ERRATA

Corrections to published RIFE reports

	Page, Section	Comment
RIFE 26, 2020	Page 33	The paragraph should read: "During the first pandemic lockdown period (March 2020 to July 2020), there were no operations carried out at Magnox sites and discharge monitoring was suspended with agreement from the Environment Agency in accordance with published COVID-19 regulatory positions statements, which are available on the www.gov.uk website: https://www.gov.uk/government/collections/covid-19-regulatory-position-statements. Assessments of discharges were made once the sites returned to operations and all discharge reporting completed by September 2020."
	Page 264	The paragraph should read: "The Government of the Isle of Man undertakes their own independent radioactivity monitoring programme and provides an indication of the far-field effects of current and historical discharges from Sellafield and other UK nuclear sites. These are reported annually: https://www.gov.im/about-the-government/departments/environment-food-and-agriculture/regulation-directorate/government-laboratory/environmental-radioactivity/."
RIFE 25, 2019	Table 2.17	Sellafield. These are small changes to the total dose and specific dose shown below. The apply to the relevant points of text, tables (S, 1.2, 1.3, 1.4, 2.17 and 6.1) and figures (S, 1.2, 2.1, 2.6, 2.7 and 2.8).

Individual radiation exposures, Sellafield, 2019

Representative person	Exposure, mSv per year							
	Total	Seafood (nuclear industry discharges)	Seafood (other discharges)	Other local food	External radiation from intertidal areas, river banks or fishing gear	Intakes of sediment and water	Gaseous plume related pathways	Direct radiation from site
'Total dose' - maximum effect of all sources								
Adult molluscs consumers	**0.25[a]**	**0.038**	**0.19**	**-**	**0.018**	**-**	**-**	**-**
'Total dose' - maximum effect of liquid release source								
Adult molluscs consumers	**0.25[a]**	**0.038**	**0.19**	**-**	**0.018**	**-**	**-**	**-**
Source specific doses								
Seafood consumers								
Local seafood consumers (habits averaged 2015-19)	0.27[b]	0.036	0.21	-	0.027	-	-	-
Local seafood consumers (habits for 2019)	0.27[c]	0.034	0.21	-	0.028	-	-	-

[a] *The dose due to nuclear industry discharges was 0.055 mSv*
[b] *The dose due to nuclear industry discharges was 0.064mSv*
[c] *The dose due to nuclear industry discharges was 0.062 mSv*

	Page 199, Table 6.7	The row labels ^{131m} and ^{137}Xe, should read ^{131m}Xe and ^{137}Cs, respectively

	Page, Section	Comment
	Page 211, Figure 7.5	The figure caption should read "Concentrations (Bq l^{-1}) of caesium-137 in surface water from the English Channel, March-April, 2019
RIFE 24, 2018	Page 47, Figure 2.5	The 2018 ^{99}Tc value for Ribble Estuary Shrimp should be 0.12 Bq kg^{-1} (incorrectly reported as 0.77 Bq kg^{-1}). This is plotted correctly in Figure 2.5, RIFE 25.
	Page 57, Figure 2.11	The 2018 ^{99}Tc value at Bradwell should be <6.5 Bq kg^{-1}. This is plotted correctly in Figure 2.11, RIFE 25. The 2017 and 2018 ^{99}Tc values for the Isle of Scilly should be 2.8 and 4.7 Bq kg^{-1}, respectively. These are plotted correctly in Figure 2.11, RIFE 25. Further data for Isle of Scilly are presented below.

Concentrations of radionuclides in aquatic plants from the Isle of Scilly

Year	Location	Material	No. of sampling observations	Mean radioactivity concentration (fresh), Bq kg^{-1}					
				^{60}Co	^{95}Zr	^{95}Nb	^{99}Tc	^{106}Ru	^{110m}Ag
2017	Isle of Scilly	Seaweed	1	<0.76	<0.86	<0.44	2.8	<4.0	<0.72
2018	Isle of Scilly	Seaweed	1	<0.55	<0.70	<0.36	4.7	<3.4	<0.53

Year	Location	Material	No. of sampling observations	Mean radioactivity concentration (fresh), Bq kg^{-1}					
				^{125}Sb	^{134}Cs	^{137}Cs	^{144}Ce	^{155}Eu	^{241}Am
2017	Isle of Scilly	Seaweed	1	<2.4	<0.64	<0.50	<1.5	<0.75	<0.54
2018	Isle of Scilly	Seaweed	1	<2.1	<0.48	<0.40	<1.8	<0.84	<0.57

All measurements are made on behalf of the Environment Agency

	Page 74/75, Table 2.2a	The footnotes in the table have been applied incorrectly. Footnotes d and f should apply to Ribble Estuary Shrimps Footnotes e should apply to Ribble Estuary Mussels Footnote g should apply to Freshwater from Ulnes Walton

Page, Section	Comment
Table 2.3b and Table 2.10	The Beta radiation dose rates reported in Tables 2.3b and 2.10 are incorrectly presented. Corrected data presented below. The paragraph "The equivalent dose to skin…" (page 45) Should read "The equivalent dose to skin as a result of fishermen handling their fishing gear (which is potentially contaminated with radioactivity) was 0.030 mSv in 2018." The sentence "In 2018, the skin doses to a fisherman from handling fishing gear…" (Page 54) Should read "In 2018, the skin doses to a fisherman from handling fishing gear (including a component due to naturally occurring radiation), and a bait digger and shellfish collector from handling sediment, were 0.13 mSv and 0.064 mSv, respectively (Table 2.17)…" These revised doses apply to relevant parts of Tables 1.4, 2.1 and 2.17.

Table 2.3(b) Monitoring of radiation dose rates near Springfields, 2018

Location	Material or ground type	No. of sampling observations	µGy h^{-1}
Mean beta dose rates			µSv h^{-1}
Springfields	Fishing net	1	<0.089
Springfields	Tarpaulin	1	<0.090

Table 2.10 Beta radiation dose rates on contact with fishing gear on vessels operating off Sellafield, 2018

Vessel or location	Type of gear	No. of sampling observations	Mean beta dose rate in tissue, µSv h^{-1}
101	Nets	1	<0.084
111	Nets	1	<0.083
South 1	Lobster pots	1	0.12
South 2	Lobster pots	1	<0.092
South 3	Lobster pots	1	<0.092
South 4	Lobster pots	1	<0.092

Page 80, Table 2.5	The value of ^{99}Tc in Whitehaven Cod should read <0.15 Bq kg^{-1}
Page 109, Table 3.2(a)	The Gross beta values in freshwater were omitted. These are presented below.

Location	Gross beta, Bq l^{-1}
Loch Calder	0.090
Loch Shurrery	0.048
Loch Baligill	0.13
Heldale Water	0.060

Page 112, Table 3.4(a)	The 2018 activity concentration data for Seaweed from Bognor Rock were omitted. These are presented below.

Page, Section	Comment

Table 3.4(a) Concentrations of radionuclides in aquatic plants near Winfrith, 2018

Material	Location	No. of sampling observations	Mean radioactivity concentration (fresh), Bq kg^{-1}			
			^{60}Co	^{99}Tc	^{137}Cs	^{241}Am
Marine samples						
Seaweed	Bognor Rock	2E	<0.57	<1.7	<0.41	<0.44

E Measurements labelled "E" are made on behalf of the Environment Agency,

Page 115, 121

Page 115.
The key point for Dungeness should read
"Gaseous discharges of tritium and carbon-14 decreased, and liquid discharges of tritium increased and sulphur-35 decreased, from Dungeness B in 2018"

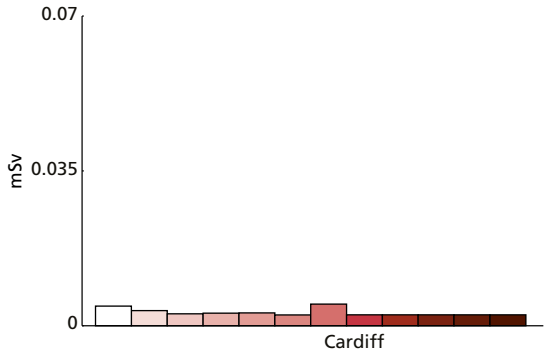
Page 121.
The sentence starting "Discharges of tritium…" should read "Discharges of tritium increased and sulphur-35 decreased (both by small amounts) from Dungeness B…"

Page 151, Figure 5.1

The caption descriptor should read "including discharges to Silchester sewer and Aldermaston Stream".

Page 176, Figure 6.1

The plot for Cardiff is incorrect, it is presented correctly below.



Page 209, Table 8.12

Table 8.12 was omitted from RIFE 24, these data are presented below.

The paragraph "SEPA took a series of marine sediment and seawater…" Should be replaced by

"In 2018, SEPA took a series of marine sediment and seawater samples from across Scotland and the results are given in Table 8.12. All radionuclides were reported as less than values in seawater. Tritium was positively detected in two seawater samples from Cloch Point. Caesium-137, europium-155 and americium-241 were positively detected in some sediment samples. The results are generally consistent with those to be expected from measurements at nuclear licensed sites in this report (see, for example, Section 3). Overall, the results support the concept of a reducing trend in concentration with distance from the Sellafield site, albeit confounded by natural variability due to sediment type."

Table 8.12 Concentrations of radionuclides in marine sediments and seawater - background survey in Scotland, 2018[a]

Sample location and type	Sample source	No. of sampling observ-ations	Mean radioactivity concentration, Bq kg^{-1} (dry)[b]									
			^{3}H	^{60}Co	^{95}Nb	^{110}Ag	^{125}Sb	^{137}Cs	^{155}Eu	^{241}Am	Gross alpha	Gross beta
Marine Sediments												
Firth of Forth	Lower Taylorton	1	<5.0	<0.14	<8.7	<0.33	<0.40	4.4	<0.41	0.81	220	1700
Firth of Forth	Bannockburn	1	<5.0	<0.13	<7.8	<0.32	<0.37	5.3	<0.29	0.82	220	1800
Firth of Forth	Fallin	1	<5.0	<0.15	<8.4	<0.34	<0.43	6.9	<0.32	1.1	250	2100
Firth of Forth	Devon Confluence	1	<5.0	<0.14	<5.3	<0.33	<0.38	13	2.2	1.6	25	2000
Forth Estuary	Swing Bridge	1	<5.0	<0.10	<4.8	<0.19	<0.23	3.2	<0.26	<0.29	220	1500
Firth of Clyde	NW Cloch Point	1	<5.0	<0.11	<7.0	<0.26	<0.31	14	<0.21	4.3	190	1400
Firth of Clyde	West Cloch Point	1	<5.0	<0.12	<7.6	<0.28	<0.40	29	<0.30	6.80	280	1600
Inner Clyde	Leven Confluence	1	<5.0	<0.10	<3.1	<0.13	<0.15	2.0	<0.19	<0.18	83	550
Inner Clyde	Dalmuir	1	<5.0	<0.10	<6.2	<0.23	<0.31	15	<0.23	0.8	82	1200
Inner Clyde	Kelvin	1	<5.0	<0.13	<8.9	<0.33	<0.44	38	<0.28	1.6	110	1200
Seawater												
Firth of Forth	Lower Taylorton	1	<1.0	<0.10	<0.24	<0.10	<0.16	<0.10	<0.11	<0.10		
Firth of Forth	Bannockburn	1	<1.0	<0.10	<0.23	<0.10	<0.12	<0.10	<0.10	<0.10		
Firth of Forth	Fallin	1	<1.0	<0.10	<0.19	<0.10	<0.14	<0.10	<0.11	<0.10		
Firth of Forth	Devon Confluence	1	<1.0	<0.1	<0.25	<0.10	<0.15	<0.10	<0.14	<0.10		
Forth Estuary	Swing Bridge	1	<1.0	<0.10	<0.26	<0.10	<0.15	<0.10	<0.13	<0.10		
Firth of Clyde	NW Cloch Point	1	1.1	<0.10	<0.16	<0.10	<0.14	<0.10	<0.10	<0.10		
Firth of Clyde	West Cloch Point	1	1.4	<0.10	<0.17	<0.10	<0.14	<0.15	<0.10	<0.12		
Inner Clyde	Leven Confluence	1	<1.0	<0.10	<0.13	<0.10	<0.13	<0.10	<0.11	<0.10		
Inner Clyde	Dalmuir	1	<1.0	<0.10	<0.17	<0.10	<0.18	<0.10	<0.16	<0.10		
Inner Clyde	Kelvin	1	<1.0	<0.10	<0.13	<0.10	<0.13	<0.10	<0.10	<0.10		

[a] *Results are available for other radionuclides detected by gamma spectrometry. All such results are less than the limit of detection*
[b] *Except for seawater where units are Bq l^{-1}*

	Page, Section	Comment
	Appendix 1, page 24, Table X2.2	The consumption and occupancy rates for the Sellafield M (Sellafield fishing community 2014-2018) group should read: • 20 kg y^{-1} Cod • 35 kg y^{-1} Other fish • 11 kg y^{-1} Crabs • 14 kg y^{-1} Lobsters • 10 kg y^{-1} Other crustaceans • 7.6 kg y^{-1} Winkles • 4.2 kg y^{-1} Other molluscs • 870 hours y^{-1} over mud and sand The sentence "For molluscs (winkles and other molluscs)…" (page 52) should read "For molluscs (winkles and other molluscs), the overall consumption rates were unchanged in the 2018 and decreased in the 2014–2018 datasets." The revised doses to this group are given below. They apply to the relevant portions of Tables 1.4, 2.17 and 7.1. Table 2.16 has been corrected for RIFE 25 onwards. The sentence "The doses from artificial radionuclides to people…" (page 53) should read "The doses from artificial radionuclides to people, who consume a large amount of seafood, were 0.066 mSv (0.082 mSv in 2017) and 0.072 mSv (0.085 mSv in 2017) using the annual and five-year rolling average habits data, respectively, in 2018." The sentence "Taking artificial and enhanced natural radionuclides together…" (page 53) should read Taking artificial and enhanced natural radionuclides together, the source specific doses were both 0.44 mSv (values are rounded to two significant figures) for the both the annual and five-year rolling average habits data.

Table 2.17 Individual radiation exposures, Sellafield, 2018

Representative person	Exposure, mSv per year							
	Total	Seafood (nuclear industry discharges)	Seafood (other discharges)	Other local food	External radiation from intertidal areas, river banks or fishing gear	Intakes of sediment and water	Gaseous plume related pathways	Direct radiation from site
Source specfic doses								
Seafood consumers								
Local seafood consumers (habits averaged 2014-18)	0.40[f]	0.044	0.33	-	0.028	-	-	-

[f] *The dose due to nuclear industry discharges was 0.072 mSv*

	Page, Section	Comment
RIFE 23 2017	Page 13, Technical summary	The two sentences starting "In Wales, … " should be replaced with "In Wales, the representative person who received the highest dose from permitted releases of radioactivity consumed locally produced food at Trawsfynydd. The dose was 0.028 mSv in 2017."
	Page 42, Figure 2.2	The discharge data for non-uranic alpha (liquid) for 2017 was 9.43E+06 Bq, not zero. This is shown correctly in Figure 2.2 in RIFE-24
	Page 91, Table 2.12	The concentration of sulphur-35 in Half Moon Bay Seaweed was 9.4 Bq kg^{-1}
	Page 108, Table 3.2(a)	The correct value for ^{238}Pu in cod collected from Scrabster is 0.00035 Bq kg^{-1} (fresh).
	Page 145, Table 4.6(a)	The concentration of polonium-210 in Morecambe Mussels was 41 Bq kg^{-1}
	Page 149, Table 4.8(a)	The concentration of strontium-90 in Southwold Harbour sediments was <6.6 Bq kg^{-1}
	Page 164, Section 5.2	Replace "Gaseous and liquid discharges may be made under permit but were both reported as nil in 2017." With "Gaseous and liquid discharges may be made under permit. Gaseous discharges were reported as nil in 2017."
	Pages 220-221, Tables 8.7 (footnote a) and 8.9, Page 207, section 8.8	In Table 8.7, footnote a, the concentrations of polonium-210 and radium-226 the values are <0.010 Bq l^{-1} and 0.012 Bq l^{-1}, respectively. The revised doses are given (in bold) in Table 8.9 (abbreviated below). Subsequently (on page 207) "The mean annual dose from consuming drinking water in the UK was assessed as 0.015 mSv in 2017 (Table 8.9). The highest annual dose was estimated to be 0.028 mSv for drinking water from Matlock, Derbyshire. The estimated doses were dominated by naturally occurring radionuclides and are similar to those in recent years."

Table 8.9 Doses from radionuclides in drinking water, 2017

Region	Mean Exposure, mSv per year			Maximum exposure, mSv per year	
	Man-made radionuclides	Naturally occurring radionuclides	All radionuclides	Location	All radionuclides
England	<0.001	**0.028**	**0.028**		**0.028**
UK	<0.001	**0.014**	**0.015**	**Matlock, Groundwater, Derbyshire**	**0.028**

	Page 241, Table A2.1, Dounreay (Vulcan)	The "Beta" category should read "All other radionuclides"

	Page, Section	Comment
	Page 249, Table A2.4	The transfer data for Dounreay should read: Volume – 4.88E+02 m^3, Alpha – 2.48E+09 Bq and Beta/Gamma – 4.54E+10 Bq
RIFE-22 2017	Page 135, Table 4.2(b)	The mean gamma dose rate for Lydney Rocks should read 0.099.
	Page 246, Table A2.3	Niobium-84 should read Niobium-94.
Previous RIFE reports (RIFE 9,11, 13-22)	Table A2.1	**Gaseous discharges from Dounreay** In April 2017, DSRL notified SEPA that incorrect duct flowrate information had been used in the calculation of gaseous tritium and non-alpha discharges from the PFR facility. Further to this, DSRL have also undertaken a site wide review of their discharge monitoring arrangements. This review identified improvements in particulate flow measurement and the calculation of tritium discharges going back to 2003 for some radionuclide groupings. The revised discharge data for tritium, alpha, beta and non-alpha from Dounreay are given in the table below. **This table also supersedes the previously published "Gaseous Discharges from Dounreay" (RIFE 15-22) errata item.**

	Year	Revised Discharges	Revised % of annual limit
Prototype Fast Reactor: **Tritium**	2009	2.55E+11	2.4
	2010	7.19E+10	<1
	2011	4.74E+10	<1
	2012	9.56E+10	<1
	2013	6.18E+09	<1
Discharge authorisation revised 2014: **Non-alpha**	2014	8.05E+07	4.7
	2015	1.21E+08	7.9
	2016	1.11E+08	6.6
Discharge authorisation revised 2014: **Tritium**[a]	2014	3.25E+11	1.9
	2015	4.33E+10	<1
	2016	4.46E+10	<1
East Minor Sources: **Alpha**	2003	1.31E+05	<1
	2005	7.75E+04	<1
	2007	7.86E+04	<1
	2008	6.27E+04	<1
	2009	9.24E+04	<1
	2010	6.38E+04	<1
	2011	7.43E+04	<1
	2012	6.06E+04	<1
	2013	8.80E+04	<1
East Minor Sources: **Beta**	2003	1.31E+05	<1
	2005	7.75E+04	<1
	2007	7.86E+04	<1
	2008	6.27E+04	<1
	2009	9.24E+04	<1
	2010	6.38E+04	<1
	2011	7.43E+04	<1
	2012	6.06E+04	<1
	2013	8.80E+04	<1

[a] Discharge data for tritium (2014-2016) are still under review. Should these values be revised, data will be updated in RIFE 25

	Page, Section	Comment
Previous RIFE reports (RIFE 15-22 inclusive)	Table A2.1	Gaseous Discharges from Dounreay In April 2017, DSRL notified SEPA that incorrect duct flowrate information had been used in the calculation of gaseous tritium and non-alpha discharges from the PFR facility. The revised data for tritium and non-alpha discharges are shown below. Values for 2014 are for the period May to December (see RIFE 21 for more details).

	Year	Revised Discharges	Revised % of annual limit
Prototype Fast Reactor: **Tritium**	2009	2.55E+11	2.4
	2010	7.19E+10	<1
	2011	4.74E+10	<1
	2012	9.56E+10	<1
	2013	6.18E+09	<1
Discharge authorisation revised 2014: **Non-alpha**	2014	8.05E+07	4.7
	2015	1.21E+08	7.9
	2016	1.11E+08	6.6
Discharge authorisation revised 2014: **Tritium**	2014	3.25E+11	1.9
	2015	4.33E+10	<1
	2016	4.46E+10	<1

RIFE-21 2016	Page 44, Section 2	The two sentences starting "During the financial year…", should be replaced with "During the financial year, 2015/16, 460 tonnes of spent oxide fuel was reprocessed in THORP, compared with an original target of 435 tonnes, and the highest reprocessing throughput since NDA too ownership of the site. The reprocessing of spent Magnox fuel for 2015/16 was a total of 390 tonnes of fuel, compared with an original performance target of 477 tonnes." The footnote is not correct and no longer applies.
	Page 50, Figure 2.8	The carbon-14, strontium-90 and caesium-137 discharge data for 2015 (figure 2.8) were plotted incorrectly, it is shown corrected in Figure 2.9 in RIFE-22.
	Page 98, Section 3.2	Replace Iodine-125 with iodine-131 (twice).
	Page 143, Table 4.9(a)	The concentration of plutonium-239+240 in sediment (pipeline) was 109 Bq kg^{-1}.
	Page 161, Table 5.1	Devonport, the total dose of breakdown of "External radiation from intertidal areas or river banks" in the table should read <0.005, the table should read.

Site	Representative person[a,b]	Exposure, mSv per year					
		Total	Fish and shellfish	Other local food	External radiation from intertidal areas, river banks or fishing gear	Intakes of sediment and water	Gaseous plume related pathways
Devonport							
***Total dose* – all sources**	**Adult fish consumers**	**<0.005**	**<0.005**	**–**	**<0.005**	**–**	**–**

	Page, Section	Comment
Previous RIFE reports (RIFE 19–21 inclusive)	Table A2.1	Gaseous discharges from Chapelcross Replace the Tritium and all other radionuclides discharge limits with 7.50E+14 and 2.50E+09, respectively. The authorisation was revised 1 May 2013.
RIFE-20 2014	201, Table 8.1	Iodine-129 data were entered incorrectly and should be removed with the exception of Alderney *Fucus vesiculosus* which was undertaken by radiochemistry. All other results reported as ^{129}I were actually ^{131}I.
RIFE-17-20 2014	86, Table 2.11	The units of Mean beta dose rate in tissue should read $uSvh^{-1}$
RIFE-19 2013	183, Table 6.1	Cardiff, these are small changes to the *total dose* and source-specific assessments shown below. They apply to relevant parts of text, tables (1.2B, 1.4 and 6.1) and figure (1.3)

Site	Exposed population[a]	Exposure, mSv per year					
		Total	Fish and shellfish	Other local food	External radiation from intertidal areas or the shoreline	Gaseous plume related pathways	Direct radiation from site
***Total dose* – liquid discharges**	**Adult occupants over sediment**	**0.006**	**<0.005**	**–**	**0.005**	**–**	**–**
Source specific doses	Prenatal children of seafood consumers	0.009	<0.005	–	0.009	–	–

	41, Figure 2.13	The cobalt-60 liquid discharge datum for 2013 (Figure 2.13, RIFE-19) was plotted incorrectly, it is shown corrected in Figure 2.13 in RIFE-20
	247, Appendix A2.1	Chapelcross, replace All other nuclides limit of 7.50E+09 Bq with 5.15E+09 Bq
	109, Figure 3.5	The discharge data for ^{60}Co and ^{137}Cs for 2013 (figure 3.5) were plotted incorrectly, they are shown corrected in Figure 3.5 in RIFE-20
	232, Table 8.15	Eu-155 results have been revised

Location	Sample source	reported ^{155}Eu	revised ^{155}Eu
Firth of Clyde	East of Gull Point	<0.21	0.72
Firth of Clyde	SW of Lady Isle	<0.36	2.1
Firth of Clyde	East of Johnston's Point	<0.22	0.81
Firth of Clyde	East of Brodick	<0.39	1.8
Clyde Estuary	The Hole	<0.50	2.1
Clyde Estuary	Kempoch Point	<0.43	2.7

Page, Section	Comment
33, Table 1.2	Some data was missing from Table 1.2 C (electronic version only), revised table shown below.

Table 1.2. continued

Site	Representative person[a]	Exposure, mSv	
		Total	Dominant contributions[b]
C All sources			
Aldermaston and Burghfield	Infant milk consumer	<0.005	Milk, $^{3}H^{c}$, $^{137}Cs^{c}$, ^{238}U
Amersham	Local adult inhabitant (0–0.25km)	0.22	Direct radiation
Barrow	Adult occupant on a houseboat	0.076	Gamma dose rate over sediment
Berkeley and Oldbury	Adult occupant over sediment	0.010	Gamma dose rate over sediment
Bradwell	Prenatal child of green vegetable consumers	<0.005	Green vegetables, potatoes, root vegetables, ^{14}C
Capenhurst	Local inhabitant aged 10y (0–0.25km)	0.080	Direct radiation
Cardiff	Infant milk consumer	0.010	Milk, ^{14}C, $^{32}P^{c}$
Chapelcross	Infant milk consumer	0.024	Milk, ^{90}Sr, $^{241}Am^{c}$
Derby	Adult consumer of locally sourced water	<0.005	Water, $^{60}Co^{c}$
Devonport	Adult fish consumer	<0.005	Fish, ^{14}C, $^{241}Am^{c}$
Dounreay	Adult green vegetable consumer	0.012	Domestic fruit, potatoes, root vegetables, $^{129}I^{c}$, $^{238}Pu^{c}$, $^{239/240}Pu^{c}$, $^{241}Am^{c}$
Dungeness	Local adult inhabitant (0.5–1km)	0.021	Direct radiation
Faslane	Adult occupant over sediment	<0.005	Gamma dose rate over sediment
Hartlepool	Local adult inhabitant (0–0.25km)	0.024	Direct radiation, gamma dose rate over sediment
Harwell	Prenatal child of local inhabitants (0–0.25km)	0.010	Direct radiation
Heysham	Adult mollusc consumer	0.028	Fish, gamma dose rate over sediment, molluscs, ^{137}Cs, $^{239/240}Pu$, ^{241}Am
Hinkley Point	Adult occupant over sediment	0.022	Gamma dose rate over sediment
Hunterston	Prenatal child of local inhabitants (0.25–0.5km)	0.021	Direct radiation
LLWR near Drigg[e]	Adult fish consumer	0.061[f]	Crustaceans, fish, gamma dose rate over sediment, $^{129}I^{c}$, ^{210}Po
Rosyth	Adult occupant over sediment	<0.005	Gamma dose rate over sediment
Sellafield[e,g]	Adult occupant on a houseboat	0.076	Gamma dose rate over sediment
Sizewell	Local adult inhabitant (0–0.25km)	0.021	Direct radiation
Springfields	Adult occupant on a houseboat	0.060	Gamma dose rate over sediment
Torness	Local adult inhabitant (0.5–1km)	0.020	Direct radiation
Trawsfynydd	Infant local inhabitant (0.25–0.5km)	0.017	Milk, ^{14}C, ^{241}Am
Whitehaven[e]	Adult fish consumer	0.061[f]	Crustaceans, fish, gamma dose rate over sediment, $^{129}I^{c}$, ^{210}Po
Winfrith	Infant milk consumer	<0.005	Milk, ^{14}C
Wylfa	Adult occupant over sediment	<0.005	Gamma dose rate over sediment

[a] *Selected on the basis of providing the highest dose from the pathways associated with the sources as defined in A, B or C*
[b] *Pathways and radionuclides that contribute more than 10% of the* total dose. *Some radionuclides are reported as being at the limits of detection and based on these measurements, an upper estimate of dose is calculated*
[c] *The assessed contribution is based on data being wholly at limits of detection*
[d] *The effects of gaseous discharges and direct radiation are not assessed for this site*
[e] *The effects of liquid discharges from Sellafield, Whitehaven and LLWR near Drigg are considered together when assessing exposures at these sites because their effects are manifested in a common area of the Cumbrian coast*
[f] *The doses from man-made and naturally occurring radionuclides were 0.040 and 0.021 mSv respectively. The source of naturally occurring radionuclides was a phosphate processing works near Sellafield at Whitehaven. Minor discharges of radionuclides were also made from the LLWR near Drigg into the same area*
[g] *The highest exposure due to operations at Sellafield was to a person living on a houseboat near Barrow*

RIFE-18 2012	134, Table 4.1	Hinkley Point. These are small changes to the total dose and source specific dose shown below. The apply to relevant points of text, tables (S, 1.2, 1.3, 1.4 and 4.1) and figures (1.1, 4.1 and 6.2).

Site	Exposed population[a]	Exposure, mSv per year					
		Total	Fish and shellfish	Other local food	External radiation from intertidal areas or the shoreline	Gaseous plume related pathways	Direct radiation from site
***Total dose* – all sources**	**Adult occupants over sediment**	**0.013**	**<0.005**	**<0.005**	**0.012**	**<0.005**	**<0.005**
Source specific doses	Seafood consumers	0.018	<0.005	–	0.017	–	–

	240, Appendix 2	Third entry on the table – Sellafield – the discharges during 2012 (Bq and % of annual limitb) columns and should have read:

Beta	1.03E+09	2.5
Antimony-125	3.20E+09	11
Caesium-137	1.59E+08	2.7

	Page, Section	Comment
	41, Figure 2.3	The River Ribble houseboat dose rate datum for 2012 (figure 2.3, RIFE-18) was plotted incorrectly, it is shown corrected in Figure 2.4 in RIFE-19
	134, Table 2.18	Sellafield. These are small changes to the total dose shown below. They apply to relevant points of text, tables (1.2 and 2.18) and figure 2.6.

Exposed population[a]	Exposure, mSv per year							
	Total	Seafood (nuclear industry discharges)	Seafood (other discharges)	Other local food	External radiation from intertidal areas, river banks or fishing gear	Intakes of sediment and water	Gaseous plume related pathways	Direct radiation from site
***Total dose* – maximum effect of gaseous release and direct radiation sources**								
Infant root vegetable consumers	**0.011**	**–**	**–**	**0.011**	**–**	**–**	**–**	**–**

	196, Table 7.7	Discharge data reported previous to RIFE-18 classified as Oil & Gas (Offshore) should have been classified as Oil & Gas (Onshore). This has been corrected for RIFE-18 onwards.
RIFE-17 2011	52, Section 2	On Figure 2.14 the year labels from 2004 to 2011 were underneath the bar chart incorrectly and should have been one place to the right, as shown in RIFE 18.
	61, Section 2	Springfields 'Source specific doses' last entry on the table should read: 'Consumers of locally grown food' not 'Infant consumers of locally grown food'
	209, Section 9	Line 7, paragraph 7, should read: Tritium concentrations in the western English Channel were also very low (Figure 9.7).
	240, Appendix 2	Third entry on the table – Capenhurst (Urenco UK) the discharge limits (annual equivalent)[a] Bq column should have read: Uranium 7.50E+06 Other Alpha 2.40E+06 Technetium-99 1.00E+08 Others 2.25E+09

	Page, Section	Comment
RIFE-14-17 2011	CD, Appendix 1	Table X2.2 Sellafield Q – Ravenglass nature warden assessment, the ingestion and inhalation rates of sediment have been incorrect, they should have read: RIFE-14 3.1 10-3 kg y^{-1} mud by inadvertant ingestion 5.6 10-5 kg y^{-1} mud by resuspension and inhalation RIFE-15 3.4 10-3 kg y^{-1} mud by inadvertant ingestion 6.3 10-5 kg y^{-1} mud by resuspension and inhalation RIFE-16 3.4 10-3 kg y^{-1} mud by inadvertant ingestion 6.3 10-5 kg y^{-1} mud by resuspension and inhalation RIFE-17 3.4 10-3 kg y^{-1} mud by inadvertant ingestion 6.3 10-5 kg y^{-1} mud by resuspension and inhalation
RIFE-16 2010	30, Table 1.2B	Trawsfynydd, should read… Adult fish consumers 0.012 Fish, gamma dose rate over sediment, ^{90}Sr, ^{137}Cs, ^{241}Am
	37, Section 2	Line 13, paragraph 3, second column should read… The dose to wildfowlers and farmers from exposure over salt marsh was 0.032 mSv, which was less than 4 per cent of the dose limit for members of the public of 1 mSv. The small decrease in dose from 0.036 mSv (in 2009) was due to lower gamma dose rates over marsh in 2010.
	100, Section 3	The graph in Figure 3.2 is missing 2010 data. The data for 2010 is shown in Figure 3.2 RIFE 17
	122, Section 4	Line 7, paragraph 1, first column should read… An increase in the fish and crustacean consumption rates has been observed, together with a decrease in the mollusc and occupancy rates, in comparison with those of the previous survey reported in 2006.
	Appendix 1, Annex 2	Table X2.2 Sellafield Group N winkle consumption should have said 15kg y^{-1} (not 18 kg y^{-1})
RIFE-15 2009	233, Table A2.1	MoD Coulport under reported discharges for the end of 2009. The ^{3}H discharge for 2009 should have been 3.40 E-03 TBq.
	249, Table A4.2B	Trawsfynydd, should read… Adult fish consumers 0.012 Fish, gamma dose rate over sediment, ^{90}Sr, ^{137}Cs, ^{241}Am
RIFE-14 2008	12, Figure S1	Both bars for Bradwell should be the same height. The bar for exposures due to liquid wastes is wrong.

	Page, Section	Comment
RIFE-14 2008	33, Section 2	Springfields, doses to the public Lines 1 & 2 second column should read… …pathways from gaseous discharges were less than 0.005mSv which was less than 0.5 per cent…
	51, Figure 2.22	The bar for Whitehaven in 2008 should have been the same height as the bar for 2007
	109, Section 4	Gaseous discharges and terrestrial monitoring Line 28, first column should read… The results of monitoring for 2008…
	167, Table 6.3a	Results for Cardiff East WWTW should have been:

Material	Location or selection[b]	No. of sampling observ-ations[c]	Mean radioactivity concentration (fresh)[a], Bq kg^{-1}			
			Organic			
			$^{3}H^{e}$	^{3}H	$^{3}H^{f}$	$^{14}C^{c}$
Terrestrial samples						
Crude effluent	Cardiff East WWTW	3E	<150	<220	82	<11
Final effluent	Cardiff East WWTW	3E	<60	<70	80	<11
Sludge pellets	Cardiff East WWTW	3E		76000		740
Solids from crude effluent	Cardiff East WWTW	3E		<7500		<1800

	225, Table A2.2	Sellafield (sea pipelines) Tritium discharge limit should have read 2 10^{4}		
	236, Table A4.2B	Trawsfynydd, should read…		
		Adult fish consumers	0.010	Fish, gamma dose rate over sediment, ^{90}Sr, ^{137}Cs, ^{241}Am
RIFE-13 2007	127, Table 4.5a	The ^{210}Po and ^{210}Pb results are the wrong way round for South Gare winkles. ^{210}Po should be 11 and ^{210}Pb should be 0.46 Bq kg^{-1}		
	153, Table 5.1	Derby, the total exposure and exposure from intakes of sediment and water should have been <0.005 mSv.		
	161, Section 6 Key points	Line 17 second column should read… • The total dose of 0.008…		
	236, Table A4.2B	Trawsfynydd, should read…		
		Adult fish consumers	0.014	Fish, gamma dose rate over sediment, ^{90}Sr, ^{137}Cs, ^{241}Am
	239, Appendix 5	Line 3 first column should read… … indicated that it was likely there would be no adverse impact		
RIFE-12 2006	70, Table 2.7	The concentration of ^{241}Am in winkles at Drigg should have been 29.		

	Page, Section	Comment
	103, Section 4 Key points	Line 22 second column replace with • At Dungeness, dose from gaseous discharges increased.
	187, Figure 8.5	The range in the key should have been 2 to 8.
	234, Table A4.2B	Trawsfynydd, should read… Prenatal children of fish consumers 0.013 Fish, gamma dose rate over sediment, ^{90}Sr
Previous RIFE reports (RIFE 2–12 inclusive)		Gaseous Discharges of Alpha and Beta at Sellafield The published gaseous discharges of alpha and beta at Sellafield in the years, 1996, 1998-2001 and 2005-6 were reported incorrectly. The revised data is given below, the % of annual limit for Alpha in 1997 should read 12% (not 1.2%).

Year	Alpha (Bq)	% of annual Limit	Beta (Bq)	% of annual Limit
1996	1.80E+08	11	3.40E+09	7.1
1998	8.20E+07	4.8	1.60E+09	3.3
1999	1.70E+08	10	2.20E+09	4.6
2000	9.00E+07	5.3	1.10E+09	2.3
2001	7.20E+07	3.7	9.70E+08	<1
2005	8.90E+07	10	1.70E+09	4.0
2006	1.10E+08	13	2.00E+09	4.8

RIFE-11 2005	270, Table A7.2B	Trawsfynydd, should read… Prenatal children of occupants over sediment 0.008 Direct radiation, gamma dose rate over sand/stone

	Page, Section	Comment
Previous RIFE reports		Gaseous discharges of krypton-85 from Dounreay Fast Reactor

In May 2016, DSRL notified SEPA of the identification of the release of unmonitored krypton-85 gaseous discharges through the authorised discharge outlet at the DFR facility (see table A2.5 RIFE-22 for more detail). The krypton-85 discharge data have been revised and are presented below.

Year	Revised Discharge (Bq)	Revised % of annual limit
1995	1.46E+08	37
1996	1.47E+08	37
1997	1.25E+08	31
1998	1.25E+08	31
1999	1.25E+08	31
2000	1.26E+08	31
2001	1.25E+08	31
2002	5.31E+08	130
2003	3.57E+08	89
2004	8.35E+07	21
2005	2.37E+07	5.9
2006	2.37E+07	5.9
2007	2.55E+07	6.4
2008	3.04E+07	7.6
2009	3.61E+07	9.0
2010	5.89E+07	15
2011	9.29E+07	23
2012	9.68E+07	24
2013	1.07E+09	270
Discharge authorisation revised 2014		
2014	2.58E+08	<1
2015	7.92E+08	<1

RIFE-11 2005	72, Table 3.3a	Footnote ‘d’ showed an incorrect value. It should have read: [d] *The concentration of ^{237}Np was 0.00035 Bq kg^{-1}*
	112, Table 4.3a	Column headings should have read: $^{239}Pu+^{240}Pu$ ^{241}Pu
	140, Table 5.5a	The result of <0.13 for ^{241}Am in the *Fucus vesiculosis* samples from Pilot Station was incorrectly put into the $^{239}Pu+^{240}Pu$ column.
	206, Figures 9.5 and 9.6	Incorrect units were shown. The correct units were mBq l^{-1}.

	Page, Section	Comment
	225, Table 9.15	Incorrct headings in the top part of the table. Should have been as below:

Table 9.15. Concentrations of radionuclides in sources of drinking water in England and Wales, 2005

Location	Sample source	No. of sampling observ-ations	Mean radioactivity concentration, Bq l^{-1}				
			^{3}H	^{40}K	^{90}Sr	^{137}Cs	^{210}Po
Wales							
Gwynedd	Cwm Ystradllyn Treatment Works	4	<4.0	<0.020	0.0036	0.0018	<0.010
Mid-Glamorgan	Llwyn-on Reservoir	4	<4.0	<0.045	0.0030	<0.0010	<0.013
Powys	Elan Valley Reservoir	4	<4.0	<0.050	0.0040	0.00090	<0.010

	248, Table A1.2	Sellafield discharge limits for alpha and beta should have been 8.90 10^{-5} and 0.00174 TBq respectively.
	251, Table A1.2	Aldermaston Tritium discharge and % limit should have been 14.1 and 8.3 respectively.
RIFE 8-11 2002-2005	Concentrations in sediments	For sediment samples with unusually high water contents it was discovered in 2007 that the resulting sample bulk densities were outside the instrument calibration range. Following investigations a correction factor has been calculated and this has been applied to the affected data from 2002-2005 and the new results are reported here in Table E2. These amendments do not significantly affect any assessments, charts or statements in the relevant RIFE reports.

Table E2. Amended concentrations of radionuclides in sediment, 2002 2005

Year	Site	Location	No. of sampling observ-ations	Mean radioactivity concentration (dry), Bq kg^{-1}						
				^{57}Co	^{60}Co	^{65}Zn	^{95}Zr	^{95}Nb	^{106}Ru	^{125}Sb
2002	Aldermaston	Reading (Kennet)	4							
		Stream draining south	4							
	Bradwell	Maldon	2		<3.4					
		Waterside	2		<4.0					
	Capenhurst	Rossmore (4.3 km downstream)	2							
	Cardiff	Canal	2							
		West of pipeline	2							
	Devonport	Lopwell	2		<3.7					
	Dungeness	Pilot Sands	2		<0.90					
	Harwell	Appleford	4		<0.60					
		Day's Lock	4		<0.50					
	Sellafield	Caerhun	2		<3.3		<9.6	<7.7	<23	<9.2
2003	Aldermaston	Reading (Kennet)	4							
		Aldermaston	4							
	Amersham	Outfall (Grand Union Canal)	3	<0.30	<1.1	<1.5				
	Bradwell	Waterside	2		<2.0					
	Cardiff	Canal	1							
	Derby	River Derwent (downstream)	4		<1.0					
	Devonport	Lopwell	2		<2.5					
2004	Aldermaston	Reading (Kennet)	4							
		Aldermaston	4							
		Stream draining south	4							
	Amersham	Upstream of outfall (Grand Union Canal)	2	<6.4	<1.8	<4.1				
	Cardiff	Canal	2							
	Sellafield	Caerhun	2		<1.6		<4.5	<2.2	<12	<13
2005	Aldermaston	Reading (Kennet)	4							
	Amersham	Upstream of outfall (Grand Union Canal)	2	<5.3	<1.6	<3.6				
	Cardiff	Canal	2							
	Harwell	Lydebank Brook	4		<1.7					
		Appleford	4		<2.5					
	Sellafield	Caerhun	2		<2.6		<8.8	<6.8	<20	<20
	Trawsfynydd	Bailey Bridge	2		<8.3					<44

Year	Site	Location	No. of sampling observ-ations	Mean radioactivity concentration (dry), Bq kg^{-1}							
				^{125}I	^{131}I	^{134}Cs	^{137}Cs	^{144}Ce	^{154}Eu	^{155}Eu	^{241}Am
2002	Aldermaston	Reading (Kennet)	4				7.3				<1.9
		Stream draining south	4				<5.1				<1.2
	Bradwell	Maldon	2			6.5	80				<4.0
		Waterside	2			3.9	59				<13
	Capenhurst	Rossmore (4.3 km downstream)	2				<4.4				
	Cardiff	Canal	2	<0.80			2.4				
		West of pipeline	2	<3.1			33				
	Devonport	Lopwell	2				7.7				
	Dungeness	Pilot Sands	2				<0.90				<1.6
	Harwell	Appleford	4				<13				
		Day's Lock	4				6.0				
	Sellafield	Caerhun	2			<3.4	430	<25	<7.3	<8.0	75
2003	Aldermaston	Reading (Kennet)	4				8.0				<1.6
		Aldermaston	4				6.3				<2.7
	Amersham	Outfall (Grand Union Canal)	3	<1.0	<550		<2.1				
	Bradwell	Waterside	2				35				<2.7
	Cardiff	Canal	1	<1.4			16				
	Derby	River Derwent (downstream)	4								
	Devonport	Lopwell	2				<10				
2004	Aldermaston	Reading (Kennet)	4				5.4				<1.1
		Aldermaston	4				<3.9				<1.3
		Stream draining south	4				<2.8				1.6
	Amersham	Upstream of outfall (Grand Union Canal)	2	<0.80	<1.4		10				
	Cardiff	Canal	2	<1.5			11				
	Sellafield	Caerhun	2			<1.5	220	<5.7	<7.3	<3.1	51
2005	Aldermaston	Reading (Kennet)	4				<3.9				6.5
	Amersham	Upstream of outfall (Grand Union Canal)	2	<1.0	<9.1		6.2				
	Cardiff	Canal	2	<1.8			9.1				
	Harwell	Lydebank Brook	4				9.0				
		Appleford	4				<11				
	Sellafield	Caerhun	2			<2.5	230	<9.3	<12	<5.3	59
	Trawsfynydd	Bailey Bridge	2			<4.2	920				76

	Page, Section	Comment
RIFE-10 2004	75, Table 3.7	The entry for Haverigg should read 0.087.
	45, Figure 3.8	The americium-241 discharge data for 2004 was plotted incorrectly, it is shown corrected in Figure 3.12 in RIFE-11.
	87, Table 3.15 151 Table 6.1(a) 154, Table 6.3(a) 166 Table 7.3(a) 173, Table 8.1(a)	The following activity in soil data were reported as being Bq kg^{-1} (dry) whilst they should have been reported as Bq kg^{-1} (wet). All data are averages unless stated.

Site/location	^{60}Co	^{106}Ru	^{125}Sb	^{134}Cs	^{137}Cs	^{234}U	^{235}U	^{238}U
Sellafield (Table 3.15)	<0.43	<1.4	<0.73					
max	0.80	<1.5	<0.80			16	0.64	15
Aldermaston (Table 6.1(a))								
max						7.8	0.29	7.2
Derby (Table 6.3(a))								
max						27	0.94	23
Cardiff (Table 7.3(a))				<0.47	7.1			
max				<0.50	7.7			
Drigg (Table 8.1)								
max						11	0.42	11

223, Table A1.1	The % annual limit for ^{106}Ru discharge at Sellafield was 7% (not 70%).
246, Table A5.1	Some dose per unit intake values were missing for 1 yr old. These were:

Table A5.1. Dosimetric data

Radionuclide	Dose per unit intake by inhalation using ICRP-60 methodology (Sv Bq^{-1})
Sr-90†	1.2E-07
Zr-95†	2.1E-08
Ba-140†	2.6E-08
Pb-210†	4.0E-06
Th-228†	1.4E-04
U-238	9.4E-06

† Energy and dose per unit intake data include the effects of radiations of short-lived daughter products

	Page, Section	Comment
RIFE-9 2003	82, Table 3.15 138 Table 6.1(a) 141, Table 6.3(a) 151, Table 7.3(a) 157, Table 8.1(a)	The following activity in soil data were reported as being Bq kg^{-1} (dry) whilst they should have been reported as Bq kg^{-1} (wet). All data are averages unless stated.

Site/location		^{60}Co	^{106}Ru	^{125}Sb	^{134}Cs	^{137}Cs	^{154}Eu	^{234}U	^{235}U	^{238}U	^{241}Am
Sellafield (Table 3.15)		<0.90	<3.3	<1.2	<0.40	75	<0.50				5.9
	max	1.6	<4.2	<1.6		89	<0.60	11	0.54	10	7.7
Aldermaston (Table 6.1(a))											
	max							11	0.48	11	
Derby (Table 6.3(a))											
	max							47	1.6	40	
Cardiff (Table 7.3(a))					<0.40	8.8					
	max					11					
Drigg (Table 8.1)											
	max							6.7	0.26	6.7	

	185, Table 9.12	Some data were incorrect. The amended version of the table is attached.

Table 9.12. Concentrations of radionuclides in rainwater and air 2003

Location	Sample	No. of sampling observ-ations	Mean radioactivity concentration[a] in rainwater and air								
			^{3}H[7]	Be	^{90}Sr[b]	^{137}Cs	^{210}Pb	^{210}Po	^{228}Th	Gross alpha[b]	Gross beta[b]
Ceredigion											
Aberporth	Rainwater	12	<2.4	<1.6		<0.053	0.10		*		
	Air	4		0.0022		<0.00000052	0.00017		*		
Co. Down											
Conlig	Rainwater	4		<1.5		<0.022	*		*		
	Air	4		0.0022		<0.00000063	0.00015		*		
Dumfries and Galloway											
Eskdalemuir	Rainwater	4		<2.7	1.2		<0.0098	0.094		*	
	Air	4		0.0018		<0.00000043	0.00013		*		
North Yorkshire											
Dishforth	Rainwater	4		<2.2		<0.039	*		*		
	Air	4		0.0016		<0.00000055	0.00014		*		
Oxfordshire											
Chilton	Rainwater	12		<1.5	<0.00064	<0.032	0.32		*	0.074	0.17
	Air	13		0.0018		<0.00000034	0.00027	<0.000014	*		
Shetland											
Lerwick	Rainwater	4		1.6		<0.017	*		*		
	Air	4		0.0015		<0.00000052	0.00010		*		
Suffolk											
Orfordness	Rainwater	4	<2.2	<2.4		<0.048	*		5.2		
	Air	4		0.0022		<0.00000053	0.00020		*		

* Not detected by the method used

[a] Bq l^{-1} for rainwater and Bq kg^{-1} for air

[b] Annual bulk analysis

	187, Table 9.14	The concentration of ^{210}Po in Cornwall, River Fowey was <0.0098 Bq l^{-1}.

	Page, Section	Comment
	188, Table 9.16	A revised version is attached.

Table 9.16. Estimates of maximum radiation exposure from radionuclides in drinking water, 2003[a]

Country	Exposure, mSv Man-made radionuclides[b]	Natural radionculides[c]	All radionuclides
England	<0.001	0.028	0.028
Northern Ireland	<0.001	0.026	0.026
Scotland	<0.001	[d]	[d]
Wales	<0.001	0.027	0.027

[a] *The maximum dose is selected for each nuclide group from data for individual sampling locations. Many estimates of dose are based on concentration results at limits of detection.*

[b] *Including tritium*

[c] *Including carbon-14*

[d] *Analysis of natural radionuclides was not undertaken*

	214, Table A1.2	The data shown for Faslane are a duplication of the data for Rosyth and were included in error.
RIFE-8 2002	59, Table 4.1	Two tritium results were omitted. The data are attached.

Table 4.1. Beta/gamma radioactivity in fish from the Irish Sea vicinity and further afield, 2002

Location	Material	No.of sampling observ-ations	^{3}H
Liverpool Bay	Flounder	2	<25
Mersey estuary	Flounder	2	<25

	79, Table 4.14 82 Table 4.17 128, Table 7.1(a) 138, Table 8.2(a)	The following activity in soil data were reported as being Bq kg^{-1} (dry) whilst they should have been reported as Bq kg^{-1} (wet). All data are averages unless stated.

Site/location		^{60}Co	^{106}Ru	^{125}Sb	^{134}Cs	^{137}Cs	^{234}U	^{235}U	^{238}U
Sellafield (Table 4.14)		<0.80	<2.3	<1.2	68				
	max	1.0	<2.7	<1.4	82				
Drigg (Table 4.17)									
	max						6.9	0.30	6.5
Aldermaston (Table 7.1(a))									
	max						8.7	0.35	8.3
Cardiff (Table 8.2(a))					<0.30	6.4			
	max					8.1			

	102, Figure 6.1	The concentration of caesium-137 in Bradwell sediments was plotted incorrectly in Figure 6.1, it is shown corrected in Figure 5.1 of RIFE-9.

	Page, Section	Comment
RIFE-1-8 1995-2002		Urenco Capenhurst have reassessed atmospheric discharges of uranium; the reassessed discharges are listed in Table E1.

Table E1. Reassessed atmospheric discharges of uranium from Urenco Capenhurst

Year	Original reported discharge TBq	Reassessed discharge TBq
1993	$1.74\ 10^{-9}$	$2.41\ 10^{-7}$
1994	$6.74\ 10^{-9}$	$2.63\ 10^{-7}$
1995	$2.69\ 10^{-8}$	$2.75\ 10^{-7}$
1996	$1.11\ 10^{-7}$	$8.23\ 10^{-7}$
1997	$6.80\ 10^{-8}$	$4.90\ 10^{-7}$
1998	$6.87\ 10^{-8}$	$1.87\ 10^{-6}$
1999	$8.15\ 10^{-8}$	$1.01\ 10^{-6}$
2000	$9.64\ 10^{-8}$	$8.72\ 10^{-7}$
2001	$1.20\ 10^{-7}$	$9.77\ 10^{-7}$
2002	$1.16\ 10^{-7}$	$6.01\ 10^{-7}$

RIFE-7 2001	71, Table 4.8 80, Table 4.15(a) 93, Table 5.2(a) 122, Table 7.3 127, Table 8.2(a) 130, Table 9.1	The following activity in soil data were reported as being Bq kg^{-1} (dry) whilst they should have been reported as Bq kg^{-1} (wet). All data are averages unless stated.

Site/location		^{60}Co	^{106}Ru	^{125}Sb	^{134}Cs	^{137}Cs	^{234}U	^{235}U	^{238}U	^{241}Am
Sellafield (Table 4.8)		<0.80	<3.1	<1.1		80				5.8
	max	1.2				97	9.3	0.34	9.1	6.0
Springfields (Table 4.15(a))										
	max						95	4.6	89	
Harwell (Table 5.2(a))		<0.40			<0.40	2.9				
Featherstone position A (Table 7.3)							9.5	0.41	9.0	
Featherstone position B (Table 7.3)							7.3	0.34	7.5	
Cardiff (Table 8.2(a))					<0.33	5.6				
	max				<0.40	6.5				
Derby (Table 9.1)							18	0.80	18	
	max						30	1.3	29	

	176, Table A1.1	Discharges of Alpha for Hunterston 'A' given as 0.14 TBq should have been 1.4 10^{-5} TBq. The % of limit given as 350 should have been <1.
	181, Table A1.2	Dungeness 'A' discharge limit and % of limit for tritium should have been 3 and 23 respectively.
RIFE-6 2000	31, Section 3.5	It was stated that the dose limits do not apply to natural radionuclides. This sentence should be deleted

	Page, Section	Comment
	75, Table 4.16 124, Table 9.1	The following activity in soil data were reported as being Bq kg^{-1} (dry) whilst they should have been reported as Bq kg^{-1} (wet). All data are averages unless stated.

Site/location	^{234}U	^{235}U	^{238}U
Capenhurst (Table 4.16) max	8.5	0.35	8.4
Derby (Table 9.1) max	24	0.96	23

	155, Table 12.1	Target date for project 'Tritium and carbon-14 in seafood' should have been March 2003.
	166, Table A1.1	Discharges of tritium from Devonport (pipeline) given as 0.87 TBq should have been 0.087 TBq.
	168, Table A1.2	Sellafield Discharge limits of alpha and beta activity should have been 0.00196 and 0.328 TBq. Percentage of limit for alpha and beta activity should have been 4.0 and <1. Discharges of tritium and 14C from Sellafield given as 213 and 2.58 TBq should have been 355 and 2.94 TBq. Relevant percentages given as 15 and 30 should have been 25 and 34.
RIFE-5 1999	71, Table 4.15(a) 73, Table 4.16 118, Table 9.1	The following activity in soil data were reported as being Bq kg^{-1} (dry) whilst they should have been reported as Bq kg^{-1} (wet). All data are averages unless stated.

Site/location	^{234}U	^{235}U	^{238}U
Springfields (Table 4.15(a)) max	180	15	200
Capenhurst (Table 4.16) max	12	0.46	12
Derby (Table 9.1) max	34	1.3	31

	112, Section 8.2	The second sentence of paragraph three states that "the duck and tide washed pasture pathways gave doses of 0.032 and 0.009 mSv y^{-1} respectively." The dose due to the duck pathway should read 0.042 mSv y^{-1} . The value for tide washed pasture is correct.
	123, Table 10.2	The concentration of ^{14}C in grass from Billingham was 960 Bq kg^{-1} (wet).
	162, Table A1.2	The Dounreay (Fast Reactor) data were duplicated.
RIFE-4 1998	70, Table 4.12	The concentrations of total Cs and ^{144}Ce in ovine muscle (max) were 0.61 and <1.8 Bq kg^{-1} (wet) respectively. No value for ^{155}Eu is available.

	Page, Section	Comment
	75, Table 4.15(a) 77, Table 4.16 116, Table 9.1	The following activity in soil data were reported as being Bq kg^{-1} (dry) whilst they should have been reported as Bq kg^{-1} (wet). All data are averages unless stated.

Site/location	^{234}U	^{235}U	^{238}U
Springfields (Table 4.15(a))	72	3.0	68
Capenhurst (Table 4.16)	7.9	0.30	7.4
Derby (Table 9.1)	31	0.93	26

	96, Table 6.4(a)	The concentration of ^{241}Am in mud at Paddy's Hole was <1.0 Bq kg^{-1} (dry). No measurement of $^{239/240}Pu$ was made.
	125, Section 11.1	Last but one paragraph. The estimated dose was 0.094 mSv.
	131, Section 11.8	Last paragraph, first sentence. Replace 1997 with 1998.
RIFE-3 1997	19, Table 1.1	Replace beta, tritium and 60Co Devonport (sewer) discharges with 1.97 10^{-6}, 2.22 10^{-6}, 5.60 10^{-7} TBq respectively. Replace alpha and beta limit and percentage Greenwich with 4.44 10^{-3} TBq and <1 respectively.
	21, Table 1.2	Replace tritium Winfrith limit with 5 TBq.
	38, Section 3.6.5	First paragraph. Reference to factor of 0.85 millisievert per milligray should be ICRP (1996b).
	70, Table 4.10 72, Table 4.12 81, Table 4.16 121, Table 9.1	The following activity in soil data were reported as being Bq kg^{-1} (dry) whilst they should have been reported as Bq kg^{-1} (wet). All data are averages unless stated.

Site/location	^{234}U	^{235}U	^{238}U
Drigg (Table 4.10)	9.9	0.37	9.5
Ravenglass (Table 4.12)	18	0.60	16
Springfields (Table 4.12)	31	1.5	30
Capenhurst (Table 4.16)	9.5	0.40	9.5
Derby (Table 9.1)	27	0.97	24

	90, Section 6.3	The maximum dose due to gaseous disposals was received by adults.
	161, Appendix 4	The 1 year old child dose coefficient for ^{99}Tc was 4.80 10^{-9}.
RIFE-2 1996	32, Section 8.1	Lines 8-11. Replace with "In 1996 no fragments of spent fuel were found on the public beach at Dounreay. Thirteen small fragments were found with caesium-137 activities in the range 10^{5}-10^{8} Bq (these activities were measured by the operator). They were all found on the Dounreay foreshore which although a public area is largely inaccessible. A"

	Page, Section	Comment
	58, Table 2	Replace ^{35}S Oldbury limit of 0.8 TBq with 0.75 TBq. Replace ^{41}Ar Trawsfynydd limit of 350 TBq with 3500 TBq.
	85, Table 16 87, Table 18 91, Table 20(a) 95, Table 21 119, Table 41	The following activity in soil data were reported as being Bq kg^{-1} (dry) whilst they should have been reported as Bq kg^{-1} (wet). All data are averages unless stated.

Site/location	^{234}U	^{235}U	^{238}U
Drigg (Table 16)	8.3	0.28	7.4
Ravenglass (Table 18)	16	0.56	15
Springfields (Table 20(a))	49	2.3	45
Capenhurst (Table 21)	9.8	0.36	10
Derby (Table 41)	44	1.7	43

	Table 47	This was omitted in error. The data are attached.

Table 47. Radioactivity in plants near landfill sites, 1996

Sampling location	Material	No of samples	Mean radioactivity concentration (dry)*, Bq kg^{-1}							
			^{3}H	^{14}C	^{90}Sr	^{125}I	^{134}Cs	^{137}Cs	^{238}Pu	$^{239+240}Pu$
Beddingham Lewes, East Sussex	Grass	4	<40 *±18*	130 *±28*	1.8 *±0.1*	<0.19	<0.61	<0.54 *±0.30*	<0.00099 *±0.00037*	0.0067 *±0.0012*
Cilgwyn Quarry, Gwynedd	"	4	<30	360 *±55*	3.0 *±0.2*	<0..63	<0.69	<5.2 *±0.9*	<0.0095	0.018 *±0.005*
Lyndown, Devon	"	4	<28	150 *±30*	2.4 *±0.2*	<1.3 *±0.2*	<0.60	<0.62 *±0.17*	<0.0010	<0.0024 *±0.0009*
Witton, Cheshire	"	4	<38	130 *±33*	0.76 *±0.12*	<1.1 *±0.3*	<0.59	<0.63	<0.0013	0.0021 *±0.0016*

* *Results are available for other artificial nuclides detectable by gamma spectrometry*
All such results are less than the limit of detection

RIFE-1 1995

	38, Section 16.2	Last but one sentence, replace 1994 with 1995.
	39, Section 16.4	First sentence, 2nd paragraph, replace 1994 with 1995.
	45, Table 1	Replace ^{241}Am Sellafield (sea pipelines) limit of 1.3 TBq with 0.3 TBq. Replace ^{60}Co Harwell (pipeline) percentage of 1.5 with 6.9.
	74, Table 16 99, Table 33(a)	The following activity in soil data were reported as being Bq kg^{-1} (dry) whilst they should have been reported as Bq kg^{-1} (wet). All data are averages unless stated.

Site/location	^{210}Po	^{238}Pu	$^{239+240}Pu$
Sellafield (Table 16)	64		
Aldermaston (Table 33(a))		0.0091	0.36
max		0.016	0.56

	99, Table 33(a)	The concentration of ^{137}Cs in clay at Outfall (Pangbourne) was 12±0.15 Bq kg^{-1} (dry)

	Page, Section	Comment
	133, Appendix 3	The average consumption rates of nuts and offal by 10 year old children were 1.5 kg y^{-1}. The consumption of whelks at Sellafield by group E (Whitehaven commercial) was 11 kg y^{-1}.
	138, Appendix 6	The values of t_f and t_s were 0. The transfer factors for beef offal (^{241}Pu) and lamb (^{241}Pu) were 2 10^{-2} and 4 10^{-4} respectively.