
STATUTORY RULES OF NORTHERN IRELAND

2018 No. 116

The Radioactive Substances (Modification of Enactments) Regulations (Northern Ireland) 2018

PART 1

Radioactive Substances Activities

Amendment of the Radioactive Substances Act 1993

2.—(1) The Radioactive Substances Act 1993 is amended in accordance with paragraphs (2) to (8).

(2) In the Section headed Preliminary in so far as it extends to Northern Ireland—

- (a) in section 1A (meaning of radioactive material) in the first line after “sections 1E, 1F, 1G” insert “, 1GA”;
- (b) after section 1D (radionuclides not of natural terrestrial or cosmic origin) insert—

“Dilution to reduce concentration of radioactivity: Northern Ireland

1DA. For the purposes of section 1B, 1C and 1D, a substance or article is to be treated as having a concentration of radioactivity which exceeds the value referred to in section 1B(2), 1C(c)(i) or 1D(a), if a person has deliberately diluted the substance or article with the intention of ensuring that its concentration of radioactivity does not exceed that value.”; and

- (c) after section 1G (contaminated substances or articles) insert—

“Historic radium contamination: Northern Ireland

1GA. 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 under this section;
- (c) the contamination occurred prior to 13 May 2000; 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 relevant a liquid, 1Bq/g;
 - (ii) for a substance which is any other liquid, 1Bq/l; or

(iii) for a substance which is a gas, 0.01 Bq/m³.”.

(3) After section 14 (accumulation of radioactive waste) insert—

“Radioactive waste: requirements to be imposed on persons authorised to dispose of and accumulate radioactive waste: Northern Ireland

14A.—(1) The chief inspector shall require a person who holds an authorisation to carry on the radioactive substances activity described in section 13(3) (disposal of radioactive waste) or section 14(2) (accumulation of radioactive waste) to—

- (a) achieve and maintain an optimal level of protection of members of the public;
- (b) accept into service adequate equipment and procedures for measuring and assessing exposure of members of the public and radioactive contamination of the environment;
- (c) check the effectiveness and maintenance of equipment as referred to in paragraph (b) and ensure the regular calibration of measuring instruments; and
- (d) seek advice from a radioactive waste adviser in the performance of the tasks referred to in paragraphs (a), (b) and (c).

(2) In this section “radioactive waste adviser” means a person with the knowledge, training and experience needed to give radioactive waste management and environmental radiation protection advice in relation to radioactive waste in order to ensure the effective protection of members of the public, and whose competence in that respect is recognised by the chief inspector.”.

(4) In section 16 (grant of authorisations) in so far as it extends to Northern Ireland after subsection (8) insert—

“(8A) In exercising the functions under this Act in relation to radioactive material and radioactive waste, the chief inspector shall observe the requirements of Article 30(4) of the Basic Safety Standards Directive⁽¹⁾.

(8B) This subsection applies where the chief inspector is exercising functions under this Act in relation to radioactive substances activity where there are no radioactive discharges specified in conditions in the authorisation—

- (a) the chief inspector shall impose appropriate conditions in the authorisation concerning—
 - (i) the monitoring, or the evaluation, of radioactive airborne or aqueous discharges into the environment; and
 - (ii) the reporting to the chief inspector of the results of such monitoring or evaluation;
- (b) for the purposes of this subsection, where the chief inspector is exercising functions under this Act in relation to a nuclear power station or nuclear reprocessing plant, the conditions imposed in the authorisation shall require the monitoring of radioactive discharges and reporting to the chief inspector of such information on radioactive discharges as the appropriate Minister directs; and
- (c) notification and recording of significant events to ensure compliance with Article 96 of the Basic Safety Standards Directive.”.

(5) In section 17A (review of authorisations) in so far as it extends to Northern Ireland—

(1) O.J. L 13, 17.01.2014, p.1.

- (a) in the title, after “authorisations”, insert “and inspection of premises authorised in this Act”;
- (b) at the end of subsection 1(a) omit “and”;
- (c) at the end of subsection 1(b) omit “.” and insert “.”;
- (d) following subsection 1(b) insert—
 - “(c) shall make appropriate periodic inspections of premises for which an authorisation was granted in accordance with section 13 or 14 of this Act; and
 - (d) when establishing an inspection programme for the purposes of subparagraph (1)(c) in relation to radioactive substances activities, shall take into account the potential magnitude and nature of the hazard associated with such activities, a general assessment of radiation protection issues in the activities, and the state of compliance with the requirements of this Act.”.
- (e) after subsection (1), insert—
 - “(1A) Where the chief inspector makes an inspection of an undertaking that is a radioactive substances activity, the chief inspector shall—
 - (a) record the findings of that inspection; and
 - (b) communicate those findings to the operator of the authorised premises.”.
- (6) In section 30A (recovery and disposal of orphan sources) in so far as it extends to Northern Ireland in subsection (1) after “, to” insert “control and”.
- (7) In section 47 (general interpretation provisions) in so far as it relates to Northern Ireland—
 - (a) in subsection (1)—
 - (i) at the appropriate alphabetical place insert—

““the Basic Safety Standards Directive” means Council [Directive 2013/59/EURATOM](#) laying down basic safety standards for protection against the dangers arising from the exposure to ionising radiation and repealing Directives 89/618/Euratom, 90/641/Euratom, 96/29/Euratom, 97/43/Euratom and 2003/122/Euratom;”;
 - (ii) for the definition of “the appropriate Minister” substitute—

““the appropriate Minister” means, in relation to Northern Ireland, the Department of Agriculture, Environment and Rural Affairs;”;
 - (iii) omit the definition for “the HASS Directive”;
 - (iv) omit the definition of “high-activity source”;
 - (v) after the definition of “the appropriate Minister” insert—

““high-activity sealed source” means a sealed source for which the activity of the contained radionuclide is equal to or exceeds the relevant activity value laid down in Annex III of the Basic Safety Standards Directive;”;
 - (vi) for the definition of “orphan source” substitute—

““orphan source” has the same meaning as in the Basic Safety Standards Directive;”;
 - (vii) after the definition of “waste” insert—
 - “(1A) Any reference to “the HASS Directive” in this Act shall be deemed to be a reference to the Basic Safety Standards Directive.
 - (1B) Any reference to “high-activity source” in this Act shall be deemed to be a reference to “high-activity sealed source”.”;

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- (b) in subsection (5A) for “Council [Directive 96/29/EURATOM](#)” substitute “Council [Directive 2013/59/EURATOM](#)”;
- (c) for subsection (6) substitute —
- “In the application of this section to Northern Ireland, the reference in subsection (2) to the Secretary of State shall have effect as a reference to the Department of Agriculture, Environment and Rural Affairs.”.
- (8) In Schedule 1A (tables of NORM industrial activities, radionuclides and summation rules) in so far as it relates to Northern Ireland—
- (a) in Table 1, NORM Industrial Activities, in Part 2, after the row “China clay extraction” insert a further row called “Geothermal energy production”;
- (b) for Table 2 (concentration of radionuclides: NORM industrial activities) substitute—

“Table 2

Concentration of radionuclides: NORM industrial activities

| <i>Radionuclide</i> | <i>Solid or relevant liquid concentration in becquerels per gram (Bq/g)</i> | <i>Any other liquid concentration in becquerels per litre (Bq/l)</i> | <i>Gaseous concentration in becquerels per cubic metre (Bq/m³)</i> |
|---------------------|---|--|---|
| 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 | 0.1 |
| Pb-210+ | 5 | 0.1 | 0.1 |
| Po-210 | 5 | 0.1 | 0.1 |
| 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 |
| Ra228+ | 1 | 0.1 | 0.01 |
| Th-228+ | 1 | 1 | 0.001” |

- (c) for Table 3 (concentration of radionuclides) substitute—

“Table 3**Concentration of radionuclides**

| <i>Radionuclide</i> | <i>Concentration in becquerels per gram (Bq/g)</i> |
|---------------------|--|
| 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 |

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| <i>Radionuclide</i> | <i>Concentration in becquerels per gram (Bq/g)</i> |
|---------------------|--|
| 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 |

| <i>Radionuclide</i> | <i>Concentration in becquerels per gram (Bq/g)</i> |
|---------------------|--|
| 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 |
| 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 |
| Ag-105 | 1 |

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| <i>Radionuclide</i> | <i>Concentration in becquerels per gram (Bq/g)</i> |
|---------------------|--|
| Ag-108m+ | 0.1 |
| Ag-110m+ | 0.1 |
| Ag-111 | 10 |
| Cd-109+ | 1 |
| Cd-115+ | 10 ² |
| 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+ | 10 |
| Te-133m+ | 10 |
| Te-134 | 10 |
| I-123 | 10 ² |
| I-125 | 10 ² |
| I-126 | 10 |
| I-129 | 0.01 |
| I-130 | 10 |
| I-131+ | 10 |

| <i>Radionuclide</i> | <i>Concentration in becquerels per gram (Bq/g)</i> |
|---------------------|--|
| 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 | 100 |
| 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 |
| Eu-152 | 0.1 |
| Eu-152m | 10 |
| Eu-154 | 0.1 |
| Eu-155 | 1 |
| Gd-153 | 10 |

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| <i>Radionuclide</i> | <i>Concentration in becquerels per gram (Bq/g)</i> |
|---------------------|--|
| 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 | 10 ³ |
| 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 |
| Pt-197m | 10 ² |
| Au-198 | 10 |
| Au-199 | 10 ² |

| <i>Radionuclide</i> | <i>Concentration in becquerels per gram (Bq/g)</i> |
|---------------------|--|
| Hg-197 | 10 ² |
| Hg-197m | 10 ² |
| Hg-203 | 10 |
| TI-200 | 10 |
| TI-201 | 10 ² |
| TI-202 | 10 |
| TI-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 ³ |
| Th-227 | 1 |
| Th-228+ | 0.1 |
| Th-229 | 0.1 |
| Th-230 | 0.1 |
| Th-231 | 10 ² |

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| <i>Radionuclide</i> | <i>Concentration in becquerels per gram (Bq/g)</i> |
|---------------------|--|
| 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 | 10 |
| 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 ³ |
| Pu-235 | 10 ² |
| Pu-236 | 1 |
| Pu-237 | 10 ² |
| Pu-238 | 0.1 |
| Pu-239 | 0.1 |
| Pu-240 | 0.1 |
| Pu-241 | 10 |
| Pu-242 | 0.1 |
| Pu-243 | 10 ³ |

| <i>Radionuclide</i> | <i>Concentration in becquerels per gram (Bq/g)</i> |
|--|---|
| 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+ | 10 ² |
| Cf-254 | 1 |
| Es-253 | 10 ² |
| Es-254+ | 0.1 |
| Es-254m+ | 10 |
| Fm-254 | 10 ⁴ |
| Fm-255 | 10 ² |
| Any other solid or non-aqueous liquid radionuclide that is not of natural terrestrial or cosmic origin | 0.01, unless the concentration which gives rise to the same 10 μ Sv/year dose criteria as used in column 2 of this table can be calculated by reference to the IAEA publication "Application of the Concepts of Exclusion, Exemption and Clearance" IAEA Safety Standards Series NO. RS-G-1.7." |

Amendment of the Radioactive Substances Exemption (Northern Ireland) Order 2011

3.—(1) The Radioactive Substances Exemption (Northern Ireland) Order 2011(2) is amended in accordance with paragraphs (2) to (12).

(2) In Article 2(1) (interpretation)—

(a) at the appropriate alphabetical place insert—

““the 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, 90/461/Euratom, 96/29/Euratom, 97/43/Euratom and 2003/122/Euratom.”;

(b) after the definition of “gaseous tritium light device” insert—

““high-activity or similar source” means—

(a) a high-activity source, or

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

“high-activity source” means a sealed source for which the activity of the contained radionuclide is equal to or exceeds the relevant activity value laid down in Annex III of the Basic Safety Standards Directive.”;

(c) for the definition “sealed source” substitute—

““sealed source” has the same meaning as in the Basic Safety Standards Directive, excluding such a source where it is an electrodeposited source or a tritium foil source.”; and

(d) in the definition beginning “Table 1”, after “Table 4,” insert “Table 4A”.

(3) In Article 3 (interpretation: NORM)—

(a) for paragraph (1), “NORM Waste” substitute—

“(1) In this Order “NORM waste” means a substance or article which—

(a) is solid radioactive waste under—

(i) section 1B; or

(ii) except where sub-paragraph (2) applies, section 1C where the waste arises from the remediation of land contaminated by radium;

(b) contains one or more of the radionuclides which are listed in column 1 of Table 4A;

(c) has a concentration of radioactivity that does not exceed the value specified in column 5 of Table 4A in respect of that radionuclide; and

(d) is not waste to which sub-paragraph (4) applies.”;

(b) for paragraph (2) substitute—

“(2) Land is not contaminated under sub-paragraph (1)(a)(ii) unless the contamination occurred prior to 13 May 2000.”;

(c) for paragraph (3) substitute—

“(3) In this Order—

(a) “type 1 NORM waste” means NORM waste which—

- (i) has a concentration of radioactivity that does not exceed the value specified in column 2 of Table 4A; and
 - (ii) is not waste to which sub-paragraph (5) applies; and
- (b) “type 2 NORM waste” means NORM waste which has a concentration of radioactivity that exceeds the value specified in column 2 of Table 4A.”.
- (d) after paragraph (3) insert—
 - “(4) This paragraph applies to waste where, prior to the disposal of that waste, a person has diluted it with the intention of ensuring that the concentration of radioactivity does not exceed the value specified in column 5 of Table 4A.
 - (5) This paragraph applies to waste where, prior to disposal of that waste, a person has diluted it with the intention of ensuring that the concentration of radioactivity does not exceed the value specified in column 2 of Table 4A.”.
- (4) In Article 6 (exemption from authorisation under section 14) in paragraph 2(a), after “high-activity” insert “or similar”.
- (5) In Article 7 (radioactive substances exempted under articles 5 and 6)—
 - (a) in paragraph (2) after “waste” insert “.”; and omit “with a NORM waste concentration which is less than or equal to 10Bq/g.”.
- (6) In Article 9 (exemption from authorisation under section 14 for NORM waste)—
 - (a) in paragraph (1)—
 - (i) omit “Subject to paragraph (2).”;
 - (ii) substitute “a” with “A”; and
 - (iii) after “waste” omit “with a NORM waste concentration that does not exceed 10Bq/g.”;
 - (b) omit paragraph (2).
- (7) In Article 12 (solid radioactive waste)—
 - (a) in paragraph (1) for sub-paragraph (a) substitute—
 - “subject to paragraph (2)—
 - (i) solid radioactive waste described in an entry in column 1 of Table 3 which does not contain a concentration of radionuclides that exceeds the value specified in column 2 of that Table in respect of that kind of waste; or
 - (ii) a broken or damaged individual sealed source of the type described in the fourth entry in Table 6 (individual sealed sources which are solely radioactive waste because they contain tritium), which would not have exceeded that value specified in column 2 when the source was intact; or”;
 - (b) in paragraph (2)—
 - (i) in sub-paragraph (b), after “waste” insert “.” and omit “with a NORM waste concentration which is less than or equal to 10 Bq/g.”.
- (8) In Article 13 (conditions in respect of solid radioactive waste) in paragraph (2)(d), substitute “Annex II of the HASS Directive” with “Annex XIV of the Basic Safety Standards Directive”.
- (9) In Article 19 (exemption from authorisation under section 13 for NORM waste)—
 - (a) in paragraph (1), after “waste” omit “with a NORM waste concentration that does not exceed 10 Bq/g.”;
 - (b) in paragraph (2)—

- (i) in sub-paragraph (a), after “NORM waste” omit “with a NORM waste concentration that does not exceed 5 Bq/g”;
 - (ii) in sub-paragraph (a)(i), for “5 X 10¹⁰ Bq” substitute “the value specified in column 3 of Table 4A”; and
 - (iii) for sub-paragraph (b) substitute “the quantity of radionuclides exceeds the value specified in column 3 of Table 4A.”
- (c) in paragraph (3)—
- (i) after “NORM waste” insert “.”; and
 - (ii) omit “with a NORM waste concentration which exceeds 10 Bq/g.”.
- (10) After Article 19 (exemption from authorisation under section 13 for NORM waste) insert—

“Exemption for disposing of gaseous NORM waste from oil and gas production

19A. A person is exempt from authorisation under section 13 in respect of the disposal on premises of NORM waste where the only radioactive waste disposed of is gaseous NORM waste released in the production of oil and gas.”.

- (11) In Article 20 (conditions in respect of NORM waste)—
- (a) for sub-paragraph (1)(c)(ii) substitute—
 - “(ii) by incineration (or transfer to a person for such incineration or treatment which is preparatory to the incineration of the waste), but not in respect of—
 - (aa) type 1 NORM waste, where in respect of the total amount of that waste that is incinerated (or transferred to a person for preparation or incineration) per year the quantity of radionuclides in the total amount of that waste exceeds the value in column 4 of Table 4A; or
 - (bb) type 2 NORM waste; or”.
- (12) In Schedule 1 (tables of radionuclides and descriptions of radioactive material and radioactive waste)—
- (a) in Table 1 (radionuclides: values of quantities and concentrations), in the final row, in the second column, for “Health Protection Agency’s” substitute “Public Health England”;
 - (b) in Table 2 (radioactive material and accumulated radioactive waste: values of maximum quantities), in the final row, in the second column, for the words from “in respect” to the end substitute “2 x 10⁸ Bq of all other radionuclides (no more than 1 x 10⁸ Bq of which is contained in radioactive material)”;
 - (c) after paragraph 3(b) following Table 4 (aqueous radioactive waste values) insert—

“Table 4A

NORM waste concentrations and maximum disposal quantities

| <i>Radionuclide</i> | <i>Type 1 NORM concentration (Bq/g)</i> | <i>Type 1 NORM total activity for landfill (GBq/year)</i> | <i>Type 1 NORM total activity for incineration (MBq/year)</i> | <i>Type 2 NORM concentration (Bq/g)</i> |
|---------------------|---|---|---|---|
| U-238sec | 5 | 50 | 100 | 10 |
| U-238+ | 5 | 50 | 100 | 10 |
| U-234 | 5 | 50 | 100 | 10 |

| <i>Radionuclide</i> | <i>Type 1 NORM concentration (Bq/g)</i> | <i>Type 1 NORM total activity for landfill (GBq/year)</i> | <i>Type 1 NORM total activity for incineration (MBq/year)</i> | <i>Type 2 NORM concentration (Bq/g)</i> |
|---------------------|---|---|---|---|
| Th-230 | 5 | 50 | 100 | 10 |
| Ra-226+ | 5 | 50 | 100 | 10 |
| Pb-210+ | 100 | 1000 | 100 | 200 |
| Po-210 | 100 | 1000 | 100 | 200 |
| U-235sec | 5 | 50 | 100 | 10 |
| U-235+ | 5 | 50 | 100 | 10 |
| Pa-231 | 5 | 50 | 100 | 10 |
| Ac-227+ | 5 | 50 | 100 | 10 |
| Th-232sec | 5 | 50 | 100 | 10 |
| Th-232 | 5 | 50 | 100 | 10 |
| Ra-228+ | 5 | 50 | 100 | 10 |

1. The summation rule in respect of columns 2 and 5 of Table 4A is the sum of the quotients A/B where—

- (a) “A” means the concentration of each radionuclide listed in column 1 of Table 4A that is present in the substance or article; and
- (b) “B” means the concentration of the radionuclide specified in column 2 or 5 (as appropriate) of Table 4A.

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

- (a) “C” means the quantity of each radionuclide listed in column 1 of Table 4A that is present in the substance or article; and
- (b) “D” means the quantity of that radionuclide specified in column 3 or 4 (as appropriate) of Table 4A.”.

(d) in Table 5 (radionuclides in secular equilibrium)—

- (i) in the entry for Ra-226+—
 - (aa) after “Table 1 ” insert “and Table 4A”; and
 - (bb) for “Pb-210, Bi-210, Po-210, Po-214” substitute “Po-214, Pb-210, Bi-210, Po-210”; and
- (ii) in the entry for “U-238 sec” for Pb-210, Bi-210, Po-210, Po-214” substitute “Po-214, Pb-210, Bi-210, Po-210”.

Amendment of the High-activity Sealed Radioactive Sources and Orphan Sources Regulations 2005

4.—(1) The High-activity Sealed Radioactive Sources and Orphan Sources Regulations 2005(3) for Northern Ireland purposes are amended in accordance with paragraphs (2) to (4).

(2) In regulation 2 (interpretation)—

- (a) for the definition of “the Basic Safety Standards Directive” substitute—
 ““the Basic Safety Standards Directive” means Council [Directive 2013/59/EURATOM](#) laying down basic safety standards for protection against the dangers arising from the exposure to ionising radiation and repealing Directives 89/618/Euratom, 90/641/Euratom, 96/29/Euratom, 97/43/Euratom and 2003/122/Euratom;”;
- (b) omit the definition of “the HASS Directive”;
- (c) for the definition of “high-activity source” substitute—
 ““high-activity source” means a sealed source for which the activity of the contained radionuclide is equal to or exceeds the relevant activity value laid down in Annex III of the Basic Safety Standards Directive;”;
- (d) at the appropriate place insert—
 ““orphan source” has the same meaning as in the Basic Safety Standards Directive;
 “sealed source” has the same meaning as in the Basic Safety Standards Directive;”;
- (e) after the definition of “sealed source” insert—
 “(1A) Any reference to the “HASS Directive” in these regulations shall be deemed to be a reference to the Basic Safety Standards Directive.”.
- (3) After regulation 4 (variation of authorisations) insert—

“Exercise of the powers of the chief inspector

4A. In exercising the powers of the chief inspector in relation to a radioactive substances activity, as defined in sections 13 and 14 of the 1993 Act, the chief inspector shall comply with Articles 85, 86, 87, 89 and 91 of the Basic Safety Standards Directive.”.

- (4) For regulation 7 (records and inspections) substitute—

“Records and inspections

7. In relation to a high-activity source, the appropriate Agency or the chief inspector shall keep records of those matters —

- (a) required by Article 90 of the Basic Safety Standards Directive; and
 (b) notified to them under Article 91(1) of that Directive.”.

Amendment of the Radioactive Substances (Basic Safety Standards) Regulations (Northern Ireland) 2003

5.—(1) The Radioactive Substances (Basic Safety Standards) Regulations (Northern Ireland) 2003(4) are amended in accordance with paragraphs (2) and (3)—

- (2) in regulation 2 (interpretation)—
 (a) at the appropriate place insert—

““the Directive” means Council [Directive 2013/59/EURATOM](#) laying down basic safety standards for protection against the dangers arising from the exposure to ionising radiation and repealing Directives 89/618/Euratom, 90/641/Euratom, 96/29/Euratom, 97/43/Euratom and 2003/122/Euratom.”.

- (3) in regulation 3 (duty of Chief Inspector to observe requirements of the Directive)—
 - (a) in paragraph 1(b)—
 - (i) for “Article 13” substitute “Article 12”; and
 - (ii) for “Article 6(4)” substitute “Article 5(c);
 - (b) in paragraph 2(a) after “source” omit “from which radioactive discharges are first made after 1st May 2003”;
 - (c) in paragraph (3)—
 - (i) for sub-paragraph “(a)” substitute—
 - “(a) when estimating effective dose and equivalent dose—
 - (i) from external exposure, chapters 4 and 5 of the International Commission for Radiological Protection Publication 116(5); and
 - (ii) from internal exposure, chapter 1 of the International Commission for Radiological Protection Publication 119(6); and”;
 - (ii) in sub-paragraph (b)—
 - (aa) for “Article 45” substitute “Article 66”; and
 - (bb) after “Article 66” omit “; and” and substitute “.”; and
 - (iii) omit sub-paragraph (c).