determination on any person who has made a representation under paragraph 8(6) in respect of the application or SEPA initiated variation specifying that the person may, within the period of 21 days beginning with the date of service of the notice ("the 21 day period"), notify the Scottish Ministers in writing that that person objects to SEPA's proposed determination; and
    - (b) notify the applicant that—
      - (i) it has made a proposed determination, and make a copy of the proposed determination available to the applicant;
      - (ii) the 21 day period has commenced; and
      - (iii) the application will be granted as soon as practicable following the occurrence of one of the days specified in paragraph 22, unless Scottish Ministers direct otherwise.
- **21.** SEPA must not determine an application or SEPA initiated variation to which this Part applies before the occurrence of one of the days specified in paragraph 22.
  - 22. The days specified are—
    - (a) where every person who made a third party representation has waived (in writing) his or her opportunity to object before the end of the 21 day period, the day on which the last person waived his or her opportunity;
    - (b) where no objections have been made to the Scottish Ministers, the day on which the 21 day period expires;
    - (c) where Scottish Ministers have received an objection within the 21 day period—
      - (i) the day on which SEPA receives written notice from the Scottish Ministers confirming that the Scottish Ministers do not intend to direct SEPA to refer the application or SEPA initiated variation to them for their determination; or
      - (ii) where no such notice has been received from the Scottish Ministers, the day falling 28 days after the day on which the 21 day period expired;

(d) where the Scottish Ministers have directed SEPA to refer the matter to them for determination, the day on which SEPA receives a direction from Scottish Ministers under paragraph 19(1) to determine the matter in a particular way.

#### PART 3

## Determinations of applications by the Scottish Ministers

- 23.—(1) This paragraph applies where Scottish Ministers have directed SEPA to refer to them for their determination an application, or any part of an application, or SEPA initiated variation, or any part of a SEPA initiated variation, under paragraph 19(1).
- (2) The following provisions apply to the Scottish Ministers in respect of an application referred to them in accordance with paragraph 19(1) as they do to SEPA in respect of an application made under these Regulations—
  - (a) regulation 63;
  - (b) paragraph 6(2) and (5) of schedule 1; and
  - (c) paragraphs 7 and 8 of schedule 1 to the extent that SEPA has not taken the steps required by paragraph 8.
  - (3) When they have made a determination under this schedule, the Scottish Ministers must—
    - (a) direct SEPA to grant or refuse (in whole or in part) the application; or
    - (b) where the determination relates to a SEPA initiated variation, either—
      - (i) affirm SEPA's decision (in whole or in part); or
      - (ii) direct SEPA to withdraw the variation.
  - (4) The Scottish Ministers may direct SEPA to grant an application subject to conditions.
  - (5) The Scottish Ministers must specify to SEPA the reasons for their determination.
  - 24. In this schedule—

"application" or "applications" includes reference to any matter which SEPA treats as having been made in terms of regulation 60 or 61;

"third party representation" means a written representation in respect of an application made to SEPA under paragraph 8.

SCHEDULE 2

Regulation 22(3)(b) and(7) and 62(7)

## OFF-SITE CONDITIONS

## PART 1

#### Procedure

- 1. For the purposes of this schedule SEPA imposes an off-site condition where it—
  - (a) grants a permit subject to an off-site condition;
  - (b) varies a permit—
    - (i) by including an off-site condition; or

- (ii) by varying an off-site condition; or
- (c) issues a notice under—
  - (i) regulation 46 (regulatory notice);
  - (ii) paragraph 14(2) of schedule 1 (surrender notice);
  - (iii) regulation 31 (revocation notices),

which includes an off-site condition.

- **2.**—(1) SEPA may impose an off-site condition for any of the purposes specified in subparagraph (2).
  - (2) The purposes specified are—
    - (a) where SEPA considers it necessary to impose an off-site condition to—
      - (i) prevent or mitigate environmental harm;
      - (ii) monitor the impact of the regulated activity on the environment or on human health; or
      - (iii) restore the environment affected or likely to be affected by the regulated activity; and
    - (b) where SEPA considers that—
      - (i) a condition of a permit has not been complied with; and
      - (ii) steps should be taken in order to remedy the non-compliance.
- **3.**—(1) Before imposing an off-site condition, SEPA must (so far as is reasonably practicable) give notice under this paragraph to every person appearing to SEPA to be a person to whom subparagraph (3) applies.
  - (2) The notice must—
    - (a) describe the proposed off-site condition;
    - (b) describe the nature of the works or actions which the authorised person under the permit may be required to carry out or complete to comply with the off-site condition; and
    - (c) state the representation period in relation to the condition, and the manner in which representations are to be made.
  - (3) This sub-paragraph applies to a person where—
    - (a) that person is the owner, tenant or occupier of land or property affected by the off-site condition; and
    - (b) rights will have to be granted by that person to the authorised person to enable the authorised person to comply with the proposed off-site condition.
- (4) A person notified in accordance with this paragraph may make representations to SEPA regarding the off-site condition during the period of 28 days beginning with the date on which notice is given ("the representation period").
- (5) SEPA must consider any representations made within the representation period before imposing an off-site condition.
- (6) Sub-paragraphs (4) and (5) do not apply where SEPA intends to issue a regulatory notice in circumstances where it considers that there is an imminent risk of environmental harm.
- **4.** Where SEPA imposes an off-site condition, it must provide a copy of the permit or notice containing the condition to every person specified in paragraph 3(3).

**5.** A person ("person A") whose consent is required for a person ("person B") to comply with an off-site condition must grant (or join in granting) person B such rights in relation to the land as are necessary for person B to comply with an off-site condition.

## PART 2

## Compensation for off-site conditions

- **6.** This Part applies in any case where either—
  - (a) (i) SEPA has imposed an off-site condition; and
    - (ii) a person has granted a right (an "off-site right") which, alone or together with any other right, is necessary to enable a person to comply with the off-site condition; or
  - (b) (i) a person whose consent would be required for SEPA to arrange for steps to be taken under regulation 62(1), (2) or (3) has granted an off-site right to SEPA under regulation 62(6); and
    - (ii) the off-site right, or that right together with any other right, is necessary to enable SEPA to arrange for those steps to be taken.
- 7. The person to whom an off-site right has been granted must pay compensation to the person who has granted the right.
- **8.** But where a person (other than SEPA) has failed to make payment in accordance with paragraph 7 ("the person liable")—
  - (a) the compensation is payable by SEPA; and
  - (b) SEPA is entitled to recover any payment of compensation made by it under this paragraph from the person liable.
  - 9. Subject to paragraph 12, compensation is payable for—
    - (a) depreciation in the value of any relevant interest which results from the grant of the offsite right;
    - (b) depreciation in the value of any other interest in land to which the grantor is entitled which results from the exercise of the off-site right;
    - (c) loss of or damage to a relevant interest which—
      - (i) is attributable to the grant of the off-site right or the exercise of that right;
      - (ii) does not consist of depreciation in the value of that interest; and
      - (iii) is loss or damage for which the grantor would have been entitled to compensation for disturbance if that interest had been acquired compulsorily under the Acquisition of Land (Authorisation Procedure) (Scotland) Act 1947(1) under a notice to treat served on the date on which the off-site right is granted;
    - (d) damage to, or injurious affection of, any interest in land to which the grantor is entitled which is not a relevant interest, and which results from the grant of the off-site right or the exercise of that right;
    - (e) loss in respect of work carried out by or on behalf of the grantor which is rendered abortive by the grant of off-site right or the exercise of that right;
    - (f) the amount of any valuation and legal expenses reasonably incurred by the grantor in—
      - (i) granting the off-site right; and

<sup>(1) 1947</sup> c.42.

- (ii) preparing the application for, and negotiating the amount of, compensation (up to the point of referral to the Lands Tribunal for Scotland under paragraph 14(2)).
- **10.**—(1) Subject to sub-paragraph (2), an entitlement to compensation under this schedule arises on the date of the grant of an off-site right.
- (2) The entitlement to compensation arises on the date of the final determination of the appeal where, after the grant of an off-site right, the condition of the permit which rendered the grant of that right necessary is upheld on an appeal against that condition.
- 11.—(1) An application for compensation under this schedule must be made by the person granting an off-site right within a period of—
  - (a) six months beginning with the date on which the off-site right is first exercised; or
  - (b) 12 months beginning with the date on which the entitlement to compensation arises in the case of that grantor,

#### whichever ends later.

- (2) An application must be made in writing to the person to whom the off-site right is granted at the last known address for correspondence of the person.
  - (3) The application must contain, or be accompanied by—
    - (a) a copy of the grant of the off-site right in respect of which the compensation is payable, and of any plans attached to that grant;
    - (b) a description of the exact nature of any interest in land in respect of which the compensation is payable;
    - (c) a statement of the amount of compensation applied for, distinguishing the amounts applied for under paragraph 9(a) to (f), and showing how the amount applied for under each subparagraph has been calculated; and
    - (d) where the date on which the entitlement to compensation arises is ascertained in accordance with paragraph 10(2), a copy of the notice of the final determination of the appeal.
- **12.**—(1) The amount to be paid by way of compensation must be assessed in accordance with this paragraph.
- (2) The rules set out in section 12 of the 1963 Act have effect, so far as applicable and subject to any necessary modifications, for the purposes of this paragraph as they have effect for the purpose of assessing compensation for the compulsory acquisition of an interest in land.
- (3) No account may be taken of any enhancement of the value of any interest in land, by reason of any building erected, work done or improvement or alteration made on any land in which the person granting the off-site right is (or was at the time of the enhancement) directly or indirectly concerned if—
  - (a) the enhancement was not reasonably necessary; and
  - (b) was undertaken with a view to obtaining compensation or increased compensation.
- (4) In calculating the amount of any loss under paragraph 9(e), expenditure incurred in the preparation of plans or on other similar preparatory matters must be taken into account.
- (5) Where the interest in respect of which compensation is to be assessed is subject to a standard security—
  - (a) the compensation is assessed as if the interest were not subject to that security;
  - (b) no compensation is payable to the creditor in respect of their interest in the land; and

- (c) any compensation payable in respect of the interest subject to the security must be paid to the—
  - (i) creditor in that security; or
  - (ii) if there is more than one creditor, to the first ranking of such creditors, provided that the sum paid must not be more than the sum due to the creditor, and must be applied by the creditor as if it were proceeds of sale.
- **13.**—(1) Compensation payable carries interest at the rate for the time being prescribed under section 40 of the 1963 Act from the date specified in sub-paragraph (2) until payment.
  - (2) The specified date is—
    - (a) in the case of compensation payable by virtue of paragraph 9(a) or (b), the date of depreciation;
    - (b) in the case of compensation payable by virtue of paragraph 9(c), (d) or (e), the date on which the loss is sustained or the damage done or, where injurious affection is sustained, the date of the injurious affection;
    - (c) in the case of compensation payable by virtue of paragraph 9(f), the date on which the expenses become payable.
- (3) If it appears to any person ("the first person") that the first person may become liable to pay to another person ("the second person") compensation or interest under this paragraph the first person may, if the second person requests the first person in writing to do so, make one or more payments on account of such compensation or interest.
  - (4) If, after a payment on account has been made under sub-paragraph (3)—
    - (a) it is agreed or determined that compensation or interest is not liable to be paid; or
    - (b) by reason of any agreement or determination, any payment under that sub-paragraph is shown to be excessive,
      - the payment or, as the case may be, excess is recoverable by the first person.
  - **14.**—(1) Compensation that is determined to be due is payable—
    - (a) where—
      - (i) the person to whom any off-site right was granted or, where compensation becomes payable by SEPA under paragraph 8, SEPA; and
      - (ii) the grantor or a creditor in a standard security,

agree that a single payment is to be made on a specified date, on that date;

- (b) where—
  - (i) the person to whom any off-site right was granted or, where compensation becomes payable by SEPA under paragraph 8, SEPA; and
  - (ii) the grantor or a creditor in a standard security,
  - agree that payment is to be made in instalments at different dates, on the date agreed as regards each instalment; or
- (c) in any other case, subject to any direction of the Lands Tribunal for Scotland, as soon as reasonably practicable after the amount of the compensation has been finally determined.
- (2) Any dispute in relation to the payment of compensation or interest must be referred to and determined by the Lands Tribunal for Scotland.
- (3) In relation to the determination of any such question, sections 9 and 11 of the 1963 Act apply as if—

**Draft Legislation:** This is a draft item of legislation. This draft has since been made as a Scottish Statutory Instrument: The Environmental Authorisations (Scotland) Regulations 2018 No. 219

- (a) the reference in section 9(1) of that Act to section 8 of that Act were a reference to sub-paragraph (2); and
- (b) references in section 11 of that Act to the acquiring authority were references to the person to whom any off-site right was granted.

#### 15. In this schedule—

- "1963 Act" means the Land Compensation (Scotland) Act 1963(2);
- "granted" includes joining in granting;
- "grantor" means a person mentioned in paragraph 5;
- "relevant interest" means an interest in land in respect of which rights have been granted by the grantor under paragraph 5; and
- "standard security" has the same meaning as in section 9 of the Conveyancing and Feudal Reform (Scotland) Act 1970(3).

## SCHEDULE 3

Regulation 38(1) and (4)

## **REGISTER**

## Table 1

#### Information to be included in the register

## Information

- 1. The particulars specified in regulation 12(3)(c) of any notification made to SEPA that a regulated activity is being, or is proposed to be, carried on.
- 2. Any application made to SEPA for a registration.
- 3. Any application made to SEPA for a permit.
- 4. Any application made to SEPA for variation of a permit or a registration.
- 5. Any application made to SEPA for transfer of a permit or registration.
- 6. Any application made to SEPA for surrender of a permit or registration.
- 7. Any modifications accepted by SEPA to an application.
- 8. Any notice of surrender of a notification received by SEPA.
- 9. Any application for consolidation of a permit or registration.
- 10. Any consultation carried out by SEPA
- 11 Any representations made to SEPA—
  - in response to a consultation by SEPA as part of its public participation functions;
     and
  - (b) where the person who made the representations requests these to be made available to the public at the time when representations are made.

<sup>(2) 1963</sup> c.51. The 1963 Act is amended by the Town and Country Planning (Scotland) Act 1997 (1997 c.8), schedule 15(I) paragraph 6, by the Community Land Act 1975 (1975 c.77), schedule 10, paragraph 5(1) and by the Planning and Compensation Act 1991 (1991 c.34) schedule 19, paragraph 1.

<sup>(3) 1970</sup> c.35.

#### Information

- 12. Any notice given to SEPA by an authorised person required by these Regulations.
- 13. Any permit or registration granted by SEPA.
- 14. Any variation, transfer, consolidation or surrender of a permit or registration made or granted by SEPA.
- 15. Any revocation by SEPA of an authorisation.
- 16. Any regulatory notice issued by SEPA.
- 17. Any costs recovery notice issued by SEPA.
- 18. Any fixed monetary penalty imposed by SEPA.
- 19. Any variable monetary penalty imposed by SEPA.
- 20. Any VMP undertaking accepted by SEPA.
- 21. Any non-compliance penalty imposed by SEPA.
- 22. Any enforcement undertaking accepted by SEPA.
- 23. Any certificate of non-compliance issued by SEPA.
- 24. Any notice served by SEPA withdrawing, varying or revoking another notice served by SEPA under these Regulations.
- 25. Any notice of appeal against a decision by or notice issued by SEPA.
- 26. The grounds of appeal submitted by the appellant.
- 27. Any correspondence between the appellant and SEPA in connection with the appeal.
- Any representations made by any person in response to a notice by SEPA under paragraph 6 of schedule 4 advising of an appeal, but only if, or to the extent that, the person requests that these be made available to the public at the time when the representations are made.
- 29. Any determination of an appeal, including any report accompanying a determination.
- 30. Any information relating to the monitoring of emissions or other parameters held by SEPA and provided by an authorised person in compliance with a condition of an authorisation.
- 31. Any other information given to SEPA in compliance with a condition of a permit or registration, or a general binding rule, or a notice.
- 32. Any information held by SEPA as a result of its monitoring of emissions or compilation of information relating to the environment, but only in so far as it relates to—
  - (a) emissions from a regulated activity; or
  - (b) the impact on the environment from a regulated activity.
- 33. Any licence, permit, registration or authorisation granted by SEPA which ceased to have effect on either—
  - (a) the coming into force of these Regulations; or
  - (b) the grant of an authorisation.
- 34. Any direction given to SEPA by Scottish Ministers under these Regulations.
- 35. The information referred to in paragraph 30(d) of schedule 8 (information relating to dose estimates).
- 36. Information relating to the regulation of radiation sources.

#### Information

- 37. Any outline of a radioactive substances activities programme of inspections (as defined in schedule 8).
- 38. A summary of the main findings from the implementation of the radioactive substances activities inspection report.
- 1. In this schedule, "fixed monetary penalty", "variable monetary penalty", "VMP undertaking", "enforcement undertaking", "non-compliance penalty" "certificate of non-compliance" and "notice of intent" have the same meaning as in the Environmental Regulation (Enforcement Measures) (Scotland) Order 2015(4).

#### **SCHEDULE 4**

Regulation 55(5)

#### PROVISIONS RELATING TO APPEALS

## PART 1

## Appeals procedure

- 1. A person who wishes to appeal under regulation 55 must give to the Scottish Ministers written notice of the appeal together with the documents specified in paragraph 2 and must at the same time send to SEPA a copy of that notice together with copies of the documents specified.
  - 2. The documents specified are—
    - (a) a written statement of the grounds of appeal;
    - (b) a copy of any relevant application;
    - (c) a copy of any relevant authorisation;
    - (d) a copy of any relevant correspondence between the appellant and SEPA; and
    - (e) a copy of any decision or notice which is the subject of the appeal.
- **3.** An appellant may withdraw an appeal by notice to the Scottish Ministers in writing, and must send a copy of that notice to SEPA.
  - **4.** Subject to paragraph 5, notice of appeal in accordance with paragraph 1 is to be given—
    - (a) in the case of an appeal in relation to a revocation notice issued under regulation 31, before the date on which the revocation notice takes effect;
    - (b) in the case of an appeal in relation to an application for an authorisation deemed to be withdrawn by SEPA under paragraph 6(3) or 8(3) of schedule 1, before the expiry of the period of 28 days beginning with the date of the notice of withdrawal which is the subject of the appeal;
    - (c) in the case of an appeal in relation to an information notice served under regulation 37, before the expiry of the period of 28 days beginning with the date of the notice of determination which is the subject of the appeal;
    - (d) in the case of an appeal by a person whose consent is required for the authorised person to comply with an off-site condition which has been included in an authorisation, before the

<sup>(4)</sup> S.S.I. 2015/383.

- expiry of the period of 28 days beginning with the date of the notice given to that person under paragraph 3 of schedule 2;
- (e) in the case of an appeal in relation to a decision by SEPA under regulation 41 or 42 that information is not commercially confidential, before the expiry of the period of 28 days beginning with the date of the notice of determination which is the subject of the appeal;
- (f) in the case of an appeal in relation to a regulatory notice served under regulation 46, before the expiry of the period of 28 days beginning with the day on which the notice which is the subject of the appeal was given;
- (g) in the case of an appeal in relation to a costs recovery notice served under regulation 51—
  - (i) before the expiry of the period of 28 days beginning with the date of the notice which is the subject of the appeal; or
  - (ii) if the appellant has requested a breakdown of costs under regulation 51(5), before the expiry of the period of 28 days beginning with the day after the day on which SEPA provided the breakdown;
- (h) before the expiry of the period of 2 months beginning with the date of the notice which is the subject of the appeal in the case of each of—
  - (i) an appeal in relation to a refusal of a permit or registration under paragraph 9 of schedule 1;
  - (ii) an appeal in relation to a deemed refusal of a permit or registration under paragraph 10(1) of schedule 1;
  - (iii) an appeal in relation to a refusal of an application to vary a permit under regulation 25;
  - (iv) an appeal in relation to the conditions attached to a permit under regulation 22 or 25;
  - (v) an appeal in relation to a refusal or deemed refusal of an application under regulation 27 to transfer a permit;
  - (vi) an appeal in relation to the conditions attached to an authorisation to take account of a transfer;
  - (vii) an appeal in relation to a refusal or a deemed refusal to transfer the duty to comply with a revocation notice under regulation 29;
  - (viii) an appeal in relation to a refusal or deemed refusal of an application under regulation 30 to surrender an authorisation;
  - (ix) an appeal in relation to a step specified in a surrender notice served by SEPA under paragraph 15 of schedule 1;
  - (x) an appeal in relation to the form of authorisation granted.
- **5.** The Scottish Ministers may in a particular case allow notice of appeal to be given after the expiry of the periods mentioned in paragraph 4.
- **6.** SEPA must, within 14 days of receipt of the copy of the notice of appeal sent in accordance with paragraph 1, give written notice of it to—
  - (a) where the appeal is against an matter which was subject to public consultation under paragraph 8 of schedule 1, any person who made a representation to SEPA in connection with the matter; and
  - (b) any other person whom SEPA considers it appropriate to notify.
  - 7. A notice under paragraph 6 must—
    - (a) describe the subject of the appeal;

- (b) include a statement that representations with respect to the appeal may be made to the Scottish Ministers in writing within a period of 21 days beginning with the date of the notice;
- (c) explain that any representations will be made available to the appellant;
- (d) explain that any representations will not be made available to the public under regulation 38 unless the person requests in writing at the time that representations are made that they are made available to the public and if the representations are not made available, SEPA will make available to the public confirmation that—
  - (i) a representation has been made; and
  - (ii) the person making the representation has requested the representation not to be made public; and
- (e) explain that if a hearing is to be held wholly or partly in public, a person who makes representations with respect to the appeal will be notified of the date of the hearing.
- **8.** SEPA must within 14 days of sending a notice under paragraph 6 notify the Scottish Ministers of the persons to whom and the date on which the notice was sent.
- **9.** In the event of an appeal being withdrawn, SEPA must give written notice of the withdrawal to every person to whom notice was given under paragraph 6.
- 10. SEPA must make any written representations to the Scottish Ministers not later than 28 days (or such longer period as may be set by the Scottish Ministers) after receiving a copy of the documents specified in paragraph 2.
- 11. The appellant must make any further written representations by way of reply to any representations from SEPA not later than 28 days (or such longer period as may be set by the Scottish Ministers) after receiving a copy of SEPA's representations.
- **12.** When SEPA or the appellant makes any representations to the Scottish Ministers they must at the same time send a copy of the representations to the other party.
- 13. The Scottish Ministers must send to the appellant and SEPA a copy of any representations made to them by persons to whom notice was given under paragraph 6 and must allow the appellant and SEPA a period of not less than 14 days in which to make written representations on them.
- **14.** The Scottish Ministers may require exchanges of written representations between the parties in addition to those mentioned in paragraphs 10 and 11.

## PART 2

## Public hearings

- **15.** Before determining an appeal under regulation 56, the Scottish Ministers may afford the appellant and SEPA an opportunity of appearing before and being heard by a person appointed by the Scottish Ministers (the "appointed person").
  - **16.** A hearing may, if the appointed person so decides, be held wholly or partly in private.
- 17. Where the Scottish Ministers cause a hearing to be held, they must give the appellant and SEPA at least 28 days' written notice (or such shorter period of notice as they may agree with the appellant and SEPA) of the date, time and place fixed for the holding of the hearing.
- **18.** Where any part of a hearing is to be held in public, the Scottish Ministers must, at least 21 days before the date fixed for the holding of the hearing—

- (a) publish notice of the date, time and place fixed for the holding of the hearing in a newspaper circulating in the locality in which the regulated activity which is the subject of the appeal is carried on or is to be carried on; and
- (b) give written notice of the date, time and place fixed for the holding of the hearing to every person who received notice under paragraph 6 and who has made representations to the Scottish Ministers.
- **19.** The Scottish Ministers may vary the date fixed for the holding of any hearing, and must give such notice of the variation as appears to them to be reasonable.
  - **20.** The persons entitled to be heard at a hearing are—
    - (a) the appellant; and
    - (b) SEPA.
- **21.** Nothing in paragraph 20 prevents the appointed person from allowing any other persons to be heard at the hearing and such permission must not be unreasonably withheld.
- **22.** The appointed person must cause notice of the time and place of the hearing to be given to persons appearing to him or her to be interested.
  - 23. The appointed person may—
    - (a) by notice in writing require—
      - (i) a person to attend a hearing, at a time and place stated in the notice, to give evidence;
      - (ii) a person to produce any documents, books or other data in the custody or under the control of the person which relate to any matter in question at the hearing; and
    - (b) take evidence on oath, and for that purpose administer oaths.
- **24.** But the appointed person may not require any person to produce any book or document or to answer any question which that person would be entitled, on the ground of privilege or confidentiality, to refuse to produce or to answer if the inquiry were a proceeding in a court of law.
- **25.**—(1) A person who is required to give evidence at a hearing or to produce any such books or other documents is entitled to have such reasonable expenses of attendance and production of books or other documents paid to him or her.
  - (2) The expenses are to be treated as part of the expenses of the hearing.
- **26.**—(1) The Scottish Ministers or the appointed person may treat as expenses incurred by them or him or her in relation to the hearing—
  - (a) the standard amount in respect of each day (or an appropriate proportion of that amount in respect of a part of a day) on which the hearing sits or the appointed person is otherwise engaged on work connected with the hearing;
  - (b) expenses actually incurred in connection with the hearing on travelling or subsistence allowances or the provision of accommodation or other facilities for the hearing;
  - (c) any expenses attributable to the appointment of an assessor to assist the appointed person;
  - (d) any legal expenses or disbursements incurred or made by or on behalf of the Scottish Ministers in connection with the hearing;
  - (e) the entire administrative expense of the hearing, including an amount as appears to the Scottish Ministers or the appointed person to be reasonable in respect of general staff expenses and overheads.
- (2) In sub-paragraph (1) "the standard amount" means such an amount, if any, as the Scottish Ministers may from time to time determine and make details of publicly available.

- 27.—(1) The Scottish Ministers or the appointed person may make an order as to the expenses incurred in relation to a hearing (including a hearing for which arrangements have been made and does not take place)—
  - (a) by the Scottish Ministers or the appointed person; and
  - (b) by the parties to the appeal.
  - (2) The order may specify the person or persons by whom any of the expenses must be paid.
- **28.**—(1) Where the Scottish Ministers or the appointed person make an order under paragraph 27 requiring a person to pay expenses, the Scottish Ministers or the appointed person must certify the amount of the expenses.
- (2) The amount certified is a debt due by that person to the Scottish Ministers or the appointed person and is recoverable accordingly.
- **29.** After the conclusion of a hearing, the appointed person must make a report to the Scottish Ministers in writing which must include the conclusions and recommendations of that person or the reasons for not making any recommendation.

## PART 3

## Determination of appeals

- **30.**—(1) The Scottish Ministers must—
  - (a) give written notice to the appellant of their determination of the appeal;
  - (b) provide the appellant with the reasons for their determination; and
  - (c) provide the appellant with a copy of any report mentioned in paragraph 29.
- (2) The Scottish Ministers must at the same time send a copy of the documents mentioned in sub-paragraph (1) to—
  - (a) SEPA;
  - (b) any person on whom notice was served under paragraph 6 and who made representations to the Scottish Ministers; and
  - (c) any other person who made representations in relation to the appeal at the hearing if a hearing was held.

SCHEDULE 5

Regulation 79

## TRANSITIONAL AND SAVINGS PROVISIONS

## PART 1

#### General

## Interpretation

1. In this schedule—

"contaminated materials activity" means a radioactive substances activity involving radioactive material where—

- (a) the material is contaminated, but not 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 be radioactive material; and
- (c) the radioactive material is kept on the premises on which the contamination occurred;
- "concluded" means for the purposes of paragraph 3, in relation to an application, that—
- (a) the application has been granted, refused or withdrawn; and
- (b) the period allowed for appeals has passed or an appeal has been determined or withdrawn; "concluded" means for the purposes of paragraph 4, in relation to an application, that—
- (a) the application has been granted or withdrawn; or
- (b) the application has been refused and the period allowed for appeals has passed or, where an appeal has been made during that period, the appeal has been determined or withdrawn:

"Exemption Order" means the Radioactive Substances Exemption (Scotland) Order 2011(5); "existing licence" means—

- (a) a registration made under section 7 or 10 of the 1993 Act; or
- (b) an authorisation granted under section 13 or 14 of the 1993 Act,

before the relevant date;

"new activity" means an activity being carried on immediately before the relevant date which is—

- (a) a regulated activity;
- (b) an activity which the person would have been able to lawfully carry on immediately before the relevant date without an existing licence; and
- (c) not—
  - (i) authorised by means only of being carried on in compliance with the general binding rules specified for the activity; or
  - (ii) a contaminated materials activity;

"relevant date" means the date these Regulations come into force in accordance with regulation 1;

"1993 Act" means the Radioactive Substances Act 1993(6);

"6 months date" means the date falling after a period of 6 months from the relevant date.

- 2.—(1) An existing licence which—
  - (a) is in effect immediately before the relevant date; and
  - (b) authorises an activity which is a regulated activity (within the meaning of these Regulations),

has effect on or after that date as if it were a permit (within the meaning of these Regulations) ("a deemed permit").

(2) In accordance with sub-paragraph (1)—

<sup>(</sup>**5**) S.S.I. 2011/147.

<sup>(6) 1993</sup> c.12.

- (a) any condition subject to which an existing licence is granted has effect as if it were a condition attached to the deemed permit;
- (b) the person who is—
  - (i) registered under section 7 or 10 of the 1993 Act; or
  - (ii) has been granted an authorisation under section 13 or 14 of the 1993 Act,

is to be treated as the authorised person in respect of the deemed permit on the relevant date;

- (c) where a person—
  - (i) is carrying on a contaminated materials activity; and
  - (ii) holds a deemed permit in relation to premises on which the contaminated materials activity is being carried on,

the carrying on of the contaminated materials activity is treated as authorised by the deemed permit in the period beginning with the relevant date and ending on the date on which SEPA next varies or consolidates the permit.

- (3) SEPA may revoke an existing licence under regulation 31 on the ground that SEPA considers that the authorised person is not in control of the carrying on of the activity no earlier than the 6 months date.
  - **3.**—(1) If before the relevant date a person—
    - (a) has applied for registration under section 7 of the 1993 Act;
    - (b) has applied for registration under section 10 of the 1993 Act;
    - (c) has applied for variation or cancellation of a registration under section 12 of the 1993 Act;
    - (d) has applied for authorisation under section 13 of the 1993 Act;
    - (e) has applied for authorisation under section 14 of the 1993 Act;
    - (f) has applied for transfer of an authorisation under section 16A of the 1993 Act;
- (g) has applied for variation or revocation of an authorisation under section 17 of the 1993 Act, and that application has not been concluded before the relevant date, sub-paragraph (2) applies.
- (2) Notwithstanding the repeal of the 1993 Act, the 1993 Act continues to have effect in relation to any application referred to in sub-paragraph (1) until the application is concluded.
- (3) A registration or authorisation made or granted by SEPA following an application referred to in paragraph 3(1)(a), (b), (d) or (e) is deemed to be an "existing licence" for the purposes of this schedule.
- **4.**—(1) This paragraph applies to a person ("A") carrying on a new activity immediately before the relevant date.
- (2) Where A is lawfully carrying on a new activity, other than one referred to in sub-paragraph (3), immediately before the relevant date, the activity is treated as authorised under these Regulations during the period beginning with the relevant date and ending on the date specified in sub-paragraph (4).
- (3) Where A is carrying on a new activity which, immediately before the relevant date, was exempted from the requirement to have an existing licence by the Exemption Order then, notwithstanding the repeal of the 1993 Act and the Exemption Order, the 1993 Act and the Exemption Order continue to have effect in relation to that activity during the period beginning with the relevant date and ending on the date specified in sub-paragraph (4).
  - (4) The date specified for the purposes of sub-paragraphs (2) and (3) is the later of—

- (a) the 6 months date; or
- (b) where an application for a permit or registration or for a variation of an existing licence, was accepted by SEPA before the 6 months date, the date on which the application is concluded.
- (5) Where SEPA requires a new activity being carried on by A to be authorised by means of notification, notwithstanding regulation 13(1), a notification made before the 6 months date has effect from the 6 months date.
- **5.**—(1) This paragraph applies to a person ("A") who has an existing licence to keep or use a sealed source which, as a result of the coming into force of these Regulations, is a high-activity sealed source ("an existing sealed source licence").
- (2) A must apply in accordance with regulation 25 for a variation of an existing sealed source licence before the 6 months date.
- (3) Where A fails to apply for a variation in accordance with sub-paragraph (2) before the 6 months date, the existing sealed source licence ceases to be a deemed permit on the 6 months date to the extent it relates to a high-activity sealed source.
- **6.** The 1993 Act continues to have effect notwithstanding its repeal in respect of any notice, investigation or legal proceedings made or begun before the relevant date and not concluded by that date (including for that purpose any penalty, punishment, enforcement measures or other sanction that may be accepted or imposed in respect of a failure to comply with a requirement of the 1993 Act before the relevant date).

#### PART 2

## Metal contamination

- 7.—(1) A permit for a Part A installation at which the activity described in paragraph (b)(iv) of Part A of section 5.4 of schedule 1 of the Pollution Prevention and Control (Scotland) Regulations 2012(7) is carried out includes the conditions specified in sub-paragraph (2).
  - (2) The specified conditions are—
    - (a) the operator must establish systems to detect the presence of radioactive contamination in materials received at the installation;
    - (b) the operator must inform SEPA promptly if it suspects, or has knowledge of, the presence of radioactive contamination in material at the installation (whether present in the material as received, as a result of melting of or other metallurgical operation on an orphan source or otherwise); and
    - (c) the operator must not dispose of any materials contaminated, or suspected to be contaminated, with radioactivity without approval from SEPA.
- (3) This paragraph applies in the period from the relevant date until the date that SEPA varies the permit so as to include the conditions specified in sub-paragraph (2).
  - (4) In this paragraph—
    - (a) "installation" and "permit" have the same meaning as given in regulation 2(1); and
- (b) "Part A installation" has the same meaning as given in regulation 12(1), of the Pollution Prevention and Control (Scotland) Regulations 2012.

<sup>(7)</sup> S.S.I. 2012/360.

#### SCHEDULE 6

Regulation 80

## CONSEQUENTIAL AMENDMENTS

## PART 1

## Public general acts

#### **Nuclear Installations Act 1965**

- 1.—(1) The Nuclear Installations Act 1965(8) is amended in accordance with sub-paragraphs (2) to (4).
  - (2) In section 3(14) (grant and variation of nuclear site licences)—
    - (a) in paragraph (b), omit "Scotland or";
    - (b) after paragraph (b) insert—
      - "(c) in relation to a site in Scotland, has the same meaning as in paragraph 5 of schedule 8 of the Environmental Authorisations (Scotland) Regulations 2018.".
- (3) In section 4(3)(d) (attachment of conditions to licences) after "(S.I. 2016/1154)", insert "or to the Environmental Authorisations (Scotland) Regulations 2018.".
  - (4) In section 4(7)—
    - (a) in paragraph (b), omit "Scotland or";
    - (b) after paragraph (b), insert—
      - "(c) in relation to a site in Scotland, has the same meaning as in paragraph 5 of schedule 8 of the Environmental Authorisations (Scotland) Regulations 2018.".

## **Environmental Protection Act 1990**

- **2.**—(1) The Environmental Protection Act 1990(9) is amended in accordance with subparagraphs (2) to (4).
  - (2) For section 75(2)(b) (meaning of "waste") substitute—
    - "(b) radioactive waste, as defined in paragraph 5 of schedule 8 of the Environmental Authorisations (Scotland) Regulations 2018, the disposal of which falls within one of the activities specified in column 1 of Part 1 of schedule 9 of those Regulations and can be carried on in accordance with the rules specified for that activity;".
- (3) In section 142(7) (powers to obtain information about potentially hazardous substances), for "Radioactive Substances Act 1993" substitute "Environmental Authorisations (Scotland) Regulations 2018".
- (4) In section 156(2) (power to give effect to EU and other international obligations etc.), for "Radioactive Substances Act 1993" substitute "Environmental Authorisations (Scotland) Regulations 2018".

<sup>(8) 1965</sup> c.57. Sections 3 and 4 are amended by the Energy Act 2013 (c.32) schedule 12 paragraph 18.

<sup>(9) 1990</sup> c.43. Section 75(2) is amended by the Waste (Scotland) Regulations 2011 (S.S.I. 2011/226) regulation 2(12). Section 142 is amended by (1) the Explosives Regulations 2014 (S.I. 2014/1638) schedule 13 paragraph 6(2) the Radioactive Substances Act 1993 (c.12) schedule 4 paragraph 8(3) the Human Medicines Regulations 2012 (S.I. 2012/1916) schedule 34 paragraph 41 and (4) the Veterinary Medicines Regulations 2006 (S.I. 2006/2407) schedule 9 paragraph 8(b). Section 156 is amended by (1) the Treaty of Lisbon (Changes in Terminology) Order 2011 (S.I. 2011/1043) Article 6(1)(e) and (2) the Radioactive Substances Act 1993 (c.12) schedule 4 paragraph 9.

#### **Environment Act 1995**

- 3. In section 42(3)(b) (Approval of charging schemes) of the Environment Act 1995(10)—
  - (a) for "under section 13(1) of the Radioactive Substances Act 1993" substitute "for radioactive substances activities under the Environmental Authorisations (Scotland) Regulations 2018"; and
  - (b) for "that Act" substitute "those Regulations".

#### Food Standards Act 1999

- **4.** In schedule 3 (the Food Standard Agency's functions under other enactments) of the Food Standards Act 1999(11) for paragraph 21 substitute—
  - "21.—(1) The Agency has the right to be consulted on the determination of any application for the grant or variation of an authorisation (including of any conditions to which the authorisation may be subject) under the Environmental Authorisations (Scotland) Regulations 2018 for the disposal of radioactive waste from any premises situated on a nuclear site.
  - (2) In sub-paragraph (1), "nuclear site" has the same meaning as in paragraph 4(1) of schedule 8 of the Environmental Authorisations (Scotland) Regulations 2018.".

#### **Energy Act 2004**

- **5.** For section 10(2)(b) (powers for carrying out functions) of the Energy Act 2004(12) substitute—
  - "(b) power to apply for and hold authorisations (within the meaning of the Environmental Authorisations (Scotland) Regulations 2018) that relate to radioactive substances activities (within the meaning given in regulation 4 of those Regulations);".

## PART 2

## Subordinate legislation

## **Special Waste Regulations 1996**

- **6.**—(1) The Special Waste Regulations 1996(**13**) are amended in accordance with sub-paragraphs (2) and (3).
- (2) In regulation 1(4) (citation, commencement, extent, application and interpretation), for sub-paragraph (b) in the definition of "waste" substitute—
  - "(b) radioactive waste within the meaning of paragraph 5 of schedule 8 of the Environmental Authorisations (Scotland) Regulations 2018 which can be managed in accordance with the general binding rules specified in schedule 9 of those Regulations (whether or not the management of the radioactive waste requires to be notified in accordance with those Regulations);".

<sup>(10) 1995</sup> c.25. Section 42(3) is amended by (1) the Greenhouse Gas Emissions Trading Scheme (Amendment) (Charging Schemes) Regulations 2012 (S.I. 2012/2788), regulation 6(3), and (2) the Food Standards Act 1999 (c.28), schedule 5, paragraph 44(2)(a) and schedule 6, paragraph 1.

<sup>(11) 1999</sup> c.28

<sup>(12) 2004</sup> c.20

<sup>(13)</sup> S.I. 1996/972. Regulation 1(4) is amended by the Waste (Scotland) Regulations 2011 (S.S.I. 2011/226), regulation 6(2)(c). Regulation 3 is amended by the Special Waste Amendment (Scotland) Regulations 2004 (S.S.I. 2004/112), regulation 2(6).

(3) In regulation 3 (certain radioactive waste to be special waste), for "Radioactive Substances Act 1993" substitute "Environmental Authorisations (Scotland) Regulations 2018".

## **Ionising Radiations Regulations 2017**

- 7. For regulation 31(2)(b) (notification of certain occurrences) of the Ionising Radiations Regulations 2017(14) substitute
  - in relation to Scotland was in accordance with an authorisation for a radioactive "(b) substances activity within the meaning given in regulation 4 of the Environmental Authorisations (Scotland) Regulations 2018.".

## Weighing Equipment (Automatic Gravimetric Filling Instruments) Regulations 2000

8. In schedule 3 (accuracy classes for filling instruments) of the Weighing Equipment (Automatic Gravimetric Filling Instruments) Regulations 2000(15) for "section 2 of the Radioactive Substances Act 1993" substitute "paragraph 5 of schedule 8 of the Environmental Authorisations (Scotland) Regulations 2018".

## Weighing Equipment (Automatic Rail-weighbridges) Regulations 2003

9. In schedule 3 (requirements relating to use) of the Weighing Equipment (Automatic Railweighbridges) Regulations 2003(16) for "section 2 of the Radioactive Substances Act 1993" substitute "paragraph 5 of schedule 8 of the Environmental Authorisations (Scotland) Regulations 2018".

#### Weighing Equipment (Automatic Catchweighing Instruments) Regulations 2003

10. In schedule 3 (requirements in respect of use and manner of use) of the Weighing Equipment (Automatic Catchweighing) Regulations 2003(17) for "section 2 of the Radioactive Substances Act 1993" substitute "paragraph 5 of schedule 8 of the Environmental Authorisations (Scotland) Regulations 2018".

## Waste Management Licensing (Scotland) Regulations 2011

- 11.—(1) The Waste Management Licensing (Scotland) Regulations 2011(18) are amended in accordance with sub-paragraphs (2) and (3).
- (2) In regulation 2(1) (interpretation), for sub-paragraph (b) in the definition of "waste" substitute—
  - "(b) radioactive waste within the meaning of paragraph 5 of schedule 8 of the Environmental Authorisations (Scotland) Regulations 2018 which can be managed in accordance with the general binding rules specified in schedule 9 of those Regulations (whether or not the management of the radioactive waste requires to be notified in accordance with those Regulations);".
- (3) In paragraph 38 of schedule 1 (activities exempt from waste management licensing), for "Radioactive Substances Act 1993", substitute "Environmental Authorisations (Scotland) Regulations 2018".

<sup>(14)</sup> S.I. 2017/1075.

<sup>(15)</sup> S.I. 2000/388.

<sup>(16)</sup> S.I. 2003/2454.

<sup>(17)</sup> S.I. 2003/2761.

<sup>(18)</sup> S.S.I. 2011/228. Regulation 2(1) is relevantly amended by the Radioactive Substances Act 1993 Amendment (Scotland) Regulations 2011 (S.S.I. 2011/207).

## Water Environment (Controlled Activities) (Scotland) Regulations 2011

- **12.** In schedule 10 (transitional and savings provisions) of the Water Environment (Controlled Activities) (Scotland) Regulations 2011(**19**) for paragraph 18(c)(ii) substitute—
  - "(ii) a permit or registration under the Environmental Authorisations (Scotland) Regulations 2018:".

## Environmental Regulation (Significant Environmental Harm) (Scotland) Order 2014

- **13.**—(1) The Environmental Regulation (Significant Environmental Harm) (Scotland) Order 2014(**20**) is amended in accordance with sub-paragraphs (2) and (3).
  - (2) In the schedule (specified enactments), omit—
    - (a) paragraph 7; and
    - (b) paragraph 14.
  - (3) After paragraph 18 of the schedule insert—
    - "19. The Environmental Authorisations (Scotland) Regulations 2018.".

#### Environmental Regulation (Relevant Offences) (Scotland) Order 2014

- **14.**—(1) The Environmental Regulation (Relevant Offences) (Scotland) Order 2014(**21**) is amended in accordance with sub-paragraphs (2) to (5).
- (2) In schedule 1 (relevant offences for the purposes of section 34 of the Regulatory Reform (Scotland) Act 2014 (compensation orders against persons convicted of relevant offences))—
  - (a) omit paragraph 3; and
  - (b) after paragraph 14 insert—
    - "15. An offence under any of the following provisions of the Environmental Authorisations (Scotland) Regulations 2018—
      - (a) regulation 69(1)(a) (contravention of regulation 7 (carrying on an activity otherwise than in accordance with an authorisation));
      - (b) regulation 69(1)(b) (contravention of regulation 8);
      - (c) regulation 69(1)(c) (failure to comply with or contravention of a general binding rule);
      - (d) regulation 69(1)(d) (failure to comply with or contravention of a condition of a registration);
      - (e) regulation 69(1)(e) (failure to comply with or contravention of a condition of a permit);
      - (f) regulation 69(1)(f) (failure to comply with the requirements of a regulatory notice);
      - (g) regulation 69(1)(g) (failure to comply with the requirements of a revocation notice);
      - (h) regulation 69(1)(i) (failure to comply with an order of a court); and

<sup>(19)</sup> S.S.I. 2011/209. Paragraph 18 is relevantly amended by the Pollution Prevention and Control (Scotland) Regulations 2012 (S.S.I. 2012/360) schedule 11, paragraph 25(2).

<sup>(20)</sup> S.S.I. 2014/324.

<sup>(21)</sup> S.S.I. 2014/319.

- (i) regulation 69(1)(m) (causing or permitting any other person to commit an offence), where the offence caused or permitted is an offence referred to in this paragraph."
- (3) In schedule 2 (relevant offences for the purposes of section 35 of the Regulatory Reform (Scotland) Act 2014 (fines: courts to consider financial benefits))—
  - (a) omit paragraph 5; and
  - (b) after paragraph 26 insert—
    - "27. An offence under any of the following provisions of the Environmental Authorisations (Scotland) Regulations 2018—
      - (a) regulation 69(1)(a) (contravention of regulation 7 (carrying on an activity otherwise than in accordance with an authorisation));
      - (b) regulation 69(1)(b) (contravention of regulation 8);
      - (c) regulation 69(1)(c) (failure to comply with or contravention of a general binding rule);
      - (d) regulation 69(1(d) (failure to comply with or contravention of a condition of a registration);
      - (e) regulation 69(1(e) (failure to comply with or contravention of a condition of a permit);
      - (f) regulation 69(1(f) (failure to comply with the requirements of a regulatory notice);
      - (g) regulation 69(1(g) (failure to comply with the requirements of a revocation notice);
      - (h) regulation 69(1)(h) (failure to comply with an information notice without reasonable excuse);
      - (i) regulation 69(1)(i) (failure to comply with an order by a court);
      - (j) regulation 69(1)(j) (making a false, misleading or reckless statement);
      - (k) regulation 69(1)(k) (making a false entry);
      - (l) regulation 69(1)(l) (forging a document); and
      - (m) regulation 69(1)(m) (causing or permitting any other person to commit an offence), where the offence caused or permitted is an offence referred to in this paragraph."
- (4) In schedule 3 (relevant offences for the purposes of section 36 of the Regulatory Reform (Scotland) Act 2014 (power to order conviction etc. for offence to be publicised))—
  - (a) omit paragraph 3; and
  - (b) after paragraph 14, insert—
    - "15. An offence under any of the following provisions of the Environmental Authorisations (Scotland) Regulations 2018—
      - (a) regulation 69(1)(a) (contravention of regulation 7 (carrying on an activity otherwise than in accordance with an authorisation));
      - (b) regulation 69(1)(b) (contravention of regulation 8);
      - (c) regulation 69(1)(c) (failure to comply with or contravention of a general binding rule):
      - (d) regulation 69(1(d) (failure to comply with or contravention of a condition of a registration);

- (e) regulation 69(1(e) (failure to comply with or contravention of a condition of a permit);
- (f) regulation 69(1(f) (failure to comply with the requirements of a regulatory notice);
- (g) regulation 69(1(g) (failure to comply with the requirements of a revocation notice);
- (h) regulation 69(1)(i) (failure to comply with an order by a court);
- (i) regulation 69(1)(j) (making a false, misleading or reckless statement);
- (j) regulation 69(1)(k) (making a false entry);
- (l) regulation 69(1)(l) (forging a document); and
- (m) regulation 69(1)(m) (causing or permitting any other person to commit an offence), where the offence caused or permitted is an offence referred to in this paragraph."
- (5) In schedule 4 (relevant offences for the purposes of sections 38 and 39 of the Regulatory Reform (Scotland) Act 2014 (vicarious liability and liability where activity carried out by arrangement with another)), after paragraph 9 insert—
  - "10. An offence under any of the following provisions of the Environmental Authorisations (Scotland) Regulations 2018—
    - (a) regulation 69(1)(a) (contravention of regulation 7 (carrying on an activity otherwise than in accordance with an authorisation));
    - (b) regulation 69(1)(c) (failure to comply with or contravention of a general binding rule);
    - (c) regulation 69(1(d) (failure to comply with or contravention of a condition of a registration);
    - (d) regulation 69(1(e) (failure to comply with or contravention of a condition of a permit);
    - (e) regulation 69(1)(j) (making a false, misleading or reckless statement);
    - (f) regulation 69(1)(k) (making a false entry);
    - (g) regulation 69(1)(l) (forging a document); and
    - (h) regulation 69(1)(m) (causing or permitting any other person to commit an offence), where the offence caused or permitted is an offence referred to in this paragraph."

# The Environmental Regulation (Liability where Activity Carried Out by Arrangement with Another) (Scotland) Order 2014

**15.** In the schedule (specified activities) of the Environmental Regulation (Liability where Activity Carried Out by Arrangement with Another) (Scotland) Order 2014(**22**), after paragraph 5 insert—

#### "Radioactive substances activity

- **6.**—(1) The carrying on of a radioactive substances activity.
- (2) In this paragraph, "radioactive substances activity" has the same meaning as given in regulation 4 of the Environmental Authorisations (Scotland) Regulations 2018.".

## **Environmental Regulation (Enforcement Measures) (Scotland) Order 2015**

- **16.**—(1) The Environmental Regulation (Enforcement Measures) (Scotland) Order 2015(**23**) is amended in accordance with sub-paragraphs (2) and (3).
- (2) In schedule 4 (relevant offences and fixed penalty amounts), in the Table omit the rows which relate to—
  - (a) section 32(1);
  - (b) section 33(1), (2) and (3); and
  - (c) section 34A(1) and (2),

of the Radioactive Substances Act 1993(24).

(3) In schedule 4, after the row "Regulation 41(5) (failing to produce a document or record)" insert the following rows to the Table—

"Environmental Authorisations (Scotland) Regula	"Environmental Authorisations (Scotland) Regulations 2018			
Regulation 69(1)(a) (contravention of regulation 7 (carrying on an activity otherwise than in accordance with an authorisation))	YES	YES	YES	MEDIUM
Regulation 69(1)(b) (contravention of regulation 8)	YES	YES	YES	MEDIUM
Regulation 69(1)(c) (failure to comply with or contravention of a general binding rule	YES	YES	YES	MEDIUM
Regulation 69(1)(d) (failure to comply with or contravention of a condition of a registration)	YES	YES	YES	MEDIUM
Regulation 69(1)(e) (failure to comply with or contravention of a condition of a permit)	YES	YES	YES	MEDIUM
Regulation 69(1)(f) (failure to comply with the requirements of a regulatory notice)	YES	YES	YES	MEDIUM
Regulation 69(1)(g) (failure to comply with the requirements of a revocation notice)	YES	YES	YES	MEDIUM
Regulation 69(1)(h) (failure to comply with an information notice)	YES	YES	YES	LOW
Regulation 69(1)(i) (failure to comply with an order of a court)	NO	NO	NO	
Regulation 69(1)(j) (making of a false, misleading or reckless statement)	YES	YES	YES	HIGH
Regulation 69(1)(k) (making a false entry)	YES	YES	YES	HIGH
Regulation 69(1)(l) (forging a document)	YES	YES	YES	HIGH
Regulation 69(1)(m) (causing or permitting any other person to commit an offence), where the person caused or permitted a person to commit an offence—				
(a) under regulation 69(1)(a), (b), (c), (d), (e), (f) or (g)	YES	YES	YES	MEDIUM

<sup>(23)</sup> S.S.I. 2015/383.

<sup>(</sup>**24**) 1993 c.12.

(b)	under regulation 69(1)(h)	YES	YES	YES	LOW
(c)	under regulation 69(1)(j), (k), or (l).	YES	YES	YES	HIGH".

#### Scottish Landfill Tax (Administration) Regulations 2015

- 17. In regulation 29(9) of the Scottish Landfill Tax (Administration) Regulations 2015(25) (bodies eligible for approval) for sub-paragraph (m) substitute—
  - "(m) a requirement imposed by the Environmental Authorisations (Scotland) Regulations 2018, or by a notice or order served, given, or made under those Regulations;".

# Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017

**18.** In entry 3(h) of the table in paragraph 2 of schedule 2 (descriptions of development and applicable thresholds and criteria for the purposes of the definition of "Schedule 2 development") of the Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017(**26**) for "Radioactive Substances Act 1993" substitute "Environmental Authorisations (Scotland) Regulations 2018".

#### SCHEDULE 7

Regulation 81

#### REPEALS AND REVOCATIONS

## PART 1

## Public general acts

1. The enactments listed in column 1 of the Table are repealed to the extent specified in column 3.

Legislation	Reference	Extent of repeal
1. Clean Air Act 1993	1993 c.11	Schedule 4, paragraph 6
2. Radioactive Substances Act 1993	1993 c.12	Sections 1 to 24, sections 26 to 28, sections 30 to 46 and schedules 1 to 6
3. Environment Act 1995	1995 c.25	Sections 21(1)(e), 21(2)(d), paragraphs (f) and (g) in the definition of "environmental waste" in section 56(1), paragraph (l) in the definition of "pollution control function" in section 108(15), section 114(2) (a)(vi), paragraph 8 of schedule 17, paragraph 6 of schedule 19 and paragraphs 202 to 206, 208

<sup>(25)</sup> S.S.I. 2015/3.

<sup>(26)</sup> S.S.I. 2017/102.

Legislation	Reference	Extent of repeal
		to 212, 214, 215, 217, 219, 220, 223, 224, 228 and 230 of schedule 22
4. Planning (Consequential Provisions) (Scotland) Act 1997	1997 c.11	Paragraph 54 of schedule 2
5. Food Standards Act 1999	1998 c.28	Paragraph 43(2) to (4) and (6) of schedule 5
6. Energy Act 2004	2004 c.20	Sections 72 to 75, and paragraphs 1 to 8 and 10 to 12 of schedule 15
7. Energy Act 2013	2013 c.32	Section 155(7)(d), and paragraphs 66 to 68 of schedule 12
8. Regulatory Reform (Scotland) Act 2014	2014 asp 3	Paragraphs 27 and 42 of schedule 3
9. Food (Scotland) Act 2015	2015 asp 1	Paragraph 5(2) and (3) of the schedule

## PART 2

## Subordinate legislation

2. The enactments listed in column 1 of the Table are revoked to the extent specified in column 3.

Legislation	Reference	Extent of revocation
1. The Radioactive Substances (Appeals) Regulations 1990	S.I. 1990/2504	The whole instrument
2. The Radioactive Substances (Records of Convictions) Regulations 1992	S.I. 1992/1685	The whole instrument
3. Radioactive Substances (Basic Safety Standards) (Scotland) Regulations 2000	S.S.I. 2000/100	The whole instrument
4. The High-activity Sealed Radioactive Sources and Orphan Sources Regulations 2005	S.I. 2005/2686	The whole instrument
5. The Water Environment (Consequential and Savings Provisions) (Scotland) Order 2006	S.S.I 2006/181	Paragraph 7 of Part IV of schedule 1
6. The Public Health etc. (Scotland) Act 2008 (Commencement No. 2, Savings and Consequential Provisions) Order 2009		Paragraph 5 of schedule 2

Legislation	Reference	Extent of revocation
7. The Radioactiv Act 1993 Amendm Regulations 2011	ve Substances S.S.I. 2011/207 nent (Scotland)	Regulations 4 and 6 to 9, and the schedule
8. The Radioactiv	ve Substances <i>S.S.I. 2011/147</i> Order 2011	The whole instrument

#### **SCHEDULE 8**

Regulation 6(3)

#### RADIOACTIVE SUBSTANCES ACTIVITIES

## PART 1

## Scope and interpretation

## Scope

- 1. Paragraph 2 applies for the interpretation of—
  - (a) this schedule;
  - (b) schedule 9; and
  - (c) the definition of radioactive substances activity.
- 2.—(1) "Radioactive substances activity" does not include—
  - (a) any activity involving radioactive material carried on by a licensee on a nuclear site;
  - (b) the transport of radioactive material or radioactive waste, including its receipt for transport and its storage during transport;
  - (c) the disposal of radioactive waste in the form of human excreta where—
    - (i) the radioactive waste arises as a consequence of the medical administration of radioactive material for the purpose of diagnosis, treatment or trials; and
    - (ii) the disposal occurs at a place other than the place of administration of the radioactive material:
  - (d) the disposal of radioactive waste at a site to which a PPC permit or waste management licence applies where—
    - (i) the radioactive waste may be disposed of in normal refuse in accordance with general binding rules; and
    - (ii) the radioactive waste has not been segregated from non-radioactive waste;
  - (e) the disposal of waste described in paragraph 6(1)(a) or (b) at a site to which a PPC permit or waste management licence applies where the activity of the waste does not exceed 5 becquerels per gram.
- (2) A radioactive substances activity is not being carried on by the owner or occupier of premises where radioactive material is present in or on a vehicle, vessel or aircraft and either—
  - (a) the vehicle, vessel or aircraft is on those premises in the course of a journey;
  - (b) the vehicle, vessel or aircraft is in its operational life; or

(c) in the case of a vessel which is on those premises otherwise than in the 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.

## Interpretation

#### 3.—(1) In this schedule—

"Basic Safety Standards Directive" means Council Directive 2013/59/Euratom laying down basic safety standards for protection against the dangers arising from exposure to ionising radiation and repealing Directives 89/618/Euratom, 90/641/Euratom, 96/29/Euratom, 97/43/Euratom and 2003/122/Euratom(27);

"IAEA Categories 1 to 4" means categories 1 to 4 as defined by the International Atomic Energy Agency in Categorisation of Radioactive Sources (RS-G-1.9)(28);

"local authority" means a council constituted under section 2 of the Local Government etc. (Scotland) Act 1994(29);

"medical exposure" means exposure incurred by patients or asymptomatic individuals as part of their own medical or dental diagnosis or treatment, and intended to benefit their health, as well as exposure incurred by carers and comforters and by volunteers in medical or biomedical research;

"occupational exposure" means exposure of workers, apprentices and students incurred in the course of their work;

"optimisation" means keeping the magnitude of individual doses, the likelihood of exposure and the number of individuals exposed as low as reasonably achievable taking into account the current state of technical knowledge and economic and social factors and related expressions are to be construed accordingly;

"orphan source" means a source containing radioactive material or radioactive waste which is neither—

- (a) subject to an authorisation; nor
- (b) on a nuclear site;

"PPC permit" means a permit granted under regulation 13 of the Pollution Prevention and Control (Scotland) Regulations 2012(30);

"public exposure" means the exposure of individuals resulting from—

- (a) the disposal of radioactive waste;
- (b) the introduction of radioactive material into organisms or the environment; or
- (c) the contamination of the environment,

but excluding any occupational or medical exposure;

"radiation protection expert" means an individual who has, or group of individuals who have, the knowledge, training and experience needed to give radiation protection advice in order to ensure the effective protection of individuals, and whose competence in that respect is recognised by SEPA;

"radioactive waste disposal notice" has the meaning given in paragraph 36;

"relevant liquid" means a liquid which-

<sup>(27)</sup> OJ L 13, 17.1.2014, p.1.

<sup>(28)</sup> Categorization of radioactive sources. — Vienna: International Atomic Energy Agency, 2005 (IAEA safety standards series, ISSN 1020–525X; ISBN 92–0–103905–0).

<sup>(29) 1994</sup> c.39. Section 2 was amended by schedule 22, paragraph 232(1), of the Environment Act 1995 (c.25).

<sup>(</sup>**30**) S.S.I. 2012/360.

- (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, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006(31) as having any of the following hazard classes and hazard categories (as defined in that Regulation)—
  - (i) acute toxicity: categories 1, 2 or 3;
  - (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;
- "relevant water authority" means —
- (a) Scottish Water; or
- (b) a district salmon fishery board established under section 14 of the Salmon Act 1986(32);
- "Table 1", "Table 2", "Table 3", "Table 4" and "Table 5" mean the tables with those numbers in Part 6;

- (2) Where any radionuclide carries the suffix "+" or "sec" in this schedule—
  - (a) that radionuclide represents the parent radionuclide in secular equilibrium with the corresponding daughter radionuclides which are identified in column 2 of Table 3 adjacent to the description of the parent radionuclide; and
  - (b) a concentration value given in a table in this schedule in relation to a parent radionuclide refers to the value for the parent radionuclide alone, but already takes into account the daughter radionuclides present.

## Interpretation: this schedule and schedule 9

- **4.**—(1) In this schedule and in schedule 9—
  - "disposal" includes—
  - (a) discharge (whether into the environment or into a sewer or drain);
  - (b) abandonment;
  - (c) burial;
  - (d) deposit;

"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;

<sup>&</sup>quot;unsealed source" means a radioactive source that is not a sealed source;

<sup>&</sup>quot;waste management licence" means a licence granted under section 35 of the Environmental Protection Act 1990(33).

<sup>(31)</sup> OJ L 353, 31.12.2008, p.1.

<sup>(32) 1986</sup> c.62. Section 14 is repealed in relation to specified areas by (1) the Scotland Act 1998 (River Tweed) Order 2006 (S.S.I. 2006/2913) schedule 4(2), paragraph 1 and (2) the Salmon and Freshwater Fisheries (Consolidation) (Scotland) Act 2003 (asp 15) schedule 4 paragraph 1.

<sup>(33) 1990</sup> c.43. Section 35 is amended by regulation 2(5) of the Waste (Scotland) Regulations 2011 (S.S.I. 2011/226), by the Environment Act 1995 (c.25) schedule 22 paragraph 66(2), by the Pollution Prevention and Control (Scotland) Regulations 2000 (S.S.I. 2000/323) schedule 10, Part 1, paragraph 3(4), and by the Regulatory Reform (Scotland) Act 2014 (asp 3) schedule 3, Part 1, paragraph 3(2).

"nuclear site licence", "licensee" and "period of responsibility" have the meanings given in section 26 of the Nuclear Installations Act 1965(34);

"radioactive substance" means radioactive material or radioactive waste.

- (2) For the purposes of this schedule and schedule 9, any substance or article which is discharged, discarded or otherwise dealt with as if it were waste is presumed to be waste unless the contrary is proved.
- (3) Any reference in this schedule, in schedule 5 or in schedule 9, to the contamination of a substance or article is a reference to its becoming radioactive or its possessing increased radioactivity as a result of either or both of—
  - (a) the absorption, admixture or adhesion of radioactive material or radioactive waste; and
  - (b) the emission of neutrons or ionising radiations.
- (4) Where any reference is made to a substance or article possessing a concentration of radioactivity which exceeds the value shown in a particular column of a table in this schedule or in schedule 9, that value is exceeded—
  - (a) where only one radionuclide which is included in that table is present in the substance or article, if the concentration of the radionuclide exceeds the concentration specified in the appropriate entry in the appropriate column of that table; or
  - (b) where more than one such radionuclide is present, if the sum of the quotient values of all the radionuclides in the substance or article, as determined by the summation rule following that table as it applies to that column, is greater than one.

## Interpretation: radioactive material and radioactive waste

5. In these Regulations—

"high-activity sealed source" means a sealed source where the activity of the contained radionuclide is equal to or exceeds the relevant activity value laid down in Table 4;

"radioactive material" means a substance or article which is not waste, and which satisfies the requirements of any of paragraphs 6, 7 or 8 as the paragraph applies to such a substance or article;

"radioactive waste" means a substance or article which is waste, and which satisfies the requirements of any of paragraph 6, 7 or 8; and

"sealed source" means a radioactive source in which the radioactive substance is permanently sealed in a capsule or incorporated in a solid form with the objective of preventing, under normal conditions of use, any dispersion of radioactive substances.

#### **NORM** industrial activity

- **6.**—(1) Sub-paragraph (2) applies to a substance or article which—
  - (a) arises from or is used in a NORM industrial activity; or
  - (b) is contaminated by a substance or article described in head (a), 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 solid substance or article or a relevant liquid substance, the value specified in column 2;

<sup>(34) 1965</sup> c.57. The Act is relevantly amended by the Energy Act 2013 (c.32) schedule 12, Part II, paragraphs 17 and 20.

- (b) for any other liquid substance, the value specified in column 3; or
- (c) for a gaseous substance, the value specified in column 4.
- (3) In this schedule, "NORM industrial activity" means an industrial activity involving radionuclides of natural, terrestrial or cosmic origin and includes the following industrial activities—
  - (a) production and use of thorium, or thorium compounds, and the production of products where thorium is deliberately added;
  - (b) production and use of uranium, or uranium compounds, and the production of products where uranium is deliberately added;
  - (c) extraction, production and use of rare earth elements and rare earth element alloys;
  - (d) mining and processing of ores other than uranium ore;
  - (e) production of oil and gas;
  - (f) removal and management of radioactive scales and precipitates from equipment associated with industrial activities;
  - (g) any industrial activity utilising phosphate ore;
  - (h) manufacture of titanium dioxide pigments;
  - (i) the extraction and refining of zircon and manufacture of zirconium compounds;
  - (j) production of tin, copper, aluminium, zinc, lead and iron and steel;
  - (k) activities related to coal mine de-watering plants;
  - (l) water treatment associated with provision of drinking water;
  - (m) the remediation of contamination from NORM industrial activities;
  - (n) china clay extraction; and
  - (o) geothermal energy production.
- (4) But "NORM industrial activity" does not include an activity where radionuclides of natural, terrestrial or cosmic origin are processed for their radioactive fissile or fertile properties.

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

- 7. A substance or article is radioactive material or radioactive waste where—
  - (a) it 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
    - (ii) is contaminated by a substance or article to which sub-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

**8.** 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) it 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) it is any other liquid or a gas.

#### Radionuclides with a short half-life

**9.** 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

- 10.—(1) A substance or article is not radioactive material or radioactive waste where—
  - (a) it 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.
- (2) In this paragraph, a "climatic process" includes wind, precipitation and the general circulation of the atmosphere and oceans.

# Substances or articles after disposal

- 11.—(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 head (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; 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 in the circumstances specified in sub-paragraph (4).
  - (3) The relevant start time—
    - (a) where the substance or article has been disposed of and—
      - (i) is solid at the time of the disposal;
      - (ii) is disposed of by abandonment, burial or deposit (whether underground or otherwise) on premises in accordance with an authorisation,

is the time of the revocation or surrender of that authorisation and where any conditions applied to a surrender notice have ceased to apply;

- (b) where the substance or article is contaminated by a substance or article to which head (a) applies, including where such contamination occurs indirectly through another contaminated substance or article, is the time of the revocation of the authorisation referred to in head (a)(ii); or
- (c) in relation to any other substance or article—
  - (i) is the time of the disposal; or
  - (ii) where the substance or article is one to which sub-paragraph (1)(b) applies, is the time of the disposal of the substance or article that caused it, directly or indirectly, to be contaminated.
- (4) Where, after the beginning of the excluded period, the relevant substance or article is subject to a process which leads to an increase in the radiation exposure of the public or any plant or animal, the excluded period ends at the time of that increase.

#### Historic radium contamination

- **12.** A substance or article is not radioactive material or radioactive waste where the substance or article arises from the remediation of land contaminated by radium and—
  - (a) the substance or article contains Ra-226 or its progeny;
  - (b) in the absence of Ra-226 or its progeny, the substance or article would not otherwise be radioactive material or radioactive waste;
  - (c) the contamination occurred prior to 13th May 2001; and
  - (d) the concentration of Ra-226 and any progeny resulting from the decay of Ra-226 does not exceed the following values—
    - (i) for a substance or article which is a solid or a substance which is a relevant liquid, 1 becquerel per gram;
    - (ii) for a substance which is any other liquid, 1 becquerel per litre; or
    - (iii) for a substance which is a gas, 0.01 becquerels per cubic metre.

# PART 2

# Amendments to common framework provisions

# **General Binding Rules – disapplication**

- **13.** A person carrying on a regulated activity specified in column 1 of Part 1 of schedule 9 in compliance with the general binding rules specified for that activity is not authorised under these Regulations where—
  - (a) the radioactive substance involved has been deliberately diluted to meet a value specified in schedule 9; or
  - (b) the person who generated the radioactive waste did not take all practicable measures available to minimise the quantity of radionuclides generated as waste.

# Authorisation by permit or registration

- **14.**—(1) SEPA may only authorise the activities to which sub-paragraph (2) applies by granting a permit.
  - (2) This sub-paragraph applies to—

- (a) the deliberate administration of radioactive substances to an animal for the purpose of veterinary diagnosis, treatment or research (in so far as the radiation protection of the public is concerned);
- (b) the management of radioactive waste on a nuclear site;
- (c) the management of radioactive waste at a uranium mine;
- (d) any activity involving a high-activity sealed source;
- (e) the operation, decommissioning and closure of a facility for the long term storage or disposal of radioactive waste;
- (f) the management of radioactive waste for the purpose of long term storage or disposal; and
- (g) the discharge of significant amounts of radioactive waste into the environment.

# **Applications**

- **15.**—(1) SEPA must ensure that information to be included in an application for a permit or registration for a radioactive substances activity is—
  - (a) relevant to radiation protection; and
  - (b) commensurate with the nature of the activity and the radiological risks involved.
- (2) In determining the information to be included in an application for a permit for a radioactive substances activity, SEPA must take into account the following for the purposes of ensuring adequate protection against public exposure—
  - (a) responsibility and organisational arrangements for protection and safety;
  - (b) staff competency, including information and training;
  - (c) design features of the premises and of radiation sources;
  - (d) anticipated public exposures in normal operation;
  - (e) safety assessment of the activity and the premises in order to—
    - (i) estimate, to the extent practicable, the probability and magnitude of a potential exposure;
    - (ii) assess the quality and extent of protection and safety provisions, including engineering features, as well as administrative procedures; and
    - (iii) define the operational limits and conditions of operation;
  - (f) emergency procedure;
  - (g) maintenance, testing, inspection and servicing so as to ensure that the radiation source and the premises continue to meet the design requirements, operational limits and conditions of operation throughout their lifetime;
  - (h) management of radioactive waste and arrangements for the disposal of such waste; and
  - (i) quality assurance.

#### Consultation: local authorities and relevant water authorities

**16.** Where it appears to SEPA that the disposal of radioactive waste is likely to involve the need for special precautions to be taken by a local authority or a relevant water authority, SEPA must consult the authority regarding the special precautions which may need to be taken before granting an authorisation.

### Consultation: security of sealed sources

- 17.—(1) SEPA must, insofar as it is reasonably practicable and before carrying out any of its functions under regulation 18, 19, 23, 25, 27, 30 or 31 in relation to an authorisation for an activity to which sub-paragraph (3) applies, consult—
  - (a) the police; and
- (b) such other persons as appear to it to be appropriate,

regarding the security of premises on which the activity is, or is proposed to be, carried on.

- (2) Where sub-paragraph (3) applies, SEPA must have regard to any advice it receives within such time as SEPA believes is reasonable from the police or other persons before—
  - (a) determining the authorisation or effecting any variation, surrender or revocation of the authorisation; or
  - (b) imposing any limitations or conditions in the authorisation.
- (3) This sub-paragraph applies to a radioactive substances activity involving sealed sources in IAEA categories 1 to 4.

# Refusal of applications

- **18.**—(1) SEPA must refuse to grant an application for a permit for a radioactive substances activity involving a high-activity sealed source unless it is satisfied that the applicant has made either—
  - (a) adequate arrangements for the safe management and control of the source, including arrangements for when it becomes waste; or
  - (b) adequate provision, by way of a financial provision or any other appropriate equivalent means, for the safe management of a source where—
    - (i) it becomes waste;
    - (ii) the authorised person becomes insolvent; or
    - (iii) the authorised person ceases to carry on the radioactive substance activities.
- (2) SEPA must refuse to grant an application for a permit for a radioactive substances activity involving a sealed source in IAEA Categories 1 to 4 unless it is satisfied that the applicant has made adequate arrangements for the security of the source.
- (3) Sub-paragraph (2) does not apply to an application involving a high-activity sealed source which is proposed to be managed only on a nuclear site.
- 19. SEPA must refuse to grant an authorisation for a radioactive substances activity unless the activity has been found to be justified within the meaning of the phrase "found to be justified" given in regulation 4(4) of the Justification of Practices Involving Ionising Radiation Regulations 2004(35).

# Authorisation conditions: general

- **20.** SEPA must ensure that a permit or registration for a radioactive substances activity includes such conditions as it considers appropriate to—
  - (a) prevent the deliberate dilution of radioactive waste for the purpose of being released from regulatory control unless the dilution takes place in normal operations where radioactivity is not a concern or the dilution is a result of mixing radioactive waste with a nonradioactive material for the purposes of re-use or recycling;

- (b) ensure adequate protection against any public exposure or contamination liable to extend—
  - (i) beyond the authorised place; or
  - (ii) to the ground beneath the authorised place;
- (c) ensure that the authorised person—
  - (i) optimises the level of radiation protection for members of the public;
  - (ii) uses adequate equipment and procedures for measuring and assessing exposure of members of the public and radioactive contamination of the environment;
  - (iii) checks that equipment used for measuring and assessing exposure of members of the public and radioactive contamination of the environment is effective and is adequately maintained and calibrated;
- (d) ensure that the authorised person seeks appropriate advice from a radiation protection expert in relation to—
  - (i) the matters set out in sub-paragraph (c); and
  - (ii) such other matters as SEPA thinks fit,
- (e) ensure that the authorised person makes arrangements for keeping control of radioactive material with regard to its location, use and, when it becomes radioactive waste, its management;
- (f) ensure, as appropriate and to the extent possible, that the authorised person keeps records of an unsealed source which the authorised person is authorised to hold, including records of location, transfer and disposal or discharge;
- (g) ensure that the authorised person keeps records of all sealed sources which the authorised person is authorised to hold, including records of location, transfer and disposal;
- (h) ensure that the authorised person informs SEPA promptly of any loss, theft, significant spill, or unauthorised use or release of radioactive material in the form of an unsealed source;
- (i) ensure that the authorised person informs SEPA promptly of a transfer of a high-activity sealed source;
- (j) ensure that the authorised person informs SEPA promptly of the loss, significant leakage, theft or unauthorised use of a sealed source:
- (k) ensure that the authorised person implements a recording and analysis system of significant events involving or potentially involving accidental or unintended public exposure to radioactivity;
- (l) ensure that in the event of the public exposure to radioactivity otherwise than in accordance with an authorisation, the authorised person—
  - (i) informs SEPA without delay;
  - (ii) carries out a full investigation into the event, and provides SEPA with the results of the investigation, without delay; and
  - (iii) takes corrective measures to avoid the recurrence of similar events; and
- (m) ensure that the authorised person makes adequate arrangements for the security of sealed sources.

# Authorisation conditions: discharge limits

**21.**—(1) SEPA must ensure that a permit or registration for a radioactive substances activity includes such conditions as it considers appropriate to apply limits for—

- (a) the discharge of radioactive waste; and
- (b) the introduction of radioactive material into the environment.
- (2) SEPA must for the purposes of setting conditions required by sub-paragraph (1)—
  - (a) take into account the results of any optimisation of radiation protection;
  - (b) reflect good practice in the operation of similar facilities; and
  - (c) take into account, where appropriate, the results of a generic screening assessment based on internationally recognised scientific guidance to demonstrate that environmental criteria for long-term human health protection are met.

#### **Authorisation conditions: monitoring**

- **22.**—(1) SEPA must ensure that a permit or registration for a radioactive substances activity to which sub-paragraph (3) applies includes such conditions as it considers appropriate to ensure—
  - (a) the authorised person carries out appropriate monitoring and evaluation of radioactive discharges into the environment in normal operation of the activity; and
  - (b) the results of the monitoring and evaluation are reported to SEPA.
- (2) For the purposes of sub-paragraph (1), where the radioactive substances activity is carried on a nuclear site, the permit or registration conditions imposed must require the monitoring of radioactive discharges and reporting to SEPA of such information on radioactive discharges as the Scottish Ministers direct.
- (3) This sub-paragraph applies to radioactive substances activities which involve either or both the—
  - (a) disposal of radioactive waste; or
  - (b) introduction of radioactive material to the environment.

# Authorisation conditions: high-activity sealed sources

- **23.** SEPA must ensure that a permit for a radioactive substances activity involving a high-activity sealed source includes such conditions as it considers appropriate to—
  - (a) ensure that the authorised person ascertains that, before a high activity sealed source is transferred, the transferee is legally entitled to hold the source;
  - (b) ensure the authorised person informs SEPA of the particulars (including the date, details of the source and identity and location of the transferee) of a transfer of a high-activity sealed source;
  - (c) set out requirements specifying—
    - (i) responsibilities;
    - (ii) minimum staff competency, including information and training;
    - (iii) minimum performance criteria for the source, source container and additional equipment;
    - (iv) emergency procedures and communication links;
    - (v) work procedures to be followed;
    - (vi) maintenance of equipment, sources and containers; and
    - (vii) adequate management of waste sources, including agreements regarding the transfer, if appropriate, of waste sources to a manufacturer, a supplier, another authorised person or a waste disposal or storage facility;
  - (d) require that the authorised person—

- (i) undertakes suitable tests, such as leak tests based on international standards, regularly in order to check and maintain the integrity of a source;
- (ii) regularly verifies at specific intervals that a source and, where relevant, the equipment containing the source, remain present and in apparently good condition at their place of use or storage;
- (iii) ensures that a source is subject to adequate documented measures, such as written protocols and procedures, aimed at preventing unauthorised access to or loss or theft of the source or its damage by fire;
- (iv) arranges for a check on the integrity of a source after any event, including fire, that may have damaged the source and notifies SEPA of the event and the measures taken;
- (v) promptly after a source becomes radioactive waste—
  - (aa) returns the source to the supplier;
  - (bb) places the source in a facility for long term storage or disposal; or
  - (cc) transfers it to another person;
- (vi) ensures that a source is accompanied by written information which—
  - (aa) confirms that the source is identified and marked with a unique number and that the number remains legible; and
  - (bb) includes photographs of the source, source container, transport packaging, device and equipment as appropriate; and
- (vii) makes adequate arrangements (including financial provision) for the safe management and control of the high-activity source.

### Authorisation conditions: manufacture and supply of high-activity sealed sources

- **24.** SEPA must ensure that a permit for a radioactive substances activity involving the manufacture or supply of a high-activity sealed source includes such conditions as it considers appropriate to—
  - (a) ensure that a source is identified by a unique number which, where practicable, must be engraved or stamped on the source;
  - (b) ensure either that a source container is engraved or stamped with the source's unique number or, if the container is a reusable transport container, that the container, at least, bears information on the nature of the source;
  - (c) ensure a source container and, where practicable, the source are marked and labelled with an appropriate sign to warn people of the radiation hazard; and
  - (d) require the manufacturer of the source to provide a photograph of each manufactured source design type and a photograph of the typical source container.

# Authorisation conditions: records of high-activity sealed sources

- **25.** SEPA must ensure that a permit for a radioactive substances activity involving a high-activity sealed source includes such conditions as it considers appropriate to require the authorised person—
  - (a) to keep records which include as a minimum the information set out in Table 5;
  - (b) to provide a copy of the records, or make a copy available, to SEPA on request;
  - (c) to provide SEPA with a copy of the records—
    - (i) after acquisition of a source;
    - (ii) if the information indicated on the records has changed; and

- (iii) if the authorised person is no longer holding the source; and
- (d) to provide SEPA with the details of any person or disposal or storage facility to which the source is transferred.

# PART 3

# **Duties of SEPA**

#### **Optimisation and dose limits**

- **26.**—(1) SEPA must exercise its relevant functions in relation to radioactive substances activities to ensure that the radiation protection of individuals subject to public exposures is optimised.
- (2) SEPA must exercise its relevant functions in relation to radioactive substances activities to ensure that the sum of doses to an individual does not exceed—
  - (a) an effective dose of 1 millisievert in a year;
  - (b) an equivalent dose for the lens of the eye of 15 millisieverts in a year;
  - (c) an equivalent dose for the skin of 50 millisieverts in a year, averaged over any 1 cm<sup>2</sup> of skin regardless of the area exposed.
- (3) In these Regulations, "effective dose" and "equivalent dose" have the same meaning as in the Basic Safety Standards Directive.
- (4) In order to estimate effective and equivalent doses, SEPA must use the values and relationships recommended in—
  - (a) chapters 4 and 5 of ICRP Publication 116(36) for the estimation of doses from external exposure; and
  - (b) chapter 1 of ICRP Publication 119(37) for the estimation of doses from internal exposure.

#### **Dose constraints**

- **27.**—(1) In carrying out its relevant functions in relation to radioactive substances activities, SEPA must have regard to the following maximum doses which may result from the planned carrying on of a radioactive substances activity, for use at the planning stage in radiation protection—
  - (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) For the purposes of sub-paragraph (1), the maximum doses do not apply to doses which arise from medical exposures.

### Estimation of doses to the members of the public

- **28.**—(1) SEPA must make arrangements for the estimation of doses to members of the public from radioactive substances activities.
- (2) The arrangements must be proportionate to the risk of exposure to radiation from the activities involved.

<sup>(36)</sup> ICRP, 2010. Conversion Coefficients for Radiological Protection Quantities for External Radiation Exposures. ICRP Publication 116, Ann. ICRP 40(2-5).

<sup>(37)</sup> ICRP, 2012. Compendium of Dose Coefficients based on ICRP Publication 60. ICRP Publication 119, Ann. ICRP 41(Suppl.)

#### 29. SEPA must—

- (a) identify radioactive substances activities for which an assessment of doses to members of the public is to be carried out; and
- (b) specify that an assessment may be carried out either—
  - (i) in a realistic way; or
  - (ii) by screening assessment.
- **30.** Where it has specified that an assessment must be carried out in a realistic way, SEPA must—
  - (a) decide on a reasonable extent of surveys to be conducted and information to be taken into account in order to identify the representative person, taking into account the effective pathways for transmission of the radioactive substances;
  - (b) decide on a reasonable frequency of monitoring of the relevant parameters as determined in sub-paragraph (a);
  - (c) ensure that the estimates of doses to the representative person include—
    - (i) assessment of the doses due to external radiation, indicating, where appropriate, the type of the radiation in question;
    - (ii) assessment of the intake of radionuclides, indicating the nature of the radionuclides and, where necessary, their physical and chemical states, and determination of the activity concentrations of these radionuclides in food and drinking water or other relevant environmental media; and
    - (iii) assessment of the doses that the representative person, as identified in subparagraph (a), is liable to receive; and
  - (d) keep records relating to—
    - (i) estimates of intakes of radionuclides; and
    - (ii) the results of the assessment of the doses received by the representative person.

# **Inspections**

- **31.**—(1) SEPA must establish and maintain a programme of inspections (a "radioactive substances activities programme of inspections") for each type of radioactive substances activity.
  - (2) The programme must take into account—
    - (a) the potential magnitude and nature of the hazard associated with each type of radioactive substances activity;
    - (b) a general assessment of radiation protection issues in radioactive substances activities; and
    - (c) the state of compliance with each of—
      - (i) these Regulations;
      - (ii) any authorisation.
- (3) SEPA must prepare a report (a "radioactive substances inspection report") on an inspection describing its findings from the inspection.
- (4) SEPA must communicate a radioactive substances inspection report to any authorised person SEPA considers appropriate.
- (5) SEPA must compile information ("radioactive substances protection and safety information") relating to the protection of human health and the environment, and the safety of the public concerning—
  - (a) significant lessons learned from inspections;

- (b) significant lessons learned from reported incidents and accidents; and
- (c) related findings.

### Record keeping

- **32.**—(1) SEPA must keep records of an authorisation granted for an activity involving a high-activity sealed source.
  - (2) The records must include details of—
    - (a) the radionuclide in the source;
    - (b) the radionuclide's activity at the time of manufacture or, if not known, the activity at the time of the first placing on the market or at the time the authorised person acquired the source; and
    - (c) the type of source.
  - (3) SEPA must keep the records up to date, including following transfer of a source.

#### **Sealed sources**

**33.** SEPA must establish a system to enable an authorised person to inform SEPA of a transfer of a high-activity sealed source.

# **Orphan Sources**

- **34.**—(1) SEPA must, for the purpose specified in sub-paragraph (2), promptly provide specialised technical advice and assistance to a person who—
  - (a) suspects the presence of an orphan source; and
  - (b) does not normally carry on radioactive substances activities.
  - (2) The purpose is to ensure—
    - (a) the protection of members of the public from radiation; and
    - (b) the safety of the source.
  - **35.**—(1) SEPA must have plans, preparations or provisions in place to—
    - (a) control and recover any orphan source; and
    - (b) deal with an emergency due to an orphan source.
- (2) The plans, preparations or provisions required by sub-paragraph (1) include the drawing up of appropriate response plans and measures.
- **36.**—(1) Where SEPA is satisfied that radioactive waste ought to be disposed of and it is unlikely that the waste will be disposed of in accordance with an authorisation on the grounds that either—
  - (a) the premises where the waste is located are unoccupied;
  - (b) the occupier is absent or insolvent;
  - (c) the occupier is a member of the public; or
  - (d) for any other reason,

SEPA may serve a notice ("a radioactive waste disposal notice") on a person requiring the person to dispose of the radioactive waste in a specified manner.

- (2) The person on whom SEPA may serve a radioactive waste disposal notice includes the occupier of the premises where the radioactive waste is located or, if the premises are unoccupied, the owner of the premises.
  - (3) A radioactive waste disposal notice must specify—
    - (a) the radioactive waste to be disposed of;
    - (b) the person who is required to dispose of the radioactive waste;
    - (c) the manner in which the radioactive waste is to be disposed of;
    - (d) the date by which the radioactive waste is to be disposed of; and
    - (e) the reasons why SEPA is satisfied that the radioactive waste is unlikely to be disposed of in accordance with an authorisation (which may include that the radioactive waste is on premises occupied by a member of the public).
- (4) This sub-paragraph applies where SEPA has served a radioactive waste disposal notice and the person on whom it was served has failed to comply with it (in whole or in part).
  - (5) Where sub-paragraph (4) applies, SEPA may—
    - (a) dispose of radioactive waste; and
    - (b) recover from the occupier of the premises, or, if the premises are unoccupied, from the owner of the premises, any expenses reasonably incurred from disposing of the waste.

# PART 4

# Local authorities

- **37.** Where an authorisation requires or permits radioactive waste to be removed to a place provided by a local authority as a place for the disposal of waste, the local authority must—
  - (a) accept any radioactive waste removed to that place in accordance with the authorisation; and
  - (b) deal with it in the manner indicated in the authorisation.
- **38.** Where a local authority or relevant water authority takes any special precautions in respect of radioactive waste disposed of in accordance with an authorisation, and those precautions are taken—
  - (a) in compliance with the conditions subject to which the authorisation was granted; or
  - (b) with the prior approval of SEPA as being precautions which in the circumstances ought to be taken by that authority,

the local authority or relevant water authority is entitled to make such charges, in respect of the taking of those precautions, as may be agreed between that authority and the person to whom the authorisation was granted, or, in default of such agreement, as may be determined by SEPA and to recover the charges so agreed or determined from the person to whom the authorisation was granted.

# PART 5

Radioactivity to be disregarded for purposes of certain statutory provisions

# **Statutory provisions**

**39.**—(1) No account is to be taken of any radioactivity possessed by any substance, article or premises for the purposes of—

- (a) the operation of a statutory provision to which sub-paragraph (2) applies; or
- (b) the exercise or performance of a power or duty conferred or imposed by, or for the enforcement of, such a statutory provision.
- (2) This paragraph applies to—
  - (a) the statutory provisions contained in, or for the time being having effect by virtue of—
    - (i) section 16 of the Clean Air Act 1993(38);
    - (ii) the Sewerage (Scotland) Act 1968(39);
    - (iii) the Planning (Hazardous Substances) (Scotland) Act 1997(40);
    - (iv) section 201 of the Local Government (Scotland) Act 1973(41);
    - (v) sections 30A and 56(1) and (2) of the Control of Pollution Act 1974(42);
    - (vi) sections 70, 71 and 75 of the Water (Scotland) Act 1980(43);
    - (vii) part III of the Environmental Protection Act 1990(44);
  - (b) any enactment for the time being in force whereby an enactment specified in head (a) is amended, extended or superseded; and
  - (c) any statutory provision contained in, or for the time being having effect by virtue of a local enactment whether passed or made before or after the passing of these Regulations (in whatever terms the provision is expressed) in so far as—
    - (i) the management of waste or any description of waste, or of any substance which is a nuisance, or so as to be a nuisance, or of any substance which is, or so as to be, prejudicial to health, noxious, polluting or of any similar description, is prohibited or restricted by the statutory provision; or
    - (ii) a power or duty is conferred or imposed by the statutory provision on SEPA, a local authority or a relevant water authority, or on any officer of a local authority, to take any action (whether by way of legal proceedings or otherwise) for preventing, restricting or abating such management of waste as is mentioned in sub-paragraph (i).
- (3) In this paragraph—

"statutory provision" means a provision, whether of a general or a special nature, contained in, or in any document made or issued under, any Act or Act of the Scottish Parliament, whether of a general or a special nature; and

"local enactment" means-

- (a) a local or private Act;
- (b) an Act of the Scottish Parliament the Bill for which was a private Bill for the purposes of the standing orders of the Scottish Parliament; or
- (c) an order confirmed by Parliament or the Scottish Parliament or brought into operation in accordance with special parliamentary procedure.
- (4) In this paragraph any reference to disposal, in relation to a statutory provision, is a reference to discharging or depositing a substance or allowing a substance to escape or to enter a stream or other place, as may be mentioned in that provision.

<sup>(38) 1993</sup> c.11.

<sup>(39) 1968</sup> c.47.

<sup>(40) 1997</sup> c.10.

<sup>(41) 1973</sup> c.65.

<sup>(42) 1974</sup> c.40. Section 30A was inserted by section 168 and paragraph 4 of schedule 23 of the Water Act 1989 (c.15).

<sup>(43) 1980</sup> c.45.

<sup>(44) 1990</sup> c.43.

PART 6
Tables
Table 1

# Concentration of radionuclides: NORM industrial activities

Radionuclide	Solid or relevant liquid concentration in becquerels per gram (Bq/g)	concentration	Gaseous concentration in becquerels per cubic metre (Bq/m³)
U-238sec	1	0.1	0.001
U-238+	5	10	0.01
U-234	5	10	0.01
Th-230	10	10	0.001
Ra-226+	1	1	0.01
Pb-210+	5	0.1	0.01
Po-210	5	0.1	0.01
U-235sec	1	0.1	0.0001
U-235+	5	10	0.01
Pa-231	5	1	0.001
Ac-227+	1	0.1	0.001
Th-232sec	1	0.1	0.001
Th-232	5	10	0.001
Ra-228+	1	0.1	0.01
Th-228+	1	1	0.001

<sup>&</sup>quot;The table 1 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 (as appropriate)—
  - (i) column 2 of Table 1 where the substance or article is a solid or a relevant liquid;
  - (ii) column 3 of Table 1 where the substance or article is any other liquid; or
  - (iii) column 4 of Table 1 where the substance or article is a gas.

Table 2

Concentration of radionuclides

Radionuclide	Concentration in becquerels per gram (Bq/g)
H-3	$10^{2}$
Be-7	10
C-14	10
F-18	10
Na-22	0.1
Na-24	1
Si-31	$10^3$
P-32	$10^3$
P-33	$10^3$
S-35	$10^2$
Cl-36	1
C1-38	10
K-42	$10^2$
K-43	10
Ca-45	$10^2$
Ca-47	10
Sc-46	0.1
Sc-47	$10^2$
Sc-48	1
V-48	1
Cr-51	$10^2$
Mn-51	10
Mn-52	1
Mn-52m	10
Mn-53	$10^2$
Mn-54	0.1
Mn-56	10
Fe-52+	10
Fe-55	$10^3$

Radionuclide	Concentration in becquerels per gram (Bq/g)
Fe-59	1
Co-55	10
Co-56	0.1
Co-57	1
Co-58	1
Co-58m	$10^4$
Co-60	0.1
Co-60m	$10^{3}$
Co-61	$10^2$
Co-62m	10
Ni-59	$10^2$
Ni-63	$10^{2}$
Ni-65	10
Cu-64	$10^2$
Zn-65	0.1
Zn-69	$10^3$
Zn-69m+	10
Ga-72	10
Ge-71	$10^{4}$
As-73	$10^3$
As-74	10
As-76	10
As-77	$10^3$
Se-75	1
Br-82	1
Rb-86	$10^2$
Sr-85	1
Sr-85m	$10^{2}$
Sr-87m	$10^2$
Sr-89	$10^3$
Sr-90+	1
Sr-91+	10

Radionuclide	Concentration in becquerels per gram (Bq/g)
Sr-92	10
Y-90	$10^{3}$
Y-91	$10^2$
Y-91m	$10^2$
Y-92	$10^2$
Y-93	$10^2$
Zr-93	10
Zr-95+	1
Zr-97+	10
Nb-93m	10
Nb-94	0.1
Nb-95	1
Nb-97+	10
Nb-98	10
Mo-90	10
Mo-93	10
Mo-99+	10
Mo-101+	10
Tc-96	1
Tc-96m	$10^{3}$
Tc-97	10
Tc-97m	$10^2$
Tc-99	1
Tc-99m	$10^2$
Ru-97	10
Ru-103+	1
Ru-105+	10
Ru-106+	0.1
Rh-103m	$10^4$
Rh-105	$10^2$
Pd-103+	$10^3$
Pd-109+	$10^2$
	10

Radionuclide	Concentration in becquerels per gram (Bq/g)
Ag-105	1
Ag-108m+	0.1
Ag-110m+	0.1
Ag-111	$10^{2}$
Cd-109+	1
Cd-115+	10
Cd-115m+	$10^2$
In-111	10
In-113m	$10^2$
In-114m+	10
In-115m	$10^2$
Sn-113+	1
Sn-125	10
Sb-122	10
Sb-124	1
Sb-125+	0.1
Te-123m	1
Te-125m	$10^{3}$
Te-127	$10^{3}$
Te-127m+	10
Te-129	$10^2$
Te-129m+	10
Te-131	$10^2$
Te-131m+	10
Te-132+	1
Te-133+	1
Te-133m+	1
Te-134	10
I-123	$10^{2}$
I-125	$10^2$
I-126	10
I-129	0.01

Radionuclide	Concentration in becquerels per gram $(Bq/g)$
I-130	10
I-131+	1
I-132	10
I-133	10
I-134	10
I-135	10
Cs-129	10
Cs-131	$10^{3}$
Cs-132	10
Cs-134	0.1
Cs-134m	$10^{3}$
Cs-135	$10^2$
Cs-136	1
Cs-137+	1
Cs-138	10
Ba-131	10
Ba-140	1
La-140	1
Ce-139	1
Ce-141	$10^2$
Ce-143	10
Ce-144+	10
Pr-142	$10^{2}$
Pr-143	$10^3$
Nd-147	$10^2$
Nd-149	$10^2$
Pm-147	$10^3$
Pm-149	$10^3$
Sm-151	$10^3$
Sm-153	$10^2$
Eu-152	0.1
Eu-152m	$10^2$

Radionuclide	Concentration in becquerels per gram (Bq/g)
Eu-154	0.1
Eu-155	1
Gd-153	10
Gd-159	$10^2$
Tb-160	1
Dy-165	$10^{3}$
Dy-166	$10^2$
Ho-166	$10^2$
Er-169	10 <sup>3</sup>
Er-171	$10^2$
Tm-170	$10^2$
Tm-171	$10^3$
Yb-175	$10^2$
Lu-177	$10^2$
Hf-181	1
Ta-182	0.1
W-181	10
W-185	$10^3$
W-187	10
Re-186	$10^{3}$
Re-188	$10^2$
Os-185	1
Os-191	$10^2$
Os-191m	$10^3$
Os-193	$10^2$
Ir-190	1
Ir-192	1
Ir-194	$10^2$
Pt-191	10
Pt-193m	$10^3$
Pt-197	$10^{3}$

Radionuclide	Concentration in becquerels per gram (Bq/g)
Pt-197m	$10^{2}$
Au-198	10
Au-199	$10^2$
Hg-197	$10^2$
Hg-197m	$10^2$
Hg-203	10
T1-200	10
Tl-201	$10^{2}$
T1-202	10
Tl-204	1
Pb-203	10
Pb-210+	0.01
Pb-212+	1
Bi-206	1
Bi-207	0.1
Bi-210	10
Bi-212+	1
Po-203	10
Po-205	10
Po-207	10
Po-210	0.01
At-211	$10^{3}$
Ra-223+	1
Ra-224+	1
Ra-225	10
Ra-226+	0.01
Ra-227	$10^2$
Ra-228+	0.01
Ac-227+	0.01
Ac-228	1
Th-226+	$10^2$
Th-227	1
Th-228+	0.1

Radionuclide	Concentration in becquerels per gram (Bq/g)
Th-229+	0.1
Th-230	0.1
Th-231	$10^{2}$
Th-232	0.01
Th-232+	0.01
Th-232sec	0.01
Th-234+	10
Pa-230	10
Pa-231	0.01
Pa-233	10
U-230+	1
U-231	$10^{2}$
U-232+	0.1
U-233	1
U-234	1
U-235+	1
U-235sec	0.01
U-236	10
U-237	$10^2$
U-238+	1
U-238sec	0.01
U-239	$10^{2}$
U-240+	$10^{2}$
Np-237+	1
Np-239	$10^{2}$
Np-240	10
Pu-234	$10^{2}$
Pu-235	$10^2$
Pu-236	1
Pu-237	$10^{2}$
Pu-238	0.1
Pu-239	0.1

Radionuclide	Concentration in becquerels per gram (Bq/g)
Pu-240	0.1
Pu-241	10
Pu-242	0.1
Pu-243	$10^3$
Pu-244+	0.1
Am-241	0.1
Am-242	$10^3$
Am-242m+	0.1
Am-243+	0.1
Cm-242	10
Cm-243	1
Cm-244	1
Cm-245	0.1
Cm-246	0.1
Cm-247+	0.1
Cm-248	0.1
Bk-249	$10^2$
Cf-246	$10^3$
Cf-248	1
Cf-249	0.1
Cf-250	1
Cf-251	0.1
Cf-252	1
Cf-253	$10^2$
Cf-253+	1
Cf-254	1
Es-253	$10^{2}$
Es-254+	0.1
Es-254m+	10
Fm-254	10 4
Fm-255	$10^2$
<b>-</b>	10

Radionuclide	Concentration in becquerels per gram
	(Bq/g)
	0.01 or that concentration which gives rise to a dose to a member of the public of 10 microsieverts per year calculated by reference to guidance by Euratom in RP 122 part 1(45).

<sup>&</sup>quot;The table 2 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 2 that is present in the substance or article; and
- (b) "B" means the quantity of that radionuclide specified in column 2 of Table 2.

Table 3

Radionuclides in secular equilibrium

Parent Radionuclide	Daughter Radionuclides
Fe-52+	Mn-52m
Zn-69m+	Zn-69
Sr-90+	Y-90
Sr-91+	Y-91m
Zr-95+	Nb-95m
Zr-97+	Nb-97m, Nb-97
Nb-97+	Nb-97m
Mo-99+	Tc-99m
Mo-101+	Tc-101
Ru-103+	Rh-103m
Ru-105+	Rh-105m
Ru-106+	Rh-106
Pd-103+	Rh-103m
Pd-109+	Ag-109m
Ag-108m+	Ag-108
Ag-110m+	Ag-110
Cd-109+	Ag-109m
Cd-115+	In-115m
Cd-115m+	In-115m
In-114m+	In-114
Sn-113+	In-113m

 $<sup>\</sup>textbf{(45)} \ \ European\ Commission: Guidance\ on\ General\ Clearance\ Levels\ for\ Practices,\ Radiation\ Protection\ 122,\ 2000.$ 

Parent Radionuclide	Daughter Radionuclides	
Sb-125+	Te-125m	
Te-127m+	Te-127	
Te-129m+	Te-129	
Te-131m+	Te-131	
Te-132+	I-132	
Te-133+	I-133, Xe-133m, Xe-133	
Te-133m+	Te-133, I-133, Xe-133m, Xe-133	
I-131+	Xe-131m	
Cs-137+	Ba-137m	
Ce-144+	Pr-144, Pr-144m	
Pb-210+	Bi-210, Po-210	
Pb-212+	Bi-212, Tl-208	
Bi-212+	Tl-208	
Ra-223+	Rn-219, Po-215, Pb-211, Bi-211, Tl-207	
Ra-224+	Rn-220, Po-216, Pb-212, Bi-212, Tl-208	
Ra-226+	Rn-222, Po-218, Pb-214, Bi-214, Po-214	
Ra-228+	Ac-228	
Ac-227+	Th-227, Fr-223, Ra-223, Rn-219, Po-215, Pb-211, Bi-211, Tl-207, Po-211	
Th-226+	Ra-222, Rn-218, Po-214	
Th-228+	Ra-224, Rn-220, Po-216, Pb-212, Bi-212, Tl-208	
Th-229+	Ra-225, Ac-225, Fr-221, At-217, Bi-213, Tl-209, Pb-209	
Th-232+	Ra-228, Ac-228, Th-228, Ra-224, Rn-220, Po-216, Pb-212, Bi-212, Tl-208	
Th-232sec	Ra-228, Ac-228, Th-228, Ra-224, Rn-220, Po-216, Pb-212, Bi-212, Po-212, Tl-208	
Th-234+	Pa-234m, Pa-234	
U-230+	Th-226, Ra-222, Rn-218, Po-214	
U-232+	Th-228, Ra-224, Rn-220, Po-216, Pb-212, Bi-212, Tl-208	
U-235+	Th-231	
U-235sec	Th-231, Pa-231, Ac-227, Th-227, Fr-223, Ra-223, Rn-219, Po-215, Pb-211, Bi-211, Tl-207, Po-211	
	11 207, 10 211	

Parent Radionuclide	Daughter Radionuclides
U-238sec	Th-234, Pa-234m, Pa-234, U-234, Th-230, Ra-226, Rn-222, Po-218, Pb-214, Bi-214, Po-214, Pb-210, Bi-210, Po-210
U-240+	Np-240m, Np-240
Np-237+	Pa-233
Pu-244+	U-240, Np-240m, Np-240
Am-242m+	Np-238
Am-243+	Np-239
Cm-247+	Pu-243
Cf-253+	Cm-249
Es-254+	Bk-250
Es-254m+	Fm-254

Table 4

Activity Levels defining high-activity sealed sources

Radionuclide	Activity (TBq)	
Am-241	6 × 10 –2	
Am-241/Be-9(1)	6 × 10 –2	
Cf-252	$2 \times 10 - 2$	
Cm-244	5 × 10 –2	
Co-60	3 × 10 –2	
Cs-137	$1 \times 10 - 1$	
Gd-153	1 × 10 0	
Ir-192	8 × 10 –2	
Pm-147	4 × 10 1	
Pu-238	6 × 10 –2	
Pu-239/Be-9 <sup>(1)</sup>	6 × 10 –2	
Ra-226	$4 \times 10 - 2$	
Se-75	$2 \times 10 - 1$	
Sr-90 (Y-90)	1 × 10 0	
Tm-170	2 × 10 1	
Yb-169	3 × 10 –1	

<sup>(1)</sup> The activity given is that of the alpha-emitting radionuclide.

Radionuclide	Activity (TBq)
Any other radionuclide	The D-value defined for that radionuclide in "Dangerous quantities of radioactive material (D-values)"(46)

<sup>(1)</sup> The activity given is that of the alpha-emitting radionuclide.

Table 5
Information to be provided in records for high-activity sealed sources

1. HASS identification number	2. Identification of the licenced undertaking	<ol> <li>Location of HASS (Use or storage) if not the same as in 2.</li> </ol>
Manufacturer device number	Name:	Name:
Field of use:	Address: Country:	Address: Country:
	Manufacturer □ Supplier □ User □	Fixed use □ Storage □ Mobile use □
Recording Date of start of recording: Date of transfer of records to historic files:	5. Licence Number: Date of issue: Date of expiry:	6. Operational controls of HASS Date: Date: Date:
7. HASS characteristics Fear of manufacture: Radionuclide: Activity at the date of manufacturing	8. Receipt of HASS  Date of receipt: Receipt from:	Date: Date:
Activity reference date: Manufacturer/Supplier (*): Name: Ountry:	Name: Address: Country: Manufacturer  Supplier  User	Date: Date: Date:
Physical and chemical characteristics Source type identification: (26 classification: 180 classification: 4NSI classification: ALEA source category: Neutron source: Yes \( \) No \( \)	9. Transfer of HASS Date of transfer: Transfer to: Name: Address: Country: Licence number: Date of issue: Date of expiry:	10. Further information   Loss
Neutron flux	Manufacturer □ Supplier □ User □	

# SCHEDULE 9

Regulation 10

# GENERAL BINDING RULES

# PART 1

# General binding rules

Column 1	Column 2
Activity	General Binding Rules
1. The management of a category 5 se	ealed (a) The radioactive substances common

source. The management of a category 5 sealed (a) The radioactive substances common rules;

<sup>(46)</sup> Published by the International Atomic Energy Agency in Vienna, Austria (publication date August 2006) (IAEA-EPR-D-Values 2006).

Column 1	Column 2		
Activity	General Binding Rules		
	(b)	a non-metallic category 5 sealed source must only be disposed of in normal refuse;	
	(c)	the activity of an individual category 5 sealed source disposed of must not	
	(1)	exceed $2 \times 10^5$ becquerels;	
	(d)	more than one source must not be	
	(e)	disposed of in any 0.1 m <sup>3</sup> of normal refuse; the total activity of category 5 sealed sources disposed of in normal refuse from premises in a year must not exceed 1 ×	
	(f)	10 <sup>7</sup> becquerels; a metallic category 5 sealed source must only be disposed of by landfill.	
2. The management of a smoke detector.	(a)	The total number of smoke detectors kept on a premises, and not affixed to the	
	(b)	premises, must not exceed 500. a smoke detector must be managed in a manner which prevents the dispersal of radionuclides;	
	(c)	a smoke detector must only be disposed	
	(d)	of in normal refuse; more than one smoke detector must not be disposed of in any 0.1 m <sup>3</sup> of normal refuse.	
3. The management of a tritium source.	(a)	The radioactive substances common rules;	
	(b)	the total activity of tritium sources, other than Class B gaseous tritium light devices and Class C gaseous tritium light devices, on a premises must not exceed $5 \times 10^{12}$	
	(c)	becquerels; the total activity of Class B gaseous tritium light devices and Class C gaseous tritium light devices on a premises must	
	(d)	not exceed $3 \times 10^{13}$ becquerels; a tritium source with an activity greater than $2 \times 10^{10}$ becquerels must not be disposed of;	
	(e)	a tritium source must only be disposed of in normal refuse;	
	(f)	more than one tritium source must not be disposed of in any 0.1 m <sup>3</sup> of normal refuse;	
	(g)	the total activity of tritium sources disposed of in normal refuse from a	

Column 1 Activity	Column 2 General Binding Rules	
		premises in a year must not exceed $1 \times 10^{13}$ becquerels.
4. The management (other than the disposal) of an electrodeposited source.	(a)	The radioactive substances common rules.
5. The management of a barium eluting source.	(a)	The radioactive substances common rules;
	(b)	the total activity of all barium eluting sources kept on a premises must not exceed $4 \times 10^5$ becquerels of Cs-137+;
	(c)	a waste barium eluting source must only be disposed of in normal refuse;
	(d)	more than one barium eluting source
		must not be disposed of in any 0.1 m <sup>3</sup> of normal refuse;
6. The management of a thorium alloy.	(a)	The radioactive substances common rules;
	(b)	a thorium alloy must only be disposed of by landfill.
7. The management of a uranium or thorium compound.	(a)	The radioactive substances common rules;
	(b)	a uranium or thorium compound which is solid waste must only be disposed of in normal refuse;
	(c)	the total quantity of uranium or thorium in a uranium or thorium compound disposed of from a premises in normal refuse must not exceed 0.5 kilogrammes per week;
	(d)	a uranium or thorium compound which is aqueous waste must be disposed of to a
	(e)	relevant sewer; the total quantity of uranium or thorium
		in a uranium or thorium compound disposed of from a premises to a relevant sewer must not exceed 0.5 kilogrammes per year.
8. The management of a medical or veterinary radioactive substance.	(a)	The radioactive substances common rules;
radioactive substance.	(b)	a medical or veterinary radioactive substance must only be—
	(i) (ii)	disposed of in normal refuse; or disposed into—
	(aa) (bb)	a relevant sewer; a river, which at the time of any disposal into it of aqueous radioactive waste has a flow rate which is not less than 1m <sup>3</sup> s <sup>-1</sup> ; or

Column 1	Column 2
Activity	General Binding Rules
	(cc) the see:

- (cc) the sea;
- (c) a single item of medical or veterinary radioactive waste must not be disposed of in normal refuse if its activity exceeds—
- (i)  $4 \times 10^5$  becquerels for tritium or C-14; or
- (ii)  $4 \times 10^4$  becquerels for any other radionuclide;
- (d) the total activity of medical or veterinary radioactive waste disposed of per 0.1 m<sup>3</sup> of normal refuse must not exceed—
- (i)  $4 \times 10^6$  becquerels for tritium or C-14; or
- (ii)  $4 \times 10^5$  becquerels for any other radionuclide;
- (e) the total activity of medical or veterinary waste disposed of in normal refuse from a premises in a year must not exceed—
- (i)  $2 \times 10^9$  becquerels for tritium or C-14; or
- (ii) 2 x 10<sup>8</sup> becquerels for any other radionuclide;
- (f) if the medical or veterinary waste consists of human excreta, the total activity of liquid aqueous waste disposed of from a premises to a relevant sewer in a year must not exceed—
- (i) 1 x 10<sup>10</sup> becquerels for Tc-99m; or
- (ii) 5 x 10<sup>9</sup> becquerels for the sum of all other radionuclides;
- (g) if the medical or veterinary waste does not consist of human excreta, the total activity of liquid aqueous waste disposed of from a premises to a relevant sewer in a year must not exceed—
- (i) 1 x 10<sup>8</sup> becquerels 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: or
- (ii) 1 x 10<sup>6</sup> becquerels for the sum of all other radionuclides;
- (h) if the waste does not consist of human excreta, the concentration of liquid aqueous waste disposed of from a

Column 1		Column 2		
Activity		General Binding Rules		
			premises to a relevant sewer must not exceed 100 becquerels per millilitre.	
	ne management (other than disposal) of a LM containing substance.	(a) (b) (c)	The radioactive substances common rules; the total activity of NORM containing substances transferred from a premises in a year to a person for disposal in a landfill must not exceed the value specified in column 3 of Table 1; the total activity of NORM containing substances transferred from a premises in a year to a person for incineration must not exceed the value specified in column 4 of Table 1.	
10. Twhic	The disposal of gaseous radioactive waste h—	(a)	The total amount of gaseous Kr-85 waste disposed of from premises in a year must	
(a) (b)	contains no radionuclides other than Kr-85; and arises from lamps containing Kr-85.	(b)	not exceed $1 \times 10^{11}$ becquerels; gaseous Kr-85 waste must be adequately dispersed from the building in which it arose so that it does not enter, or re-enter, a building.	
11. Any other radioactive substances activity, not falling within any other activity description in this schedule, where—		(a)	The radioactive substances common rules;	
(a)	the total activity of a radionuclide does not exceed the value specified in column 2 of Table 2; or	(b)	a solid radioactive substance must only be disposed of in normal refuse;	
(b)	the concentration of radioactivity of a radionuclide does not exceed the value specified in column 3 of Table 2.	(c)	a single item of radioactive waste must not be disposed of in normal refuse if it exceeds—	
		(i) (ii)	$4 \times 10^5$ becquerels for tritium or C-14; or $4 \times 10^4$ becquerels for any other radionuclide;	
		(d)	the total activity of radioactive substances disposed of per 0.1 m³ of normal refuse must not exceed—	
		(i) (ii)	$4 \times 10^6$ becquerels for tritium or C-14; or $4 \times 10^5$ becquerels for any other radionuclide;	
		(e)	an aqueous liquid radioactive substance must only be disposed of into—	

(i)

a relevant sewer;

Column 1 Activity	Column 2 General Binding Rules
·	(ii) a river, which at the time of any disposal into it of aqueous radioactive waste has a flow rate which is not less than 1m <sup>3</sup> s <sup>-1</sup> ; or (iii) the sea;
	(f) the total activity of liquid aqueous radioactive waste disposed of from a premises in a year must not exceed—
	<ul> <li>(i) 1 x 10<sup>8</sup> becquerels 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, T1-201; or</li> <li>(ii) 1 x 10<sup>6</sup> becquerels for the sum of all other radionuclides;</li> </ul>
	<ul> <li>(g) the concentration of liquid aqueous radioactive waste disposed of from a premises must not exceed 100 becquerels per millilitre;</li> <li>(h) gaseous waste must not be disposed of unless—</li> </ul>
	<ul> <li>(i) it consists of fugitive releases from a container; and</li> <li>(ii) it is dispersed from a building in such a way that it does not enter or re-enter a building.</li> </ul>

# PART 2

# Interpretation of general binding rules

### 1. In this schedule—

"barium eluting source" means a source which—

- (a) consists of Cs-137+ in a sealed container which is designed and constructed to allow the elution of Ba-137m;
- (b) is radioactive material or radioactive waste solely because of that Cs-137+; and
- (c) does not contain an activity exceeding  $4 \times 10^4$  becquerels of Cs-137+;

"category 5 sealed source" means a source, or an aggregate of sources, that would fall within category 5 as defined by the International Atomic Energy Agency in Categorisation of Radioactive Sources (RS-G-1.9)(47);

"Class A gaseous tritium light device" means such a device where the activity of the device does not exceed  $2 \times 10^{10}$  becquerels of tritium;

<sup>(47)</sup> INTERNATIONAL ATOMIC ENERGY AGENCY, Categorization of Radioactive Sources, IAEA Safety Standards Series No. RS-G-1.9, IAEA, Vienna (2005).

- "Class B gaseous tritium light device" means such a device which is installed or intended to be installed on premises and where the activity—
- (a) in each sealed container in the device does not exceed  $8 \times 10^{10}$  becquerels of tritium; and
- (b) of the device does not exceed  $1 \times 10^{12}$  because of tritium;
- "Class C gaseous tritium light device" means such a device installed or intended to be installed—
- (a) in a vessel or aircraft: or
- (b) in a vehicle or other equipment used or intended to be used by the armed forces of the Crown;
- "disposed of in normal refuse" means disposed of with substantial quantities of non-radioactive waste for landfill or incineration or composting where the radioactive waste will be mixed with such non-radioactive waste for the purposes of such burial, incineration or recovery;
- "electrodeposited source" means an article where radionuclides are electrodeposited onto a metal substrate and which is radioactive material or radioactive waste solely because it contains Ni-63 or Fe-55 the total activity of which does not exceed—
- (a)  $6 \times 10^8$  becquerels of Ni-63; or
- (b)  $2 \times 10^8$  becquerels of Fe-55;
- "gaseous tritium light device" means a sealed source (or such a source which has become broken) which incorporates tritium in a device which is an illuminant, instrument, sign or indicator;
- "luminised article" means an article other than a sealed source—
- (a) which is made wholly or partly from a luminescent substance in the form of a film or a paint;
- (b) the activity of which does not exceed  $4 \times 10^9$  becquerels;
- "manage" means any activity involving radioactive material or radioactive waste except the production of radionuclides or the manufacture of radioactive sources and related expressions are to be construed accordingly;
- "medical or veterinary radioactive substance" means radioactive material or radioactive waste (other than a sealed source) which is intended for use, is used, or arises from medical or veterinary diagnosis or treatment or clinical or veterinary trials;
- "relevant sewer" means—
- (a) a public sewer; or
- (b) a private sewer which leads to a sewage treatment works that—
  - (i) has the capacity to handle a minimum of 100m<sup>3</sup> of sewage per day; and
  - (ii) discharges treated sewage only to the sea, to a tidal estuary or to a river that has a flow rate of not less than 1m<sup>3</sup>s<sup>-1</sup>:
- "sea" includes any area submerged at mean high water springs and also includes, so far as the tide flows at mean high water springs, an estuary or arm of the sea and the waters of any channel, creek, bay or river;
- "sealed source" means a radioactive source in which the radioactive substance is permanently sealed in a capsule or incorporated in a solid form with the objective of preventing, under normal conditions of use, any dispersion of radioactive substances;

"sewer", "public sewer", "private sewer", "sewage treatment works" and "sewage" have the same meanings as in section 59(1) of the Sewerage (Scotland) Act 1968(48);

"smoke detector" means a smoke detector incorporating a sealed source the total activity of which does not exceed  $4 \times 10^4$  becquerels;

"Table 1" and "Table 2" mean the tables with that number in Part 3;

"thorium alloy" means a substance or article which is, or contains—

- (a) magnesium alloy;
- (b) thoriated tungsten; or
- (c) dross from hardener alloy,

in which the thorium content does not exceed 4% by mass;

"a tritium foil source" means an article which has a mechanically tough surface into which tritium is incorporated the total activity of which does not exceed  $2 \times 10^{10}$  becquerels;

"tritium source" means radioactive material or radioactive waste which contains no radionuclides except for tritium and which is either—

- (a) a gaseous tritium light device;
- (b) a sealed source;
- (c) a tritium foil source; or
- (d) a luminised article;

"uranium or thorium compound" means a substance or article which is radioactive material or radioactive waste solely because it is or contains metallic uranium or thorium or prepared compounds of uranium or thorium, and in respect of which metal or compound the proportion of—

- (a) U-235 in the uranium it contains is no more than 0.72% by mass; and
- (b) any isotope of thorium it contains is present in the isotopic proportions found in nature.

# **Interpretation: NORM**

- **2.**—(1) In this schedule, "NORM containing substance" means a solid substance or article which—
  - (a) is either—
    - (i) radioactive material or radioactive waste under paragraph 6(2) of schedule 8; or
    - (ii) except where sub-paragraph (2) applies, radioactive waste under paragraph 7 of schedule 8 arising from the remediation of land contaminated by radium;
  - (b) contains one or more of the radionuclides which are listed in column 1 of Table 1; and
  - (c) has a concentration of radioactivity that does not exceed the value specified in column 2 of Table 2 in respect of that radionuclide.
- (2) Land is not contaminated under sub-paragraph (1)(a)(ii) unless the contamination occurred prior to 13th May 2000.

# Interpretation: radioactive substances common rules

**3.**—(1) In this schedule, "radioactive substances common rules" means the following rules—

<sup>(48) 1968</sup> c.47 as relevantly amended by the Water Industry (Scotland) Act 2002 (asp 3), schedule 5, paragraph 41(b)(iv) and the Water Environment and Water Services (Scotland) Act 2003 (asp 3), schedule 3, paragraph 23(a).

- (a) a radioactive substance must be managed in a manner which prevents the reckless or accidental dispersal of radionuclides and, in the case of a sealed source, which prevents any dispersal of radionuclides;
- (b) a radioactive substance must be managed safely and securely to minimise the risk of—
  - (i) unauthorised or accidental use;
  - (ii) loss; and
  - (iii) theft;
- (c) records of a radioactive substance must be kept—
  - (i) from receipt of a radioactive substance until at least 2 years after the date of its transfer or disposal;
  - (ii) which include, as a minimum, a description of each source, article or radioactive substance, the location where it is normally kept or used, details of any transfer, and details of any disposal;
- (d) where practicable, a radioactive substance must be marked or labelled as radioactive but any labelling or marking must be removed before it is disposed of in normal refuse;
- (e) SEPA must be promptly notified of a loss or theft (or suspected loss or theft) of radioactive substances where the total amount of radioactive substances lost or stolen (or suspected to have been lost or stolen) from the premises, together with the amount of other substances lost or stolen from the premises in the preceding 12 months, exceeds the value that is ten times the value for the relevant radionuclide in column 3 of Table 2;
- (f) a radioactive substance must not be transferred to a person who is not legally entitled to manage it;
- (g) a radioactive substance must be transferred or disposed of as soon as practicable after it becomes waste.

Tables

Table 1

# NORM waste concentrations and maximum disposal quantities

PART 3

Radionuclide	NORM concentration	NORM total activity for landfill	NORM total activity for incineration	
	(Bq/g)			
		(GBq/year)	(MBq/year)	
U-238sec	5	50	100	
U-238+	5	50	100	
U-234	5	50	100	
Th-230	5	50	100	
Ra-226+	5	50	100	
Pb-210+	100	1000	100	
Po-210	100	1000	100	

Radionuclide	NORM concentration	NORM total activity for landfill	NORM total activity for incineration
	(Bq/g)	(GBq/year)	(MBq/year)
U-235sec	5	50	100
U-235+	5	50	100
Pa-231	5	50	100
Ac-227+	5	50	100
Th-232sec	5	50	100
Th-232	5	50	100
Ra-228+	5	50	100
Th-228+	5	50	100

The summation rule in respect of column 2 of Table 1 is the sum of the quotients A/B where—

- (a) "A" means the concentration of each radionuclide listed in column 1 of Table 1 that is present in the radioactive waste; and
- (b) "B" means the concentration of that radionuclide specified in column 2 of Table 1.

The summation rule in respect of columns 3 and 4 of Table 1 is the sum of the quotients C/D where—

- (a) "C" means the quantity of each radionuclide listed in column 1 of Table 1 that is present in the radioactive waste; and
- (b) "D" means the quantity of that radionuclide specified in column 3 or 4 (as appropriate) of Table 1.

Table 2

Table of radionuclide activity values

Radionuclide	Activity Concentration	Activity (becquerels)
	(kilobecquerels per kilogram <sup>(1)</sup> )	
H-3	$1 \times 10^{6}$	1 × 10 <sup>9</sup>
Be-7	$1 \times 10^3$	$1 \times 10^7$
C-14	$1 \times 10^4$	$1 \times 10^7$
O-15	$1 \times 10^2$	$1 \times 10^9$
F-18	$1 \times 10^1$	$1 \times 10^6$
Na-22	$1 \times 10^1$	$1 \times 10^6$
Na-24	$1 \times 10^1$	$1 \times 10^5$
Si-31	$1 \times 10^3$	$1 \times 10^6$

<sup>(1)</sup> Potassium salts in quantities less than 1000kg are exempted.

<sup>(2)</sup> National Radiological Protection Board, Didcot (United Kingdom) 1999.

Radionuclide	Activity Concentration	Activity (becquerels)
	(kilobecquerels per kilogram <sup>(1)</sup> )	
P-32	1 × 10 <sup>3</sup>	1 × 10 <sup>5</sup>
P-33	$1 \times 10^5$	$1 \times 10^8$
S-35	$1 \times 10^5$	$1 \times 10^8$
C1-36	$1 \times 10^4$	$1 \times 10^6$
C1-38	$1 \times 10^{1}$	$1 \times 10^5$
Ar-37	$1 \times 10^6$	$1 \times 10^8$
Ar-41	$1 \times 10^2$	$1 \times 10^9$
$K-40^{(1)}$	$1 \times 10^2$	$1 \times 10^6$
K-42	$1 \times 10^2$	$1 \times 10^6$
K-43	$1 \times 10^1$	$1 \times 10^6$
Ca-45	$1 \times 10^4$	$1 \times 10^7$
Ca-47	$1 \times 10^{1}$	$1 \times 10^6$
Sc-46	$1 \times 10^{1}$	$1 \times 10^6$
Sc-47	$1 \times 10^2$	$1 \times 10^6$
Sc-48	$1 \times 10^{1}$	$1 \times 10^5$
V-48	$1 \times 10^{1}$	$1 \times 10^5$
Cr-51	$1 \times 10^3$	$1 \times 10^7$
Mn-51	$1 \times 10^1$	$1 \times 10^5$
Mn-52	$1 \times 10^1$	$1 \times 10^5$
Mn-52m	$1 \times 10^1$	$1 \times 10^5$
Mn-53	$1 \times 10^4$	$1 \times 10^9$
Mn-54	$1 \times 10^1$	$1 \times 10^6$
Mn-56	$1 \times 10^1$	$1 \times 10^5$
Fe-52	$1 \times 10^1$	$1 \times 10^6$
Fe-55	$1 \times 10^4$	$1 \times 10^6$
Fe-59	$1 \times 10^1$	$1 \times 10^6$
Co-55	$1 \times 10^{1}$	$1 \times 10^6$

<sup>(1)</sup> Potassium salts in quantities less than 1000kg are exempted.

<sup>(2)</sup> National Radiological Protection Board, Didcot (United Kingdom) 1999.

Radionuclide	Activity Concentration	Activity (becquerels)
	(kilobecquerels per kilogram <sup>(1)</sup> )	
Co-56	$1 \times 10^1$	1 × 10 <sup>5</sup>
Co-57	$1 \times 10^2$	$1 \times 10^6$
Co-58	$1 \times 10^1$	$1 \times 10^6$
Co-58m	$1 \times 10^4$	$1 \times 10^7$
Co-60	$1 \times 10^1$	$1 \times 10^5$
Co-60m	$1 \times 10^3$	$1 \times 10^6$
Co-61	$1 \times 10^2$	$1 \times 10^6$
Co-62m	$1 \times 10^{1}$	$1 \times 10^5$
Ni-59	$1 \times 10^4$	$1 \times 10^8$
Ni-63	$1 \times 10^5$	$1 \times 10^8$
Ni-65	$1 \times 10^1$	$1 \times 10^6$
Cu-64	$1 \times 10^2$	$1 \times 10^6$
Zn-65	$1 \times 10^1$	$1 \times 10^6$
Zn-69	$1 \times 10^4$	$1 \times 10^6$
Zn-69m	$1 \times 10^2$	$1 \times 10^6$
Ga-72	$1 \times 10^1$	$1 \times 10^5$
Ge-71	$1 \times 10^4$	$1 \times 10^8$
As-73	$1 \times 10^3$	$1 \times 10^7$
As-74	$1 \times 10^1$	$1 \times 10^6$
As-76	$1 \times 10^2$	$1 \times 10^5$
As-77	$1 \times 10^3$	$1 \times 10^6$
Se-75	$1 \times 10^2$	$1 \times 10^6$
Br-82	$1 \times 10^1$	$1 \times 10^6$
Kr-74	$1 \times 10^2$	$1 \times 10^9$
Kr-76	$1 \times 10^2$	$1 \times 10^9$
Kr-77	$1 \times 10^2$	$1 \times 10^9$
Kr-79	$1 \times 10^3$	$1 \times 10^5$

<sup>(1)</sup> Potassium salts in quantities less than 1000kg are exempted.

<sup>(2)</sup> National Radiological Protection Board, Didcot (United Kingdom) 1999.

Kr-83m	Radionuclide	Activity Concentration	Activity (becquerels)
Kr-83m		,	
Kr-85	Kr-81	$1 \times 10^4$	$1 \times 10^7$
Kr-85m       1 × 10³       1 × 10¹         Kr-87       1 × 10²       1 × 10°         Kr-88       1 × 10²       1 × 10°         Rb-86       1 × 10²       1 × 10°         Sr-85       1 × 10²       1 × 10°         Sr-85m       1 × 10²       1 × 10°         Sr-87m       1 × 10²       1 × 10°         Sr-89       1 × 10³       1 × 10°         Sr-90+       1 × 10²       1 × 10°         Sr-91       1 × 10¹       1 × 10°         Sr-92       1 × 10¹       1 × 10°         Y-90       1 × 10³       1 × 10°         Y-91m       1 × 10³       1 × 10°         Y-91m       1 × 10²       1 × 10°         Y-92       1 × 10²       1 × 10°         Y-93       1 × 10²       1 × 10°         Zr-93+       1 × 10³       1 × 10°         Zr-95       1 × 10¹       1 × 10°         Nb-93m       1 × 10¹       1 × 10°         Nb-94       1 × 10¹       1 × 10°         Nb-95       1 × 10¹       1 × 10°         Nb-97       1 × 10¹       1 × 10°	Kr-83m	$1 \times 10^5$	$1\times10^{12}$
Kr-87       1 × 10²       1 × 10°         Kr-88       1 × 10²       1 × 10°         Rb-86       1 × 10²       1 × 10°         Sr-85       1 × 10²       1 × 10°         Sr-85m       1 × 10²       1 × 10°         Sr-87m       1 × 10²       1 × 10°         Sr-89       1 × 10³       1 × 10°         Sr-90+       1 × 10²       1 × 10⁴         Sr-91       1 × 10¹       1 × 10°         Sr-92       1 × 10¹       1 × 10°         Y-90       1 × 10³       1 × 10°         Y-91       1 × 10³       1 × 10°         Y-91m       1 × 10²       1 × 10°         Y-92       1 × 10²       1 × 10°         Y-93       1 × 10²       1 × 10°         Zr-93+       1 × 10²       1 × 10°         Zr-95       1 × 10¹       1 × 10°         Zr-97+       1 × 10¹       1 × 10°         Nb-93m       1 × 10¹       1 × 10°         Nb-94       1 × 10¹       1 × 10°         Nb-95       1 × 10¹       1 × 10°         Nb-97       1 × 10¹       1 × 10°	Kr-85	$1 \times 10^5$	$1 \times 10^4$
Kr-88 $1 \times 10^2$ $1 \times 10^9$ Rb-86 $1 \times 10^2$ $1 \times 10^5$ Sr-85 $1 \times 10^2$ $1 \times 10^6$ Sr-85m $1 \times 10^2$ $1 \times 10^7$ Sr-87m $1 \times 10^2$ $1 \times 10^6$ Sr-89 $1 \times 10^3$ $1 \times 10^6$ Sr-90+ $1 \times 10^2$ $1 \times 10^4$ Sr-91 $1 \times 10^1$ $1 \times 10^6$ Y-90 $1 \times 10^3$ $1 \times 10^6$ Y-91 $1 \times 10^3$ $1 \times 10^6$ Y-91m $1 \times 10^2$ $1 \times 10^6$ Y-92 $1 \times 10^2$ $1 \times 10^6$ Y-93 $1 \times 10^2$ $1 \times 10^5$ Y-95 $1 \times 10^1$ $1 \times 10^6$ Zr-97+ $1 \times 10^1$ $1 \times 10^6$ Nb-93m $1 \times 10^4$ $1 \times 10^6$ Nb-94 $1 \times 10^1$ $1 \times 10^6$ Nb-97 $1 \times 10^1$ $1 \times 10^6$	Kr-85m	$1 \times 10^3$	$1\times10^{10}$
Rb-86 $1 \times 10^2$ $1 \times 10^5$ Sr-85 $1 \times 10^2$ $1 \times 10^6$ Sr-85m $1 \times 10^2$ $1 \times 10^7$ Sr-87m $1 \times 10^2$ $1 \times 10^6$ Sr-89 $1 \times 10^3$ $1 \times 10^6$ Sr-90+ $1 \times 10^2$ $1 \times 10^4$ Sr-91 $1 \times 10^1$ $1 \times 10^5$ Sr-92 $1 \times 10^1$ $1 \times 10^6$ Y-90 $1 \times 10^3$ $1 \times 10^6$ Y-91m $1 \times 10^3$ $1 \times 10^6$ Y-91m $1 \times 10^2$ $1 \times 10^6$ Y-92 $1 \times 10^2$ $1 \times 10^6$ Y-93 $1 \times 10^2$ $1 \times 10^5$ Y-93+ $1 \times 10^2$ $1 \times 10^5$ Zr-93+ $1 \times 10^3$ $1 \times 10^5$ Zr-95- $1 \times 10^1$ $1 \times 10^6$ Nb-93m $1 \times 10^4$ $1 \times 10^6$ Nb-94 $1 \times 10^1$ $1 \times 10^6$ Nb-95 $1 \times 10^1$ $1 \times 10^6$ Nb-97 $1 \times 10^1$ $1 \times 10^6$	Kr-87	$1 \times 10^2$	$1 \times 10^9$
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Kr-88	$1 \times 10^2$	$1 \times 10^9$
Sr-85m $1 \times 10^2$ $1 \times 10^7$ Sr-87m $1 \times 10^2$ $1 \times 10^6$ Sr-89 $1 \times 10^3$ $1 \times 10^6$ Sr-90+ $1 \times 10^2$ $1 \times 10^4$ Sr-91 $1 \times 10^1$ $1 \times 10^5$ Sr-92 $1 \times 10^1$ $1 \times 10^6$ Y-90 $1 \times 10^3$ $1 \times 10^6$ Y-91 $1 \times 10^3$ $1 \times 10^6$ Y-91m $1 \times 10^2$ $1 \times 10^6$ Y-92 $1 \times 10^2$ $1 \times 10^5$ Y-93 $1 \times 10^2$ $1 \times 10^5$ Y-93 $1 \times 10^2$ $1 \times 10^5$ Zr-93+ $1 \times 10^3$ $1 \times 10^7$ Zr-95 $1 \times 10^1$ $1 \times 10^6$ Zr-97+ $1 \times 10^1$ $1 \times 10^5$ Nb-93m $1 \times 10^4$ $1 \times 10^7$ Nb-94 $1 \times 10^1$ $1 \times 10^6$ Nb-95 $1 \times 10^1$ $1 \times 10^6$ Nb-97 $1 \times 10^1$ $1 \times 10^6$	Rb-86	$1 \times 10^2$	$1 \times 10^5$
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Sr-85	$1 \times 10^2$	$1 \times 10^6$
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Sr-85m	$1 \times 10^2$	$1 \times 10^7$
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Sr-87m	$1 \times 10^2$	$1 \times 10^6$
Sr-91	Sr-89	$1 \times 10^3$	$1 \times 10^6$
Sr-92 $1 \times 10^{1}$ $1 \times 10^{6}$ Y-90 $1 \times 10^{3}$ $1 \times 10^{5}$ Y-91 $1 \times 10^{3}$ $1 \times 10^{6}$ Y-91m $1 \times 10^{2}$ $1 \times 10^{6}$ Y-92 $1 \times 10^{2}$ $1 \times 10^{5}$ Y-93 $1 \times 10^{2}$ $1 \times 10^{5}$ Zr-93+ $1 \times 10^{3}$ $1 \times 10^{7}$ Zr-95 $1 \times 10^{1}$ $1 \times 10^{6}$ Zr-97+ $1 \times 10^{1}$ $1 \times 10^{5}$ Nb-93m $1 \times 10^{4}$ $1 \times 10^{7}$ Nb-94 $1 \times 10^{1}$ $1 \times 10^{6}$ Nb-95 $1 \times 10^{1}$ $1 \times 10^{6}$ Nb-97 $1 \times 10^{1}$ $1 \times 10^{6}$	Sr-90+	$1 \times 10^2$	$1 \times 10^4$
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Sr-91	$1 \times 10^1$	$1 \times 10^5$
Y-91 $1 \times 10^3$ $1 \times 10^6$ Y-91m $1 \times 10^2$ $1 \times 10^6$ Y-92 $1 \times 10^2$ $1 \times 10^5$ Y-93 $1 \times 10^2$ $1 \times 10^5$ Zr-93+ $1 \times 10^3$ $1 \times 10^7$ Zr-95 $1 \times 10^1$ $1 \times 10^6$ Zr-97+ $1 \times 10^1$ $1 \times 10^5$ Nb-93m $1 \times 10^4$ $1 \times 10^7$ Nb-94 $1 \times 10^1$ $1 \times 10^6$ Nb-95 $1 \times 10^1$ $1 \times 10^6$ Nb-97 $1 \times 10^1$ $1 \times 10^6$	Sr-92	$1 \times 10^1$	$1 \times 10^6$
Y-91m $1 \times 10^2$ $1 \times 10^6$ Y-92 $1 \times 10^2$ $1 \times 10^5$ Y-93 $1 \times 10^2$ $1 \times 10^5$ Zr-93+ $1 \times 10^3$ $1 \times 10^7$ Zr-95 $1 \times 10^1$ $1 \times 10^6$ Zr-97+ $1 \times 10^1$ $1 \times 10^5$ Nb-93m $1 \times 10^4$ $1 \times 10^7$ Nb-94 $1 \times 10^1$ $1 \times 10^6$ Nb-95 $1 \times 10^1$ $1 \times 10^6$ Nb-97 $1 \times 10^1$ $1 \times 10^6$	Y-90	$1 \times 10^3$	$1 \times 10^5$
Y-92 $1 \times 10^2$ $1 \times 10^5$ Y-93 $1 \times 10^2$ $1 \times 10^5$ Zr-93+ $1 \times 10^3$ $1 \times 10^7$ Zr-95 $1 \times 10^1$ $1 \times 10^6$ Zr-97+ $1 \times 10^1$ $1 \times 10^5$ Nb-93m $1 \times 10^4$ $1 \times 10^7$ Nb-94 $1 \times 10^1$ $1 \times 10^6$ Nb-95 $1 \times 10^1$ $1 \times 10^6$ Nb-97 $1 \times 10^1$ $1 \times 10^6$	Y-91	$1 \times 10^3$	$1 \times 10^6$
Y-93 $1 \times 10^2$ $1 \times 10^5$ Zr-93+ $1 \times 10^3$ $1 \times 10^7$ Zr-95 $1 \times 10^1$ $1 \times 10^6$ Zr-97+ $1 \times 10^1$ $1 \times 10^5$ Nb-93m $1 \times 10^4$ $1 \times 10^7$ Nb-94 $1 \times 10^1$ $1 \times 10^6$ Nb-95 $1 \times 10^1$ $1 \times 10^6$ Nb-97 $1 \times 10^1$ $1 \times 10^6$	Y-91m	$1 \times 10^2$	$1 \times 10^6$
$Zr-93+$ $1 \times 10^3$ $1 \times 10^7$ $Zr-95$ $1 \times 10^1$ $1 \times 10^6$ $Zr-97+$ $1 \times 10^1$ $1 \times 10^5$ $Nb-93m$ $1 \times 10^4$ $1 \times 10^7$ $1 \times 10^7$ $Nb-94$ $1 \times 10^1$ $1 \times 10^6$ $Nb-95$ $1 \times 10^1$ $1 \times 10^6$ $Nb-97$ $1 \times 10^1$ $1 \times 10^6$	Y-92	$1 \times 10^2$	$1 \times 10^5$
Zr-95 $1 \times 10^{1}$ $1 \times 10^{6}$ Zr-97+ $1 \times 10^{1}$ $1 \times 10^{5}$ Nb-93m $1 \times 10^{4}$ $1 \times 10^{7}$ Nb-94 $1 \times 10^{1}$ $1 \times 10^{6}$ Nb-95 $1 \times 10^{1}$ $1 \times 10^{6}$ Nb-97 $1 \times 10^{1}$ $1 \times 10^{6}$	Y-93	$1 \times 10^2$	$1 \times 10^5$
Zr-97+ $1 \times 10^{1}$ $1 \times 10^{5}$ Nb-93m $1 \times 10^{4}$ $1 \times 10^{7}$ Nb-94 $1 \times 10^{1}$ $1 \times 10^{6}$ Nb-95 $1 \times 10^{1}$ $1 \times 10^{6}$ Nb-97 $1 \times 10^{1}$ $1 \times 10^{6}$	Zr-93+	$1 \times 10^3$	$1 \times 10^7$
Nb-93m $1 \times 10^4$ $1 \times 10^7$ Nb-94 $1 \times 10^1$ $1 \times 10^6$ Nb-95 $1 \times 10^1$ $1 \times 10^6$ Nb-97 $1 \times 10^1$ $1 \times 10^6$	Zr-95	$1 \times 10^1$	$1 \times 10^6$
Nb-94 $1 \times 10^{1}$ $1 \times 10^{6}$ Nb-95 $1 \times 10^{1}$ $1 \times 10^{6}$ Nb-97 $1 \times 10^{1}$ $1 \times 10^{6}$	Zr-97+	$1 \times 10^1$	$1 \times 10^5$
Nb-95 $1 \times 10^{1}$ $1 \times 10^{6}$ Nb-97 $1 \times 10^{1}$ $1 \times 10^{6}$	Nb-93m	$1 \times 10^4$	$1 \times 10^7$
Nb-97 $1 \times 10^1$ $1 \times 10^6$	Nb-94	$1 \times 10^1$	$1 \times 10^6$
	Nb-95	$1 \times 10^{1}$	$1 \times 10^6$
Nb-98 $1 \times 10^1$ $1 \times 10^5$	Nb-97	$1 \times 10^1$	$1 \times 10^6$
	Nb-98	$1 \times 10^1$	$1 \times 10^5$

<sup>(1)</sup> Potassium salts in quantities less than 1000kg are exempted.

<sup>(2)</sup> National Radiological Protection Board, Didcot (United Kingdom) 1999.

Radionuclide	Activity Concentration	Activity (becquerels)
	(kilobecquerels per kilogram <sup>(1)</sup> )	
Mo-90	$1 \times 10^1$	$1 \times 10^{6}$
Mo-93	$1 \times 10^3$	$1 \times 10^8$
Mo-99	$1 \times 10^2$	$1 \times 10^6$
Mo-101	$1 \times 10^1$	$1 \times 10^6$
Tc-96	$1 \times 10^1$	$1 \times 10^6$
Tc-96m	$1 \times 10^3$	$1 \times 10^7$
Tc-97	$1 \times 10^3$	$1 \times 10^8$
Tc-97m	$1 \times 10^3$	$1 \times 10^7$
Tc-99	$1 \times 10^4$	$1 \times 10^7$
Tc-99m	$1 \times 10^2$	$1 \times 10^7$
Ru-97	$1 \times 10^2$	$1 \times 10^7$
Ru-103	$1 \times 10^2$	$1 \times 10^6$
Ru-105	$1 \times 10^1$	$1 \times 10^6$
Ru-106+	$1 \times 10^2$	$1 \times 10^5$
Rh-103m	$1 \times 10^4$	$1 \times 10^8$
Rh-105	$1 \times 10^2$	$1 \times 10^7$
Pd-103	$1 \times 10^3$	$1 \times 10^8$
Pd-109	$1 \times 10^3$	$1 \times 10^6$
Ag-105	$1 \times 10^2$	$1 \times 10^6$
Ag-108m	$1 \times 10^1$	$1 \times 10^6$
Ag-110m	$1 \times 10^1$	$1 \times 10^6$
Ag-111	$1 \times 10^3$	$1 \times 10^6$
Cd-109	$1 \times 10^4$	$1 \times 10^6$
Cd-115	$1 \times 10^2$	$1 \times 10^6$
Cd-115m	$1 \times 10^3$	$1 \times 10^6$
In-111	$1 \times 10^2$	$1 \times 10^6$
In-113m	$1 \times 10^2$	$1 \times 10^6$

<sup>(1)</sup> Potassium salts in quantities less than 1000kg are exempted.

<sup>(2)</sup> National Radiological Protection Board, Didcot (United Kingdom) 1999.

Radionuclide	Activity Concentration	Activity (becquerels)
	(kilobecquerels per kilogram <sup>(1)</sup> )	
In-114m	$1 \times 10^2$	$1 \times 10^{6}$
In-115m	$1 \times 10^2$	$1 \times 10^6$
Sn-113	$1 \times 10^3$	$1 \times 10^7$
Sn-125	$1 \times 10^2$	$1 \times 10^5$
Sb-122	$1 \times 10^2$	$1 \times 10^4$
Sb-124	$1 \times 10^1$	$1 \times 10^6$
Sb-125	$1 \times 10^2$	$1 \times 10^6$
Te-123m	$1 \times 10^2$	$1 \times 10^7$
Te-125m	$1 \times 10^3$	$1 \times 10^7$
Te-127	$1 \times 10^3$	$1 \times 10^6$
Te-127m	$1 \times 10^3$	$1 \times 10^7$
Te-129	$1 \times 10^2$	$1 \times 10^6$
Te-129m	$1 \times 10^3$	$1 \times 10^6$
Te-131	$1 \times 10^2$	$1 \times 10^5$
Te-131m	$1 \times 10^1$	$1 \times 10^6$
Te-132	$1 \times 10^2$	$1 \times 10^7$
Te-133	$1 \times 10^1$	$1 \times 10^5$
Te-133m	$1 \times 10^1$	$1 \times 10^5$
Te-134	$1 \times 10^{1}$	$1 \times 10^6$
I-123	$1 \times 10^2$	$1 \times 10^7$
I-125	$1 \times 10^3$	$1 \times 10^6$
I-126	$1 \times 10^2$	$1 \times 10^6$
I-129	$1 \times 10^2$	$1 \times 10^5$
I-130	$1 \times 10^1$	$1 \times 10^6$
I-131	$1 \times 10^2$	$1 \times 10^6$
I-132	$1 \times 10^{1}$	$1 \times 10^5$
I-133	$1 \times 10^1$	$1 \times 10^6$

<sup>(1)</sup> Potassium salts in quantities less than 1000kg are exempted.

<sup>(2)</sup> National Radiological Protection Board, Didcot (United Kingdom) 1999.

Radionuclide	Activity Concentration	Activity (becquerels)
	(kilobecquerels per kilogram <sup>(1)</sup> )	
I-134	$1 \times 10^1$	1 × 10 <sup>5</sup>
I-135	$1 \times 10^1$	$1 \times 10^6$
Xe-131+	$1 \times 10^4$	$1 \times 10^4$
Xe-133	$1 \times 10^3$	$1 \times 10^4$
Xe-135	$1 \times 10^3$	$1\times10^{10}$
Cs-129	$1 \times 10^2$	$1 \times 10^5$
Cs-131	$1 \times 10^3$	$1 \times 10^6$
Cs-132	$1 \times 10^{1}$	$1 \times 10^5$
Cs-134+	$1 \times 10^3$	$1 \times 10^5$
Cs-134	$1 \times 10^{1}$	$1 \times 10^4$
Cs-135	$1 \times 10^4$	$1 \times 10^7$
Cs-136	$1 \times 10^{1}$	$1 \times 10^5$
Cs-137+	$1 \times 10^{1}$	$1 \times 10^4$
Cs-138	$1 \times 10^{1}$	$1 \times 10^4$
Ba-131	$1 \times 10^2$	$1 \times 10^6$
Ba-140+	$1 \times 10^{1}$	$1 \times 10^5$
La-140	$1 \times 10^{1}$	$1 \times 10^5$
Ce-139	$1 \times 10^2$	$1 \times 10^6$
Ce-141	$1 \times 10^2$	$1 \times 10^7$
Ce-143	$1 \times 10^2$	$1 \times 10^6$
Ce-144+	$1 \times 10^2$	$1 \times 10^5$
Pr-142	$1 \times 10^2$	$1 \times 10^5$
Pr-143	$1 \times 10^4$	$1 \times 10^6$
Nd-147	$1 \times 10^2$	$1 \times 10^6$
Nd-149	$1 \times 10^2$	$1 \times 10^6$
Pm-147	$1 \times 10^4$	$1 \times 10^7$
Pm-149	$1 \times 10^3$	$1 \times 10^6$

<sup>(1)</sup> Potassium salts in quantities less than 1000kg are exempted.

<sup>(2)</sup> National Radiological Protection Board, Didcot (United Kingdom) 1999.

Radionuclide	Activity Concentration	Activity (becquerels)
	(kilobecquerels per kilogram <sup>(1)</sup> )	
Sm-151	$1 \times 10^4$	1 × 10 <sup>8</sup>
Sm-153	$1 \times 10^2$	$1 \times 10^6$
Eu-152	$1 \times 10^1$	$1 \times 10^6$
Eu-152m	$1 \times 10^2$	$1 \times 10^6$
Eu-154	$1 \times 10^1$	$1 \times 10^6$
Eu-155	$1 \times 10^2$	$1 \times 10^7$
Gd-153	$1 \times 10^2$	$1 \times 10^7$
Gd-159	$1 \times 10^3$	$1 \times 10^6$
Tb-160	$1 \times 10^{1}$	$1 \times 10^6$
Dy-165	$1 \times 10^3$	$1 \times 10^6$
Dy-166	$1 \times 10^3$	$1 \times 10^6$
Ho-166	$1 \times 10^3$	$1 \times 10^5$
Er-169	$1 \times 10^4$	$1 \times 10^7$
Er-171	$1 \times 10^2$	$1 \times 10^6$
Tm-170	$1 \times 10^3$	$1 \times 10^6$
Tm-171	$1 \times 10^4$	$1 \times 10^8$
Yb-175	$1 \times 10^3$	$1 \times 10^7$
Lu-177	$1 \times 10^3$	$1 \times 10^7$
Hf-181	$1 \times 10^1$	$1 \times 10^6$
Ta-182	$1 \times 10^1$	$1 \times 10^4$
W-181	$1 \times 10^3$	$1 \times 10^7$
W-185	$1 \times 10^4$	$1 \times 10^7$
W-187	$1 \times 10^2$	$1 \times 10^6$
Re-186	$1 \times 10^3$	$1 \times 10^6$
Re-188	$1 \times 10^2$	$1 \times 10^5$
Os-185	$1 \times 10^{1}$	$1 \times 10^6$
Os-191	$1 \times 10^2$	$1 \times 10^7$

<sup>(1)</sup> Potassium salts in quantities less than 1000kg are exempted.

<sup>(2)</sup> National Radiological Protection Board, Didcot (United Kingdom) 1999.

Radionuclide	Activity Concentration	Activity (becquerels)
	(kilobecquerels per kilogram <sup>(1)</sup> )	
Os-191m	$1 \times 10^3$	1 × 10 <sup>7</sup>
Os-193	$1 \times 10^2$	$1 \times 10^6$
Ir-190	$1 \times 10^1$	$1 \times 10^6$
Ir-192	$1 \times 10^1$	$1 \times 10^4$
Pt-191	$1 \times 10^2$	$1 \times 10^6$
Pt-193m	$1 \times 10^3$	$1 \times 10^7$
Pt-197	$1 \times 10^3$	$1 \times 10^6$
Pt-197m	$1 \times 10^2$	$1 \times 10^6$
Au-198	$1 \times 10^2$	$1 \times 10^6$
Au-199	$1 \times 10^2$	$1 \times 10^6$
Hg-197	$1 \times 10^2$	$1 \times 10^7$
Hg-197m	$1 \times 10^2$	$1 \times 10^6$
Hg-203	$1 \times 10^2$	$1 \times 10^5$
T1-200	$1 \times 10^1$	$1 \times 10^6$
T1-201	$1 \times 10^2$	$1 \times 10^6$
T1-202	$1 \times 10^2$	$1 \times 10^6$
T1-204	$1 \times 10^4$	$1 \times 10^4$
Pb-203	$1 \times 10^2$	$1 \times 10^6$
Pb-210+	$1 \times 10^{1}$	$1 \times 10^4$
Pb-212+	$1 \times 10^{1}$	$1 \times 10^5$
Bi-206	$1 \times 10^1$	$1 \times 10^5$
Bi-207	$1 \times 10^1$	$1 \times 10^6$
Bi-210	$1 \times 10^3$	$1 \times 10^6$
Bi-212+	$1 \times 10^1$	$1 \times 10^5$
Po-203	$1 \times 10^1$	$1 \times 10^6$
Po-205	$1 \times 10^1$	$1 \times 10^6$
Po-207	$1 \times 10^1$	$1 \times 10^6$

<sup>(1)</sup> Potassium salts in quantities less than 1000kg are exempted.

<sup>(2)</sup> National Radiological Protection Board, Didcot (United Kingdom) 1999.

Radionuclide	Activity Concentration	Activity (becquerels)
	(kilobecquerels per kilogram <sup>(1)</sup> )	
Po-210	1 × 10 <sup>1</sup>	1 × 10 <sup>4</sup>
At-211	$1 \times 10^3$	$1 \times 10^7$
Rn-220+	$1 \times 10^4$	$1 \times 10^7$
Rn-222+	$1 \times 10^1$	$1 \times 10^8$
Ra-223+	$1 \times 10^2$	$1 \times 10^5$
Ra-224+	$1 \times 10^1$	$1 \times 10^1$
Ra-225	$1 \times 10^2$	$1 \times 10^5$
Ra-226+	$1 \times 10^1$	$1 \times 10^4$
Ra-227	$1 \times 10^2$	$1 \times 10^6$
Ra-228+	$1 \times 10^1$	$1 \times 10^5$
Ac-228	$1 \times 10^1$	$1 \times 10^6$
Th-226+	$1 \times 10^3$	$1 \times 10^7$
Th-227	$1 \times 10^1$	$1 \times 10^4$
Th-228+	$1 \times 10^0$	$1 \times 10^4$
Th-229+	$1 \times 10^0$	$1 \times 10^3$
Th-230	$1 \times 10^0$	$1 \times 10^1$
Th-231	$1 \times 10^3$	$1 \times 10^7$
Th-234+	$1 \times 10^3$	$1 \times 10^5$
Pa-230	$1 \times 10^1$	$1 \times 10^6$
Pa-231	$1 \times 10^0$	$1 \times 10^3$
Pa-233	$1 \times 10^2$	$1 \times 10^7$
U-230	$1 \times 10^1$	$1 \times 10^5$
U-231	$1 \times 10^2$	$1 \times 10^7$
U-232+	$1 \times 10^0$	$1 \times 10^3$
U-233	$1 \times 10^1$	$1 \times 10^4$
U-234	$1 \times 10^1$	$1 \times 10^4$
U-235+	$1 \times 10^1$	$1 \times 10^4$

<sup>(1)</sup> Potassium salts in quantities less than 1000kg are exempted.

<sup>(2)</sup> National Radiological Protection Board, Didcot (United Kingdom) 1999.

Radionuclide	Activity Concentration	Activity (becquerels)
	(kilobecquerels per kilogram <sup>(1)</sup> )	
U-236	$1 \times 10^1$	$1 \times 10^4$
U-237	$1 \times 10^2$	$1 \times 10^6$
U-238+	$1 \times 10^1$	$1 \times 10^4$
U-239	$1 \times 10^2$	$1 \times 10^6$
U-240	$1 \times 10^3$	$1 \times 10^7$
U-240+	$1 \times 10^1$	$1 \times 10^6$
Np-237+	$1 \times 10^0$	$1 \times 10^3$
Np-239	$1 \times 10^2$	$1 \times 10^7$
Np-240	$1 \times 10^1$	$1 \times 10^6$
Pu-234	$1 \times 10^2$	$1 \times 10^7$
Pu-235	$1 \times 10^2$	$1 \times 10^7$
Pu-236	$1 \times 10^1$	$1 \times 10^4$
Pu-237	$1 \times 10^3$	$1 \times 10^7$
Pu-238	$1 \times 10^0$	$1 \times 10^4$
Pu-239	$1 \times 10^0$	$1 \times 10^4$
Pu-240	$1 \times 10^0$	$1 \times 10^3$
Pu-241	$1 \times 10^2$	$1 \times 10^5$
Pu-242	$1 \times 10^0$	$1 \times 10^4$
Pu-243	$1 \times 10^3$	$1 \times 10^7$
Pu-244	$1 \times 10^0$	$1 \times 10^4$
Am-241	$1 \times 10^0$	$1 \times 10^4$
Am-242	$1 \times 10^3$	$1 \times 10^6$
Am-242m+	$1 \times 10^0$	$1 \times 10^4$
Am-243+	$1 \times 10^0$	$1 \times 10^3$
Cm-242	$1 \times 10^2$	$1 \times 10^5$
Cm-243	$1 \times 10^0$	$1 \times 10^4$
Cm-244	$1 \times 10^1$	$1 \times 10^4$

<sup>(1)</sup> Potassium salts in quantities less than 1000kg are exempted.

<sup>(2)</sup> National Radiological Protection Board, Didcot (United Kingdom) 1999.

Radionuclide	Activity Concentration	Activity (becquerels)
	(kilobecquerels per kilogram <sup>(1)</sup> )	
Cm-245	$1 \times 10^0$	$1 \times 10^3$
Cm-246	$1 \times 10^0$	$1 \times 10^3$
Cm-247	$1 \times 10^0$	$1 \times 10^4$
Cm-248	$1 \times 10^0$	$1 \times 10^3$
Bk-249	$1 \times 10^3$	$1 \times 10^6$
Cf-246	$1 \times 10^3$	$1 \times 10^6$
Cf-248	$1 \times 10^1$	$1 \times 10^4$
Cf-249	$1 \times 10^0$	$1 \times 10^3$
Cf-250	$1 \times 10^1$	$1 \times 10^4$
Cf-251	$1 \times 10^{0}$	$1 \times 10^3$
Cf-252	$1 \times 10^1$	$1 \times 10^4$
Cf-253	$1 \times 10^2$	$1 \times 10^5$
Cf-254	$1 \times 10^0$	$1 \times 10^3$
Es-253	$1 \times 10^2$	$1 \times 10^5$
Es-254	$1 \times 10^1$	$1 \times 10^4$
Es-254m	$1 \times 10^2$	$1 \times 10^6$
Fm-254	$1 \times 10^4$	$1 \times 10^7$
Fm-255	$1 \times 10^3$	$1 \times 10^6$
Any other radionuclide that is—  (a) not of natural terrestrial cosmic origin; or  (b) listed in Table 1 of schedule 8.	10 <sup>3</sup> , or the quantity given in respect of that radionuclide in the Health Protection Agency's publication "Exempt Concentrations and Quantities for Radionuclides not included in the European Basic Safety Standards Directive".	given in respect of that radionuclide in the document referenced in

<sup>(1)</sup> Potassium salts in quantities less than 1000kg are exempted.

The summation rule in respect of column 2 of Table 2 is the sum of the quotients A/B where—

The summation rule in respect of column 3 of Table 2 is the sum of the quotients C/D where—

<sup>(2)</sup> National Radiological Protection Board, Didcot (United Kingdom) 1999.

<sup>(</sup>a) "A" means the concentration of each radionuclide listed in column 1 of Table 2 that is present in the radioactive material or radioactive waste; and

<sup>(</sup>b) "B" means the concentration of that radionuclide specified in column 2 of Table 2.

- (a) "C" means the quantity of each radionuclide listed in column 1 of Table 2 that is present in the radioactive material or radioactive waste; and
- (b) "D" means the quantity of that radionuclide specified in column 3 of Table 2.

+Parent radionuclides, and their progeny whose dose contributions are taken into account in the dose calculation (thus requiring only the exemption level of the parent radionuclide to be considered), are listed in the following:

Parent radionuclide	Progeny
Sr-90	Y-90
Zr-93	Nb-93m
Zr-97	Nb-97
Ru-106	Rh-106
Ag-108m	Ag-108
Cs-137	Ba-137m
Ba-140	La-140
Ce-144	Pr-144
Pb-210	Bi-210, Po-210
Pb-212	Bi-212, Tl-208 (0.36), Po-212 (0.64)
Bi-212	Tl-208 (0.36), Po-212 (0.64)
Rn-220	Po-216
Rn-222	Po-218, Pb-214, Bi-214, Po-214
Ra-223	Rn-219, Po-215, Pb-211, Bi-211, Tl-207
Ra-224	Rn-220, Po-216, Pb-212, Bi-212, Tl-208 (0.36), Po-212 (0.64)
Ra-226	Rn-222, Po-218, Pb-214, Bi-214, Po-214, Pb-210, Bi-210, Po-210
Ra-228	Ac-228
Th-226	Ra-222, Rn-218, Po-214
Th-228	Ra-224, Rn-220, Po-216, Pb-212, Bi-212, Tl-208 (0.36), Po-212 (0.64)
Th-229	Ra-225, Ac-225, Fr-221, At-217, Bi-213, Po-213, Pb-209
Th-234	Pa-234 m
U-230	Th-226, Ra-222, Rn-218, Po-214
U-232	Th-228, Ra-224, Rn-220, Po-216, Pb-212, Bi-212, Tl-208 (0.36), Po-212 (0.64)
U-235	Th-231
U-238	Th-234, Pa-234m
U-240	Np-240 m

Parent radionuclide	Progeny
Np237	Pa-233
Am-242m	Am-242
Am-243	Np-239