
STATUTORY INSTRUMENTS

2018 No. 428

**ENVIRONMENTAL PROTECTION,
ENGLAND AND WALES**

**The Environmental Permitting (England and
Wales) (Amendment) (No. 2) Regulations 2018**

<i>Made</i>	- - - -	<i>21st March 2018</i>
<i>Laid before Parliament</i>		<i>28th March 2018</i>
<i>Laid before the National Assembly for Wales</i>	- -	<i>28th March 2018</i>
<i>Coming into force</i>	- -	<i>2nd May 2018</i>

The Secretary of State and the Welsh Ministers make these Regulations in exercise of the powers conferred by sections 2 and 7(9) of and Schedule 1 to the Pollution Prevention and Control Act 1999(1) (“the 1999 Act”).

In accordance with section 2(4) of the 1999 Act, the Secretary of State and the Welsh Ministers have consulted—

- (a) the Environment Agency;
- (b) the Natural Resources Body for Wales;
- (c) such bodies and persons as appear to them to be representative of the interests of local government, industry, agriculture and small business as they considered appropriate; and
- (d) such other bodies or persons as they considered appropriate.

Citation and commencement

1. These Regulations may be cited as the Environmental Permitting (England and Wales) (Amendment) (No. 2) Regulations 2018 and come into force on 2nd May 2018.

(1) 1999 c. 24. Amendments to section 2 were made by S.I. 2013/755. The functions of the Secretary of State under or in relation to section 2, so far as exercisable in relation to Wales, were transferred to the National Assembly for Wales (except in relation to offshore oil and gas exploration and exploitation) by article 3 of the National Assembly for Wales (Transfer of Functions) Order 2005 (S.I. 2005/1958). A further amendment was made to section 2 which is not relevant to this instrument. Schedule 1 was amended by S.I. 2011/1043. See also S.I. 2017/1248 designating Council Directive 2013/59/Euratom for the purposes of paragraph 20(1)(b) of Schedule 1. Further amendments to Schedule 1 were made which are not relevant to this instrument.

Amendment of the Environmental Permitting (England and Wales) Regulations 2016

2. The Environmental Permitting (England and Wales) Regulations 2016(2) are amended as set out in regulations 3 to 7.

Amendment of regulation 3 (interpretation: Directives)

3. In regulation 3—

(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 the protection against the dangers arising from exposure to ionising radiation(3)

(b) omit the definition of the HASS Directive.

Amendment of regulation 14 (content and form of an environmental permit)

4. In regulation 14(6), after sub-paragraph (a), insert—

“(aa) the keeping of radioactive material or the accumulation or removal of radioactive waste under paragraph 11(2) of Part 2 of Schedule 23, where—

(i) the activity is described in standard rules published under regulation 26(5); and

(ii) the permit authorises the carrying on of that activity at more than one site; or”.

Amendment of regulation 80 (review: England)

5. In regulation 80(2), omit sub-paragraph (g).

Amendment of Schedule 8 (Part B mobile installations and Part B mobile plant etc.)

6. In Schedule 8, in paragraph 5(3)(a), for “Article 1” substitute “Article 4”.

Amendment of Schedule 23 (radioactive substances activities)

7. Schedule 23 is amended as set out in the Schedule to these Regulations.

21st March 2018

21st March 2018

Richard Harrington
Parliamentary Under Secretary of State
Department for Business, Energy and Industrial
Strategy
Lesley Griffiths
Cabinet Secretary for Energy, Planning and
Rural Affairs,
one of the Welsh Ministers

(2) [S.I. 2016/1154](#). Amendments have been made to these Regulations which are not relevant to this instrument.

(3) OJ No L 13, 17.01.2014, p. 1.

SCHEDULE

Regulation 7

Amendment of Schedule 23

Amendment of Part 2 (interpretation)

1. Part 2 is amended as follows.
2. In paragraph 1(2), for “or either of Tables 5 and 7” substitute “or any of Tables 4A, 5 or 7”.
3. In paragraph 2(1), in the definition of “type 2 NORM industrial activity”, after paragraph (k) omit “or” and insert—
 “(ka) geothermal energy production, or”.
4. In paragraph 3(1), after “9” insert “, 9A”.
5. After paragraph 6 insert—

“Dilution to reduce concentration of radioactivity

- 6A. For the purposes of paragraphs 4, 5 and 6, a substance or article is to be treated as having a concentration of radioactivity which exceeds the value referred to in paragraph 4(2), 5(c)(i) or 6(a), if a person has diluted the substance or article with the intention of ensuring that its concentration of radioactivity does not exceed that value.”.
6. After paragraph 9 insert—

“Historic radium contamination

- 9A. 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 Schedule;
 - (c) the contamination occurred prior to 13th May 2000; and
 - (d) the concentration of Ra-226 or any of its progeny 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 Bq/g;
 - (ii) for a substance which is any other liquid, 1 Bq/l; or
 - (iii) for a substance which is a gas, 0.01 Bq/m³.”.

Amendment of Part 3 (tables of radionuclides and summation rules)

7. Part 3 is amended as follows.
8. In paragraph 1(1), in Table 1, in the entries for U-238sec, Ra-226+, Th-232sec and Th-228+, in the second column of each entry for “0.5” substitute “1”.
9. In paragraph 2(1), for Table 2 substitute—

<i>“Radionuclide</i>	<i>Concentration in becquerels per gram (Bq/g)</i>
H-3	10 ²

Status: This is the original version (as it was originally made). This item of legislation is currently only available in its original format.

<i>“Radionuclide</i>	<i>Concentration in becquerels per gram (Bq/g)</i>
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
Fe-59	1
Co-55	10
Co-56	0.1
Co-57	1

<i>“Radionuclide</i>	<i>Concentration in becquerels per gram (Bq/g)</i>
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
Sr-92	10
Y-90	10 ³
Y-91	10 ²

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<i>“Radionuclide</i>	<i>Concentration in becquerels per gram (Bq/g)</i>
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
Ag-105	1
Ag-108m+	0.1
Ag-110m+	0.1

<i>“Radionuclide</i>	<i>Concentration in becquerels per gram (Bq/g)</i>
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
I-130	10
I-131+	1
I-132	10

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

<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	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
Pt-197m	10 ²
Au-198	10
Au-199	10 ²

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<i>“Radionuclide</i>	<i>Concentration in becquerels per gram (Bq/g)</i>
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
Th-229+	0.1
Th-230	0.1

<i>“Radionuclide</i>	<i>Concentration in becquerels per gram (Bq/g)</i>
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
Pu-240	0.1
Pu-241	10

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<i>“Radionuclide</i>	<i>Concentration in becquerels per gram (Bq/g)</i>
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
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 the International Atomic Energy Agency publication “Application of the Concepts of

“Radionuclide	Concentration in becquerels per gram (Bq/g)
	Exclusion, Exemption and Clearance”, IAEA Safety Standards Series No. RS-G-1.7(4).”

Amendment of Part 4 (the Basic Safety Standards Directive)

10. Part 4 is amended as follows.

11. In paragraph 1(b)—

- (a) for “Article 13” substitute “Article 12”; and
- (b) for “Article 6(4) substitute “Article 5(c)”.

12. In paragraph 2—

- (a) in sub-paragraph (1)(a) omit “from which radioactive discharges are first made on or after 13th May 2000”; and
- (b) for sub-paragraph (2) substitute—
 - “(2) In exercising those relevant functions, the regulator must observe the requirements of the following provisions—
 - (a) when estimating effective dose and equivalent dose—
 - (i) from external exposure, chapters 4 and 5 of International Commission on Radiological Protection Publication 116(5); and
 - (ii) from internal exposure, chapter 1 of International Commission on Radiological Protection Publication 119(6); and
 - (b) in estimating population doses, Article 66 of the Basic Safety Standards Directive.”.

13. After Section 2 insert—
“SECTION 3

Miscellaneous duties of the regulator

Inspection programmes

5. When establishing an inspection programme for the purposes of regulation 34(2) (periodic inspections of regulated facilities) in relation to radioactive substance activities, the regulator must 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 these Regulations.

Inspection findings

6. Where a regulator makes an inspection of a regulated facility that is a radioactive substances activity, the regulator must—

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- (4) Available from www-pub.iaea.org. A hard copy of this publication can be obtained by writing to: Nuclear Decommissioning and Radioactive Waste Policy Team, Department for Business, Energy & Industrial Strategy, 1 Victoria Street, London, SW1H 0ET.
 - (5) Available from www.icpr.org. A hard copy of this publication can be obtained by writing to: SAGE Publications Ltd, 1 Oliver’s Yard, 55 City Road, London, EC1Y 1SP.
 - (6) Available from www.icpr.org. A hard copy of this publication can be obtained by writing to: Nuclear Decommissioning and Radioactive Waste Policy Team, Department for Business, Energy & Industrial Strategy, 1 Victoria Street, London, SW1H 0ET.

- (a) record the findings of that inspection; and
- (b) communicate those findings to the operator of the regulated facility.

Radioactive waste: requirements to be imposed on permit holders

7.—(1) The regulator must require a person who holds an environmental permit to carry on the radioactive substances activity described in paragraph 11(2)(b) (disposing of waste) or (c) (accumulating waste) of Part 2 of this Schedule 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 paragraph “radioactive waste adviser” means an individual, or group of individuals, 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 regulator.

Dilution of radioactive material and radioactive waste

8. In exercising its relevant functions in relation to a radioactive substances activity, the regulator must observe the requirements of Article 30(4) of the Basic Safety Standards Directive.

Monitoring of discharges

9.—(1) This paragraph applies where the regulator is exercising relevant functions in relation to a radioactive substances activity where there are radioactive discharges authorised by an environmental permit.

(2) The regulator must impose appropriate environmental permit conditions concerning

- (a) the monitoring, or the evaluation, of radioactive airborne or aqueous discharges into the environment; and
- (b) the reporting to the regulator of the results of such monitoring or evaluation.

(3) For the purposes of sub-paragraph (2), where the regulator is exercising relevant functions in relation to a nuclear power station or nuclear reprocessing plant, the environmental permit conditions imposed must require the monitoring of radioactive discharges and reporting to the regulator of such information on radioactive discharges as the appropriate authority directs.”.

Amendment of Part 5 (the HASS Directive)

14. Part 5 is amended as follows.

15. For the heading to Part 5 substitute “The control of high-activity and other sources”.

16. In paragraph 1—

- (a) 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;”;
 - (b) in the definitions of “orphan source” and “sealed source”, for “HASS Directive” substitute “Basic Safety Standards Directive”.
17. In the heading to section 3, omit “orphan”.
18. For paragraph 5 substitute—
 - “5. In exercising relevant functions in relation to a radioactive substances activity, the regulator must comply with Articles 85 to 89 and 91 of the Basic Safety Standards Directive.”.
19. For paragraph 6 substitute—
 - “6. In relation to a high-activity source, the regulator must keep records of those matters —
 - (a) required by Article 90 of the Basic Safety Standards Directive, and
 - (b) notified to it under Article 91(1) of that Directive.”.
20. In paragraph 8, in sub-paragraph (1)(a), before “recover”, insert “control and”.

Amendment of Part 6 (radioactive substances activity exemptions)

21. Part 6 is amended as follows.
22. In paragraph 1—
 - (a) 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 regulator, 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;”;
 - (b) for the definition of “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
 - (c) in the definition commencing ““Table 4””, after ““Table 4””, insert ““Table 4A””.
23. For paragraph 2 substitute—
 - “2.—(1) In this Part “NORM waste” means a substance or article which—
 - (a) is solid radioactive waste under—
 - (i) paragraph 4 of Part 2 of this Schedule (NORM industrial activities); or
 - (ii) paragraph 5 of that Part (processed radionuclides of natural terrestrial or cosmic origin) where the waste arises from the remediation of land contaminated by radium and the contamination occurred prior to 13 May 2000;

- (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 (3) applies.

(2) In this Part—

“type 1 NORM waste” means NORM waste which—

- (a) has a concentration of radioactivity that does not exceed the value specified in column 2 of Table 4A; and
- (b) is not waste to which sub-paragraph (4) applies;

“type 2 NORM waste” means NORM waste which has a concentration of radioactivity that exceeds the value specified in column 2 of Table 4A.

(3) This sub-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.

(4) This sub-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 2 of Table 4A.”.

24. In paragraph 4, at the end insert—

“(8) D is not exempt under sub-paragraph (7) from the requirement for an environmental permit where the waste accumulated is or contains a high-activity or similar source.”.

25. In paragraph 5(2) omit “with a NORM waste concentration which is less than or equal to 10 Bq/g”.

26. In paragraph 7—

(a) for sub-paragraph (1) substitute—

“(1) This paragraph applies to the following radioactive substances activities—

- (a) the activity described in paragraph 11(2)(c) of Part 2 of this Schedule (“Activity A”);
- (b) the activity described in paragraph 11(4) of Part 2 of this Schedule (“Activity B”);

(b) in sub-paragraphs (2) and (3)—

- (i) omit “Subject to sub-paragraph (5) where it applies,” in both places it appears;
- (ii) for “Qualifying NORM Waste” substitute “NORM waste” in both places it appears; and

(c) omit sub-paragraphs (4) and (5).

27. In paragraph 16—

(a) for sub-paragraph (1)(a) substitute—

“(a) subject to sub-paragraph (2)—

- (i) solid radioactive waste described in an entry in column 1 of Table 6 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 the value specified in column 2 when the source was intact, or”.

- (b) in sub-paragraph (2)(b) omit “with a NORM waste concentration which is less than or equal to 10 Bq/g”.

28. For paragraph 17(2)(d) substitute—

- “(d) where the waste is a high-activity or similar source, notify the details of the disposal to the regulator within 14 days of the disposal (including, for a high-activity source, the information required by Annex XIV of the Basic Safety Standards Directive), in such form as may be required by the regulator, and”.

29. In paragraph 18—

- (a) for sub-paragraph (1) substitute—

“(1) This paragraph applies to the following radioactive substances activities carried on in respect of NORM waste—

- (a) the activity described in paragraph 11(2)(b) of Part 2 of this Schedule (“Activity A”); and
(b) the activity described in paragraph 11(4) of Part 2 of this Schedule (“Activity B”).”;

- (b) in sub-paragraph (2)—

- (i) at the beginning omit “Subject to sub-paragraph (6),”; and
(ii) omit “type 1 NORM waste or type 2”;

- (c) in sub-paragraph (4)—

- (i) in both places it appears, for “ 5×10^{10} Bq” substitute “the value specified in column 3 of Table 4A”; and
(ii) at the beginning of paragraph (b) omit “subject to sub-paragraph (6),”;

- (d) at the beginning of sub-paragraph (5) omit “Subject to sub-paragraph (6),”; and

- (e) omit sub-paragraphs (6) and (7).

30. After paragraph 18 insert—

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

18A. A person is exempt from the requirement for an environmental permit to carry on the radioactive substances activity described in paragraph 11(2)(b) (disposing of waste) of Part 2 of this Schedule where the only radioactive waste disposed of is gaseous NORM waste released in the production of oil and gas.”.

- 31.** In paragraph 19(2)(b)(i) for “ 1×10^8 Bq” substitute “the value in column 4 of Table 4A”.

32. In paragraph 25, in Table 4, in the final row, in the second column for the words from “in respect” to the end, substitute “ 2×10^8 Bq of all other radionuclides, (no more than 1×10^8 Bq of which is contained in radioactive material)”.

33. After paragraph 25 insert—

“Table 4A

25A.—(1) The Table 4A referred to in Sections 2, 5 and 6 of this Part is—

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
U238+	5	50	100	10
U-234	5	50	100	10
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
Th-228+	5	50	100	10

(2) 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 that radionuclide specified in column 2 or 5 (as appropriate) of Table 4A.

(3) 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.”.

34. In paragraph 26—

- (a) in sub-paragraph (1), in Table 5, in the final row of column 2 for “Health Protection Agency’s” substitute “Public Health England”;
- (b) in sub-paragraph (3), for “column 2” substitute “column 3”.

35. In paragraph 30, in Table 8—

- (a) in the entry for Ra-226+—
 - (i) before “Table 5” insert “Table 4A and”; and
 - (ii) for “Pb-210, Bi-210, Po-210, Po-214” substitute “Po-214, Pb-210, Bi-210, Po-210”;
- (b) 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”.

EXPLANATORY NOTE

(This note is not part of the Regulations)

These Regulations are part of a package of measures to transpose Council Directive 2013/59/Euratom laying down basic safety standards for protection against the dangers arising from exposure to ionising radiation and repealing Council Directive 89/618/Euratom, 90/641/Euratom, 96/29/Euratom, 97/43/Euratom and 2003/122/Euratom (the Basic Safety Standards Directive). Most of the transposition measures are being dealt with by amending or replacing existing statutory instruments. These Regulations transpose provisions of the Basic Safety Standards Directive relevant to the environmental permitting regime as it applies to radioactive substances activities, by amending the Environmental Permitting (England and Wales) Regulations 2016 ([S.I. 2016/1154](#)) (the 2016 Regulations). These Regulations also make amendments not required for transposition but which removes unnecessary regulatory burdens.

Schedule 23 to the 2016 Regulations concerns radioactive substances activities. Where a radioactive substances activity is in scope (Part 2 of Schedule 23) of the environmental permitting regime a permit is required, unless an exemption (Part 6 of Schedule 23) applies. Amendments to Schedule 23 are set out in the Schedule to these Regulations.

These Regulations also amend existing references to and definitions from directives repealed by the Basic Safety Standards Directive.

Regulation 4 amends regulation 14 of the 2016 Regulations, to except certain radioactive substances activities from the requirement that a permit includes a site map or plan. The exception only applies to standard rules permits covering multiple sites.

Paragraph 3 of the Schedule adds geothermal energy production to the list of NORM industrial activities (that is, industrial activities involving naturally occurring radioactive material where the radioactivity is incidental to the activity), bringing such activity within scope of the environmental permitting regime.

Paragraph 5 adds a new provision disallowing dilution: where the concentration of radioactivity in a substance or article is reduced by diluting it to make it out of scope, it will remain in scope.

Paragraph 6 adds a new out of scope provision for historic radium contamination. Radioactive material or waste generated when contaminated land is remediated will be out of scope if the radium concentration is below the specified limit and the contamination occurred before 13 May 2000.

Paragraph 8 substitutes new out of scope concentration values for some radionuclides arising from NORM industrial activities (column 2 of Table 1 in Part 3), and paragraph 9 replaces the table of out of scope concentration values, inserting new values for some radionuclides for the purposes of the definitions of radioactive material and waste (Table 2 in Part 3).

Paragraph 13 inserts new Section 3 in Part 4, imposing miscellaneous duties on the regulator (the Environment Agency, for England, and the Natural Resources Body for Wales). Requirements are imposed in relation to the inspection programme the regulator establishes, and the regulator must record and communicate inspection findings. The regulator must require permit holders to undertake certain tasks, and to seek advice on those tasks from a radioactive waste adviser. The regulator must not allow the dilution of radioactive material for the purpose of it being released from regulatory control. The regulator must require permit holders to monitor and report on authorised radioactive discharges. Where the monitoring relates to a nuclear power station or nuclear reprocessing plant, the regulator must require monitoring in accordance with a direction issued by the appropriate authority (the Secretary of State, in relation to England, or the Welsh Ministers).

Paragraph 16 substitutes a new definition of high-activity sealed source, by reference to Annex III of the Basic Safety Standards Directive which sets out new radioactivity values for radionuclides contained in a sealed source.

Paragraph 20 inserts a new requirement on the regulator to be prepared or have made provision for the control of any orphan source (that is, a radiation source which should be but is not under regulatory control because, for example, it has been lost or stolen).

Paragraphs 23, 25, 26, 27(b), 29 and 31 to 33 make a series of amendments to the definitions of Type 1 and Type 2 NORM waste for the purposes of exemptions for accumulating radioactive waste, disposing of solid radioactive waste and disposing of NORM waste. New radioactivity concentration limits are imposed (new Table 4A). Specific provision is made disallowing dilution for the purposes of reducing the concentration of radioactivity in waste to bring it within the NORM waste exemption.

Paragraph 24 inserts a new provision disallowing the exemption for accumulating waste where the waste is or contains a high-activity sealed source.

Paragraph 27 inserts a new provision allowing the solid radioactive waste exemption to be claimed for broken sealed sources containing tritium (known as gaseous tritium light devices).

Paragraph 30 inserts a new provision to create an exemption for the disposal of gaseous NORM waste released in oil and gas production (known as venting or flaring).

An updated transposition note is submitted with the Explanatory Memorandum which is available alongside the instrument on www.legislation.gov.uk. A full impact assessment has not been produced for this instrument as no, or no significant, impact on the private, voluntary or public sector is foreseen.