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(**1**);

"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)(**2**);

"local authority" means a council constituted under section 2 of the Local Government etc. (Scotland) Act 1994(**3**);

"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(**4**);

"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—

(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(**5**) as having any of the following hazard classes and hazard categories (as defined in that Regulation)—

(**1**) OJ L 13, 17.1.2014, p.1.
(**2**) Categorization of radioactive sources. — Vienna : International Atomic Energy Agency, 2005 (IAEA safety standards series, ISSN 1020–525X ;ISBN 92–0–103905–0).
(**3**) 1994 c.39. Section 2 was amended by schedule 22, paragraph 232(1), of the Environment Act 1995 (c.25).
(**4**) S.S.I. 2012/360.
(**5**) OJ L 353, 31.12.2008, p.1.

(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 —

(c) Scottish Water; or

(d) a district salmon fishery board established under section 14 of the Salmon Act 1986(**6**);

"Table 1", "Table 2", "Table 3", "Table 4" and "Table 5" mean the tables with those numbers in Part 6;

"unsealed source" means a radioactive source that is not a sealed source;

"waste management licence" means a licence granted under section 35 of the Environmental Protection Act 1990(**7**).

(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—

(e) any site in respect of which a nuclear site licence is for the time being in force; or

(f) 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;

"nuclear site licence", "licensee" and "period of responsibility" have the meanings given in section 26 of the Nuclear Installations Act 1965(**8**);

"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.

(**6**) 1986 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.

(**7**) 1990 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).

(**8**) 1965 c.57. The Act is relevantly amended by the Energy Act 2013 (c.32) schedule 12, Part II, paragraphs 17 and 20.

(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;

(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(**9**).

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 non-radioactive 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;

(**9**) S.I. 2004/1769.

(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^2 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(**10**) for the estimation of doses from external exposure; and

(b) chapter 1 of ICRP Publication 119(**11**) 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.

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

(**10**) ICRP, 2010. Conversion Coefficients for Radiological Protection Quantities for External Radiation Exposures. ICRP Publication 116, Ann. ICRP 40(2-5).

(**11**) ICRP, 2012. Compendium of Dose Coefficients based on ICRP Publication 60. ICRP Publication 119, Ann. ICRP 41(Suppl.)

(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 sub-paragraph (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(**12**);

(ii) the Sewerage (Scotland) Act 1968(**13**);

(iii) the Planning (Hazardous Substances) (Scotland) Act 1997(**14**);

(iv) section 201 of the Local Government (Scotland) Act 1973(**15**);

(v) sections 30A and 56(1) and (2) of the Control of Pollution Act 1974(**16**);

(vi) sections 70, 71 and 75 of the Water (Scotland) Act 1980(**17**);

(vii) part III of the Environmental Protection Act 1990(**18**);

(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.

(**12**) 1993 c.11.
(**13**) 1968 c.47.
(**14**) 1997 c.10.
(**15**) 1973 c.65.
(**16**) 1974 c.40. Section 30A was inserted by section 168 and paragraph 4 of schedule 23 of the Water Act 1989 (c.15).
(**17**) 1980 c.45.
(**18**) 1990 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)*	*Any other liquid concentration becquerels per litre (Bq/l)*	*Gaseous concentration in becquerels per cubic metre (Bq/m^3)*
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

"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
Cl-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

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	10^3
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
Tl-200	10
Tl-201	10^2
Tl-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

Radionuclide	*Concentration in becquerels per gram (Bq/g)*
Any other solid or relevant liquid radionuclide that is not of natural terrestrial or cosmic origin	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(**19**).

"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

(**19**) 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
U-238+	Th-234, Pa-234m, Pa-234

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 × 10 –2
Cm-244	5 × 10 –2
Co-60	3 × 10 –2
Cs-137	1 × 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[(1)]	6 × 10 –2
Ra-226	4 × 10 –2
Se-75	2 × 10 –1
Sr-90 (Y-90)	1 × 10 0
Tm-170	2 × 10 1
Yb-169	3 × 10 –1

(1) The activity given is that of the alpha-emitting radionuclide.

(**1**)

Radionuclide	*Activity (TBq)*
Any other radionuclide	The D-value defined for that radionuclide in "Dangerous quantities of radioactive material (D-values)"(**20**)

(1) The activity given is that of the alpha-emitting radionuclide.

Table 5

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

STANDARD RECORD SHEET FOR HIGH-ACTIVITY SEALED SOURCES (HASS) (*optional in italics*)

1. HASS identification number *Manufacturer device number* *Field of use:*	**2. Identification of the licenced undertaking** Name: Address: Country: Manufacturer ☐ Supplier ☐ User ☐	**3. Location of HASS (Use or storage) if not the same as in 2.** Name: Address: Country: Fixed use ☐ Storage ☐ Mobile use ☐
4. 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 *Year of manufacture:* Radionuclide: Activity at the date of manufacturing Activity reference date: Manufacturer/Supplier (*): Name: Address: Country: Physical and chemical characteristics *Source type identification:* *Capsule identification:* *ISO classification:* *ANSI classification* *LAEA source category:* *Neutron source:* Yes ☐ No ☐ *Neutron source target:* *Neutron flux*	**8. Receipt of HASS** Date of receipt: ..... Receipt from: Name: Address: Country: Manufacturer ☐ Supplier ☐ User ☐ **9. Transfer of HASS** Date of transfer: Transfer to: Name: Address: Country: Licence number: Date of issue: Date of expiry: Manufacturer ☐ Supplier ☐ User ☐ Facility for long term storage or disposal ☐	Date: ..... Date: ..... Date: ..... Date: ..... Date: ..... Date: ..... Date: ..... Date: ..... Date: ..... **10. Further information** Loss ☐ Date of loss: Theft ☐ Date of theft: *Findings:* Yes ☐ No ☐ *Date:* *Place:* *Other information:*

(*) Where the manufacturer of the source is established outside the Community, the name and address of the importer-supplier may be provided instead.

(**20**) Published by the International Atomic Energy Agency in Vienna, Austria (publication date August 2006) (IAEA-EPR-D-Values 2006).