Department for
Business, Energy
& Industrial Strategy

2019 UK Radioactive Waste Detailed Data

December 2019

2019 UK RADIOACTIVE WASTE DETAILED DATA

Report prepared for the Department for Business, Energy & Industrial Strategy (BEIS)
and the Nuclear Decommissioning Authority (NDA)
by Pöyry Energy Ltd and Wood Nuclear Ltd

PREFACE

The 2019 United Kingdom Radioactive Waste & Materials Inventory (the 2019 Inventory) provides detailed information on radioactive wastes and materials in the United Kingdom (UK). It is produced by the Department for Business, Energy & Industrial Strategy (BEIS) and the Nuclear Decommissioning Authority (NDA).

The 2019 Inventory provides information on radioactive waste stocks (at 1 April 2019) and forecasts of future waste arisings. Information on radioactive materials that may be classed as waste in the future is also presented. The 2019 Inventory aims to provide data in an open and transparent manner for those interested in radioactive wastes and materials.

Information collected for the 2019 Inventory is presented in a suite of four reports:

- 2019 UK Radioactive Waste Inventory
- 2019 UK Radioactive Material Inventory
- 2019 UK Radioactive Waste Detailed Data
- 2019 Summary of UK Radioactive Waste and Material Inventory for International Reporting

All documents have been prepared using information supplied by the radioactive waste producers and custodians to the 2019 Inventory contractors, Wood and Pöyry Energy. This information was verified in accordance with arrangements established by Wood and Pöyry Energy in agreement with NDA.

This report presents more detailed information on radioactive wastes than that given in the 2019 *UK Radioactive Waste Inventory* report.

Conditions of Publication

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Feedback

We welcome feedback on the content, clarity and presentation of the 2019 Inventory reports. Please do not hesitate to contact us if you would like to provide feedback or if you would like further information about radioactive waste issues:

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1 INTRODUCTION

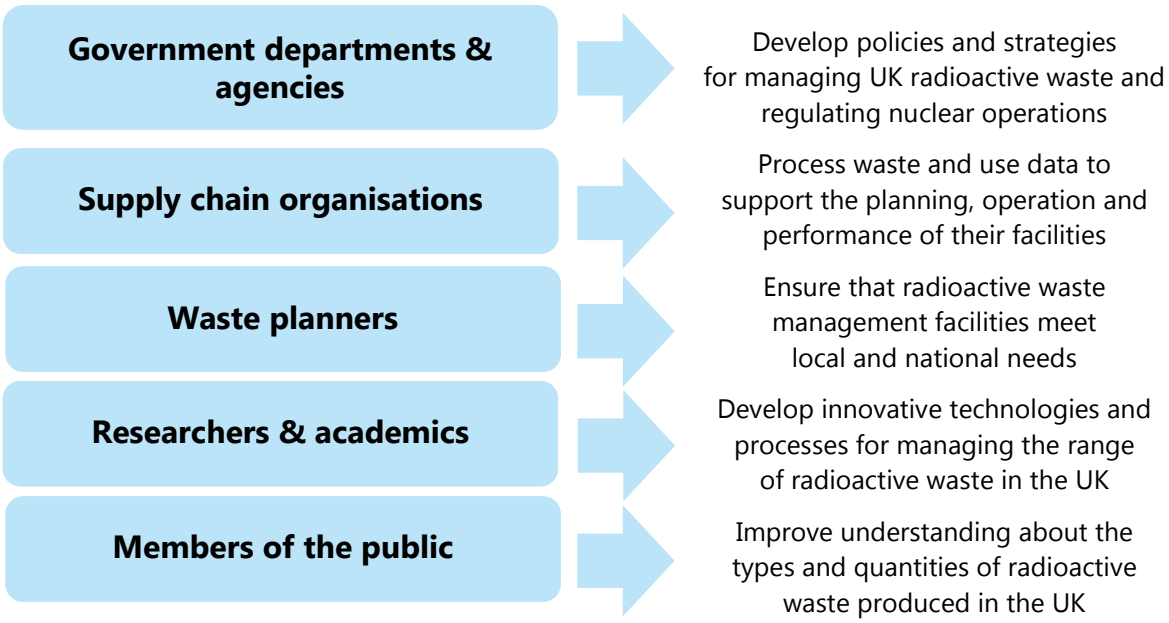
1.1 The Inventory

An inventory of radioactive waste and materials in the UK is compiled every three years by the Department for Business, Energy & Industrial Strategy (BEIS) and the Nuclear Decommissioning Authority (NDA).

The inventory provides up-to-date information about radioactive waste to:

- Enable the UK to meet international reporting obligations
- Inform policy and strategy development
- Aid radioactive waste and material management planning
- Support stakeholder engagement.

The inventory is used by a wide range of stakeholders:



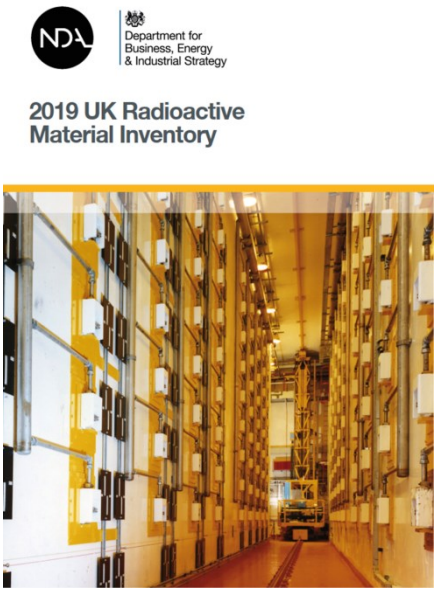
The 2019 UK Radioactive Waste & Materials Inventory (the 2019 Inventory) is the latest public record on the sources, quantities and properties of radioactive waste and materials in the UK at 1 April 2019 and predicted to arise after that date.

1.2 Inventory documents

The 2019 Inventory comprises four reports:

Radioactive Waste Inventory

Describes the sources, volume, composition and activity of radioactive waste in the UK, and a comparison with the previous inventory



Radioactive Material Inventory

Summarises the quantities of UK civil nuclear materials that might have to be managed as waste in the future

Waste Detailed Data

Provides further information on the radioactive waste inventory including a list of waste streams

Summary for International Reporting

Gives information to meet the UK's international reporting obligations in the field of radioactive waste and materials

As part of the commitment to openness, NDA has created a website dedicated to the Inventory, www.nda.gov.uk/ukinventory, where all of the 2019 Inventory reports can be found together with other information about radioactive waste.

1.3 This report

This report provides detailed information on the 2019 UK Radioactive Waste Inventory:

- Waste volumes for England, Scotland and Wales
- Waste volumes for each organisation
- Site information sheets for each waste producing site in the UK
- Waste volumes for each waste stream in the 2019 Inventory[1]
- The radionuclide composition of wastes
- The 2019 Inventory data reporting conventions.

1 Individual waste stream volumes cover a wide range (from less than 1 m^3 to more than 1,000,000 m^3). In this report summed waste stream volumes are rounded to three significant figures, as any impression of undue arithmetic accuracy can be misleading. Summed numbers of waste packages are also rounded to three significant figures, except for waste packages at 1 April 2019 where the actual numbers being held are reported. Summed waste stream material component masses and radioactivities are rounded to two significant figures.

Aerial view of Sizewell B power station site

2 WASTE VOLUMES FOR UK

This appendix presents waste volumes and package numbers for HLW, ILW LLW and VLLW, and in total, for the UK as a whole.

Information is given in two tables, listed below.

Contents	Table[1, 2]
All UK wastes	2.1 & 2.2

(1) Table 2.1 gives reported waste volumes at 1 April 2019 and estimated for future time periods.

(2) Table 2.2 gives the numbers of packages, packaged volumes and conditioned volumes existing at 1 April 2019, and the numbers of packages, packaged volumes and conditioned volumes once all wastes at 1 April 2019 and estimated for future arisings have been packaged. LLW package numbers exclude those streams suitable for landfill disposal, as the Inventory does not compile information on waste packaging for this disposal route.

Table 2.1: All UK wastes
Reported volume at 1 April 2019 and for future arisings (m^3)(1)

	HLW	ILW(3)	LLW	VLLW	Total
Total	**1,390**	**247,000**	**1,480,000**	**2,830,000**	**4,560,000**
At 1.4.2019	2,150	102,000	27,400	1,040	**133,000**
Total future arisings	See Note 2	145,000	1,450,000	2,830,000	**4,420,000**
Arisings 2019	See Note 2	2,060	44,300	11,600	**58,000**
Arisings 2020-2029	See Note 2	16,300	241,000	129,000	**385,000**
Arisings 2030-2039	0	15,600	109,000	122,000	**246,000**
Arisings 2040-2059	0	21,000	255,000	492,000	**768,000**
Arisings 2060-2099	0	60,800	535,000	1,090,000	**1,690,000**
Arisings post-2100	0	29,600	266,000	982,000	**1,280,000**

(1) Volumes are those reported by the waste producers. Reported volumes are for untreated or partly treated wastes, apart from wastes that are conditioned (i.e. waste streams with a /C in the identifier) where the conditioned volume is reported.

(2) From 1.4.2019 there is a net decrease in the reported volume of HLW because accumulated Highly Active Liquor (HAL) is being conditioned, which reduces its volume by about two-thirds, and also because vitrified HLW is being exported to overseas customers. Thus, the volume of 2,150 m^3 at 1.4.2019 is expected to fall by 761 m^3, to 1,390 m^3, by 2029 when all HAL (plus insoluble fission products (IFP) residues and contaminated plant items) is expected to be conditioned.

(3) ILW includes 8,640 m^3 of waste that is expected to become LLW as a result of decontamination or decay storage. This comprises 1,490 m^3 at 1.4.2019 and 7,150 m^3 for future arisings.

Table 2.2: All UK wastes
Number of packages, packaged and conditioned volumes (m^3)

	HLW	ILW(2)	LLW	VLLW(4)	Total
At 1.4.2019(1)					
Number of packages	6,101	67,307	1,324	0	**74,732**
Packaged volume	1,200	46,300	6,990	0	**54,400**
Conditioned volume	915	37,100	5,440	0	**43,500**
When all wastes at 1.4.2019 and future arisings are packaged(3)					
Number of packages	7,660	292,000	22,300	0	**322,000**
Packaged volume	1,500	499,000	1,280,000	2,690,000	**4,470,000**
Conditioned volume	1,150	370,000	1,170,000	2,690,000	**4,240,000**

(1) Package numbers and packaged volumes at 1.4.2019 are for those wastes that had been conditioned (i.e. waste streams with a /C in the identifier).

(2) ILW packages at 1.4.2019 include 1,938 1803-type drums at Trawsfynydd. These drums are expected to be overpacked in 4m boxes (6 drums per box). The conditioned volume of these wastes at 1.4.2019 is for the overpacked waste. The number of packages given for all wastes includes these 4m boxes and not the number of drums.

(3) All wastes at 1.4.2019 and future arisings includes 496 packages, 9,670 m^3 packaged volume and 7,310 m^3 conditioned volume of ILW that is expected to become LLW as a result of decontamination or decay storage.

(4) Information on VLLW packaging is not compiled.

3 WASTE VOLUMES BY REGION

This appendix presents waste volumes and package numbers for HLW, ILW LLW and VLLW, and in total, for wastes located in England, Scotland and Wales.

Some of the radioactive wastes located in England (at Sellafield) are from the reprocessing of spent fuel from reactors in Scotland and Wales.

Information is given in a number of tables, listed below.

Contents	Table(1-3)
Wastes from sites in England	3.1 & 3.2
Wastes from sites in Scotland	3.3 & 3.4
Wastes from sites in Wales	3.5 & 3.6

(1) Tables 3.1, 3.3 and 3.5 give reported waste volumes at 1 April 2019 and estimated for future time periods.

(2) Tables 3.2, 3.4, and 3.6 give the numbers of packages, packaged volumes and conditioned volumes existing at 1 April 2019, and the numbers of packages, packaged volumes and conditioned volumes once all wastes at 1 April 2019 and estimated for future arisings have been packaged. LLW package numbers exclude those streams suitable for landfill disposal, as the Inventory does not compile information on waste packaging for this disposal route.

(3) All wastes from decommissioned nuclear powered submarines, which are berthed at Devonport and Rosyth, are included in wastes from sites in England.

Table 3.1: Wastes at sites in England
Reported volume at 1 April 2019 and estimated for future arisings (m^3) (1)

	HLW	ILW(3)	LLW	VLLW	Total
Total	**1,390**	**207,000**	**1,130,000**	**2,830,000**	**4,170,000**
At 1.4.2019	2,150	89,600	11,000	1,040	**104,000**
Total future arisings	See Note 2	117,000	1,120,000	2,830,000	**4,070,000**
Arisings 2019	See Note 2	1,710	31,100	11,500	**44,300**
Arisings 2020-2029	See Note 2	13,500	159,000	128,000	**300,000**
Arisings 2030-2039	0	15,500	101,000	122,000	**238,000**
Arisings 2040-2059	0	21,000	254,000	492,000	**767,000**
Arisings 2060-2099	0	45,300	371,000	1,090,000	**1,510,000**
Arisings post-2100	0	20,300	207,000	982,000	**1,210,000**

(1) Volumes are those reported by the waste producers. Reported volumes are for untreated or partly treated wastes, apart from wastes that are conditioned (i.e. waste streams with a /C in the identifier) where the conditioned volume is reported.

(2) From 1.4.2019 there is a net decrease in the reported volume of HLW because accumulated HAL is being conditioned, which reduces its volume by about two-thirds, and also because vitrified HLW is being exported to overseas customers. Thus, the volume of 2,150 m^3 at 1.4.2019 is expected to fall by 761 m^3, to 1,390 m^3, by 2029 when all HAL (plus IFP residues and contaminated plant items) is expected to be conditioned.

(3) ILW includes 8,210 m^3 of waste that is expected to become LLW as a result of decontamination or decay storage. This comprises 1,180 m^3 at 1.4.2019 and 7,030 m^3 for future arisings.

Table 3.2: Wastes at sites in England
Number of packages, packaged and conditioned volumes (m^3)

	HLW	ILW	LLW	VLLW(3)	Total
At 1.4.2019(1)					
Number of packages	6,101	59,082	1,068	0	**66,251**
Packaged volume	1,200	35,700	2,000	0	**38,900**
Conditioned volume	915	30,000	1,660	0	**32,600**
When all wastes at 1.4.2019 and future arisings are packaged(2)					
Number of packages	7,660	271,000	9,230	0	**288,000**
Packaged volume	1,500	436,000	856,000	2,690,000	**3,980,000**
Conditioned volume	1,150	319,000	814,000	2,690,000	**3,820,000**

(1) Package numbers and packaged volumes at 1.4.2019 are for those wastes that had been conditioned (i.e. waste streams with a /C in the identifier).

(2) All wastes at 1.4.2019 and future arisings includes 463 packages, 9,010 m^3 packaged volume and 6,820 m^3 conditioned volume of ILW that is expected to become LLW as a result of decontamination or decay storage.

(3) Information on VLLW packaging is not compiled.

Table 3.3: Wastes at sites in Scotland
Reported volume at 1 April 2019 and estimated for future arisings (m^3) (1)

	ILW(2)	LLW	VLLW	Total
Total	**26,300**	**227,000**	**1,030**	**254,000**
At 1.4.2019	9,440	16,200	0	**25,600**
Total future arisings	16,900	211,000	1,030	**229,000**
Arisings 2019	357	12,700	152	**13,200**
Arisings 2020-2029	2,770	80,000	769	**83,500**
Arisings 2030-2039	87.4	8,150	0	**8,240**
Arisings 2040-2059	0	834	0	**834**
Arisings 2060-2099	8,280	90,500	110	**98,900**
Arisings post-2100	5,420	18,800	0	**24,200**

(1) Volumes are those reported by the waste producers. Reported volumes are for untreated or partly treated wastes, apart from wastes that are conditioned (i.e. waste streams with a /C in the identifier) where the conditioned volume is reported.

(2) ILW includes 422 m^3 of waste that is expected to become LLW as a result of decontamination or decay storage. This comprises 304 m^3 at 1.4.2019 and 118 m^3 for future arisings.

Table 3.4: Wastes at sites in Scotland
Number of packages, packaged and conditioned volumes (m^3)

	ILW	LLW	VLLW(3)	Total
At 1.4.2019(1)				
Number of packages	6,157	256	0	**6,413**
Packaged volume	3,750	4,990	0	**8,740**
Conditioned volume	3,290	3,780	0	**7,070**
When all wastes at 1.4.2019 and future arisings are packaged(2)				
Number of packages	19,500	9,380	0	**28,900**
Packaged volume	40,900	280,000	1,030	**321,000**
Conditioned volume	32,600	234,000	1,030	**268,000**

(1) Package numbers and packaged volumes at 1.4.2019 are for those wastes that had been conditioned (i.e. waste streams with a /C in the identifier).

(2) All wastes at 1.4.2019 and future arisings include 34 packages, 654 m^3 packaged volume and 494 m^3 conditioned volume of ILW that is expected to become LLW as a result of decontamination or decay storage.

(3) Information on VLLW packaging is not compiled.

Table 3.5: Wastes at sites in Wales
Reported volume at 1 April 2019 and estimated for future arisings (m^3) (1)

	ILW(2)	LLW	VLLW	Total
Total	**14,100**	**117,000**	**0**	**131,000**
At 1.4.2019	3,020	209	0	**3,230**
Total future arisings	11,100	117,000	0	**128,000**
Arisings 2019	0.7	530	0	**531**
Arisings 2020-2029	23.4	2,060	0	**2,080**
Arisings 2030-2039	0	40.0	0	**40.0**
Arisings 2040-2059	0	80.0	0	**80.0**
Arisings 2060-2099	7,200	73,600	0	**80,800**
Arisings post-2100	3,830	40,300	0	**44,100**

(1) Volumes are those reported by the waste producers. Reported volumes are for untreated or partly treated wastes, apart from wastes that are conditioned (i.e. waste streams with a /C in the identifier) where the conditioned volume is reported.

(2) ILW includes 6.7 m^3 of waste that is expected to become LLW as a result of decontamination or decay storage. This comprises 6.7 m^3 at 1.4.2019 and no future arisings.

Table 3.6: Wastes at sites in Wales
Number of packages, packaged and conditioned volumes (m^3)

	ILW(2)	LLW	VLLW(3)	Total
At 1.4.2019 (1)				
Number of packages	2,068	0	0	**2,068**
Packaged volume	6,850	0	0	**6,850**
Conditioned volume	3,830	0	0	**3,830**
When all wastes at 1.4.2019 and future arisings are packaged				
Number of packages	1,410	3,710	0	**5,120**
Packaged volume	22,400	143,000	0	**166,000**
Conditioned volume	18,300	126,000	0	**144,000**

(1) Package numbers and volumes at 1.4.2019 are for those wastes that had been conditioned (i.e. waste streams with a /C in the identifier).

(2) ILW packages at 1.4.2019 include 1,938 1803-type drums at Trawsfynydd. These drums are expected to be overpacked in 4m boxes (6 drums per box). The number of packages given for all wastes includes these 4m boxes and not the number of drums.

(3) Information on VLLW packaging is not compiled.

4 WASTE VOLUMES FOR EACH ORGANISATION

This appendix provides a breakdown of waste volumes and package numbers for HLW, ILW and LLW for each waste producing organisation. The organisations are:

- Nuclear Decommissioning Authority (NDA) (includes Sellafield Ltd, Magnox Ltd, LLW Repository Ltd, Dounreay Site Restoration Ltd and Springfields Fuels Ltd)
- EDF Energy
- Ministry of Defence (includes contractor owned and contractor operated sites)
- United Kingdom Atomic Energy Authority
- GE Healthcare Ltd
- Urenco[2]
- Minor waste producers.

Information is given in a number of tables, listed below.

Site owner	Table(1-3)
All site owners (all wastes)	4.1
All site owners (wastes at 1.4.2019)	4.2
All site owners (all wastes when packaged)	4.3

(1) Table 4.1 gives waste volumes at 1 April 2019 and a consolidated estimate for future arisings.

(2) Table 4.2 gives the numbers of packages, packaged volumes and conditioned volumes existing at 1 April 2019.

(3) Table 4.3 gives the numbers of packages, packaged volumes and conditioned volumes once all wastes at 1 April 2019 and for future arisings have been packaged. LLW package numbers exclude those streams suitable for landfill disposal, as the Inventory does not compile information on waste packaging for this disposal route.

[2] *Comprising Urenco Nuclear Stewardship (UNS), Urenco UK (UUK) and Urenco Chemical Plants (UCP).*

Table 4.1: Reported volume at 1 April 2019 and estimated for future arisings (m^3) (1)

Site owner		HLW	ILW	LLW	VLLW	Total
NDA	**Total**	**1,390**	**212,000**	**1,280,000**	**2,800,000**	**4,290,000**
	1.4.2019	2,150	93,500	23,100	944	**120,000**
	Future arisings	See Note 2	118,000	1,260,000	2,800,000	**4,170,000**
Ministry of Defence	**Total**	**0**	**9,730**	**41,400**	**3,070**	**54,200**
	1.4.2019	0	4,530	2,120	66.3	**6,710**
	Future arisings	0	5,200	39,300	3,000	**47,500**
EDF Energy	**Total**	**0**	**25,200**	**132,000**	**0**	**157,000**
	1.4.2019	0	3,640	714	0	**4,360**
	Future arisings	0	21,600	131,000	0	**153,000**
United Kingdom Atomic Energy Authority	**Total**	**0**	**167**	**4,560**	**0**	**4,730**
	1.4.2019	0	0	170	0	**170**
	Future arisings	0	167	4,390	0	**4,550**
GE Healthcare	**Total**	**0**	**391**	**2,280**	**0**	**2,680**
	1.4.2019	0	370	248	0	**618**
	Future arisings	0	20.5	2,040	0	**2,060**
Urenco	**Total**	**0**	**14.7**	**14,100**	**30,200**	**44,300**
	1.4.2019	0	0.7	186	0	**187**
	Future arisings	0	14.0	13,900	30,200	**44,100**
Minor waste producers	**Total**	**0**	**39.6**	**1,200**	**59.5**	**1,300**
	1.4.2019	0	22.4	772	33.0	**827**
	Future arisings	0	17.2	430	26.5	**474**
Total	**Total**	**1,390**	**247,000**	**1,480,000**	**2,830,000**	**4,560,000**
	1.4.2019	**2,150**	**102,000**	**27,400**	**1,040**	**133,000**
	Future arisings	**See Note 2**	**145,000**	**1,450,000**	**2,830,000**	**4,420,000**

(1) Volumes are those reported by the waste producers. Reported volumes are for untreated or partly treated wastes, apart from wastes that are conditioned (i.e. waste streams with a /C in the identifier) where the conditioned volume is reported.

(2) From 1.4.2019 there is a net decrease in the reported volume of HLW because accumulated HAL is being conditioned, which reduces its volume by about two-thirds, and also because vitrified HLW is being exported to overseas customers. Thus, the volume of 2,150 m^3 at 1.4.2019 is expected to fall by 761 m^3, to 1,390 m^3, by 2029 when all HAL (plus IFP residues and contaminated plant items) is expected to be conditioned.

Table 4.2: Wastes at 1 April 2019 Number of packages, packaged volume and conditioned volume [1]

Site owner	At 1.4.2019	HLW	ILW[2]	LLW	VLLW	Total
NDA	Number of packages	6,101	67,239	1,324	0	**74,664**
	Packaged volume (m^3)	1,200	46,200	6,970	0	**54,300**
	Conditioned volume (m^3)	915	37,100	5,420	0	**43,400**
Ministry of Defence	Number of packages	0	0	0	0	**0**
	Packaged volume (m^3)	0	0	25.3	0	**25.3**
	Conditioned volume (m^3)	0	0	19.1	0	**19.1**
EDF Energy	Number of packages	0	55	0	0	**55**
	Packaged volume (m^3)	0	72.6	0	0	**72.6**
	Conditioned volume (m^3)	0	26.0	0	0	**26.0**
United Kingdom Atomic Energy Authority	Number of packages	0	0	0	0	**0**
	Packaged volume (m^3)	0	0	0	0	**0**
	Conditioned volume (m^3)	0	0	0	0	**0**
GE Healthcare	Number of packages	0	0	0	0	**0**
	Packaged volume (m3)	0	0	0	0	**0**
	Conditioned volume (m^3)	0	0	0	0	**0**
Urenco	Number of packages	0	0	0	0	**0**
	Packaged volume (m^3)	0	0	0	0	**0**
	Conditioned volume (m^3)	0	0	0	0	**0**
Minor waste producers	Number of packages	0	13	0	0	**13**
	Packaged volume (m^3)	0	18.2	0	0	**18.2**
	Conditioned volume (m^3)	0	15.0	0	0	**15.0**
Total	**Number of packages**	**6,101**	**67,307**	**1,324**	**0**	74,732
	Packaged volume (m^3)	**1,200**	**46,300**	**6,990**	**0**	54,400
	Conditioned volume (m^3)	**915**	**37,100**	**5,440**	**0**	43,500

(1) Package numbers and packaged volumes are for those wastes that had been conditioned (i.e. waste streams with a /C in the identifier).

(2) ILW packages from NDA include 1,938 type 1803 drums. These drums are expected to be overpacked in 4m boxes (6 drums per box).

Table 4.3: All wastes when packaged
Number of packages, packaged volume and conditioned volume

Site owner	When all wastes at 1.4.2019 and future arisings are packaged	HLW	ILW	LLW	VLLW[1]	Total
NDA	Number of packages	7,660	276,000	17,700	0	**301,000**
	Packaged volume (m^3)	1,500	447,000	1,150,000	2,660,000	**4,260,000**
	Conditioned volume (m^3)	1,150	332,000	1,070,000	2,660,000	**4,060,000**
Ministry of Defence	Number of packages	0	9,910	260	0	**10,200**
	Packaged volume (m^3)	0	8,690	30,600	3,070	**42,300**
	Conditioned volume (m^3)	0	7,150	29,300	3,070	**39,500**
EDF Energy	Number of packages	0	5,020	4,260	0	**9,280**
	Packaged volume (m^3)	0	42,400	83,200	0	**126,000**
	Conditioned volume (m^3)	0	30,200	64,200	0	**94,300**
United Kingdom Atomic Energy Authority	Number of packages	0	45	54.0	0	**99.0**
	Packaged volume (m^3)	0	480	4,120	0	**4,600**
	Conditioned volume (m^3)	0	203	3,870	0	**4,080**
GE Healthcare	Number of packages	0	410	29.5	0	**439**
	Packaged volume (m^3)	0	234	2,360	0	**2,600**
	Conditioned volume (m^3)	0	191	2,220	0	**2,410**
Urenco	Number of packages	0	32	2.0	0	**34.0**
	Packaged volume (m^3)	0	18.0	5,740	30,200	**35,900**
	Conditioned volume (m^3)	0	14.7	5,730	30,200	**35,900**
Minor waste producers	Number of packages	0	60	29.0	0	**89.0**
	Packaged volume (m^3)	0	48.0	1,230	58.2	**1,340**
	Conditioned volume (m^3)	0	39.4	1,090	58.2	**1,190**
Total	**Number of packages**	**7,660**	**292,000**	**22,300**	**0**	322,000
	Packaged volume (m^3)	**1,500**	**499,000**	**1,280,000**	**2,690,000**	4,470,000
	Conditioned volume (m^3)	**1,150**	**370,000**	**1,170,000**	**2,690,000**	4,240,000

(1) Information on VLLW packaging is not compiled.

5 SITE INFORMATION SHEETS

The following information sheets provide an overview of radioactive wastes for each producing site in the UK:

Each information sheet contains the following information:

- **Background** – general information about the nature of the site
- **Scenario** – the basis of future radioactive waste estimates
- **Waste volume** – a table giving the reported volumes for each waste type generated at the site at 1 April 2019, in future arisings and in total; and the total packaged volume and number of packages once all waste has been packaged for long-term management or disposal
- **Profile of waste arisings** – a chart showing the volume of future arisings against time for each waste type
- **Radioactivity** – a table showing total activity for each waste type at 1 April 2019, and at 2050, 2100 and 2200. Total activity is the sum of all reported radionuclide activities and includes the activities of short-lived daughter products.

AMERSHAM (GE HEALTHCARE)

Background

GE Healthcare is a supplier of radioisotopes for medical, research and industrial uses, operating in the UK from its site in Amersham.

Scenario

The company announced in 2018 its intention to cease manufacturing operations at Amersham in 2019, with the site moving into a programme of full decommissioning and site clearance over the next 7-10 years.

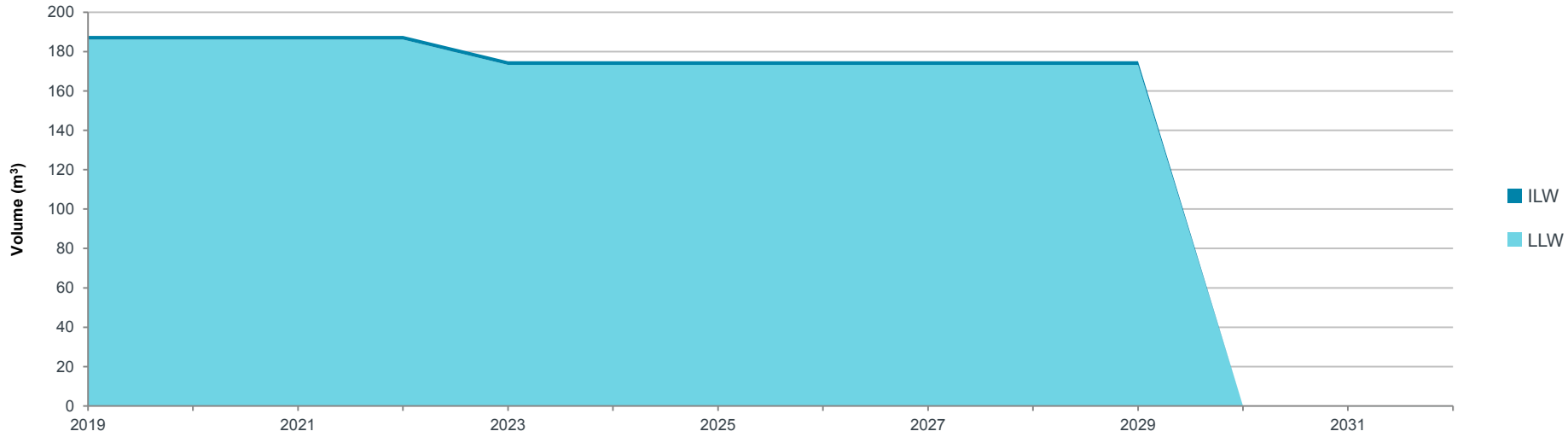
The tritium ILW liability at Cardiff has been transferred to a new tritium store on the Amersham site.

The change in business direction results in future radioactive waste arisings being estimated up to 2030. Volumes are based on inventories of wastes in stock and decommissioning waste estimates.

Waste volume

Waste type	Reported volume at 1 April 2019 (m^3)	Reported future arisings (m^3)	All wastes at 1 April 2019 and future arisings		
			Reported volume (m^3)	Packaged volume (m^3)	Number of packages
ILW	370	20.5	391	234	410
LLW	248	1,960	2,200	2,280	30
VLLW	0	0	0	0	0
Total	**618**	**1,980**	**2,600**	**2,520**	**440**

Profile of waste arisings



Radioactivity

Waste category	Total activity (TBq) At 1.4.2019	At 1.4.2050	At 1.4.2100	At 1.4.2200
ILW	12,000	4,900	1,700	370
LLW	0.07	1.5	0.64	0.28
VLLW	0	0	0	0
Total	**12,000**	**4,900**	**1,700**	**370**

ALDERMASTON & BURGHFIELD (MOD)

Background

The primary purpose of AWE is to support UK nuclear security needs. UK Government policy is to maintain Trident and the nuclear deterrence programme to underpin national security and deter credible threats to the nation. In the Government's National Security Strategy and Strategic Defence and Security Review 2015, the warhead system is described as not needing replacement until at least the late 2030s. In the meantime the Government will continue to invest significantly in AWE to maintain the facilities and skills required to develop a replacement warhead if required. AWE's nuclear facilities are located at Aldermaston and Burghfield in Berkshire. Assembly and disassembly of nuclear weapons are the principal nuclear licensed activities that take place at Burghfield. The Aldermaston site is primarily engaged with research, development, manufacturing and storage of weapon components. For the purposes of the Inventory, Aldermaston and Burghfield are considered as a single entity as all radioactive waste storage and disposal is coordinated from Aldermaston.

Scenario

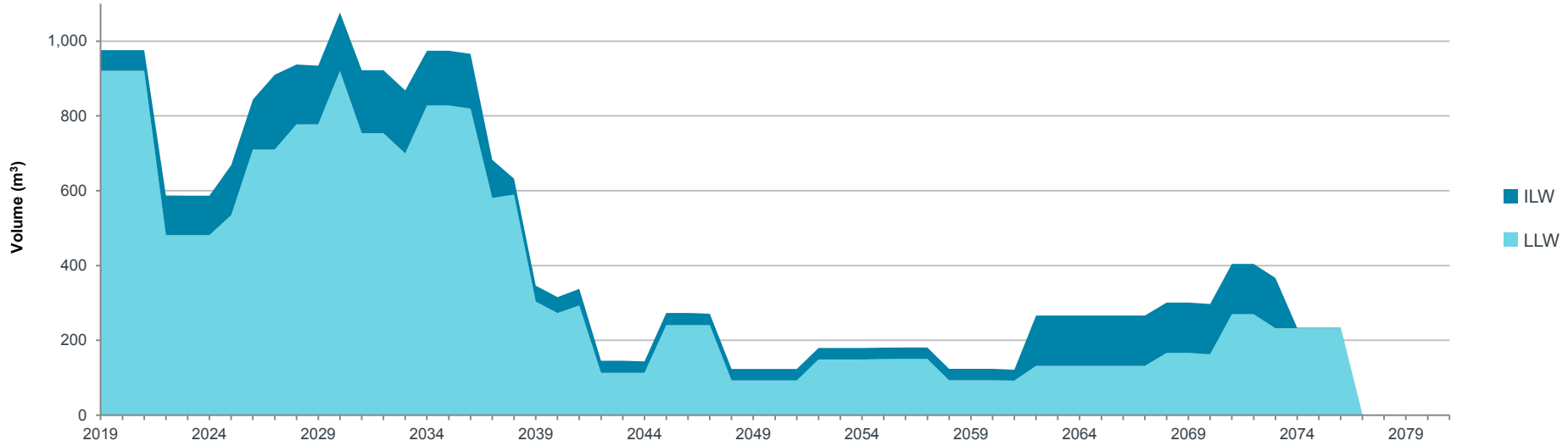
The inventory includes radioactive waste liabilities from legacy waste stock; waste from production and research facilities; and waste from the decommissioning of existing and future nuclear facilities including final land remediation. As no viable site end point is currently determinable, a future "end of operations" date has been assumed. This is the date when all currently operational facilities are decommissioned and all higher activity waste has been disposed to a Geological Disposal Facility (GDF). This date is estimated to be 2080.

Waste volume

The sites generate ILW and LLW, mostly plutonium contaminated materials. Future decommissioning is the major contributor to arisings.

Waste type	Reported volume at 1 April 2019 (m^3)	Reported future arisings (m^3)	All wastes at 1 April 2019 and future arisings		
			Reported volume (m^3)	Packaged volume (m^3)	Number of packages
ILW	4,460	4,890	9,350	5,770	8,970
LLW	1,780	20,800	22,600	18,800	187
VLLW	0	0	0	0	0
Total	**6,240**	**25,700**	**31,900**	**24,600**	**9,160**

Profile of waste arisings



Radioactivity

Waste category	Total activity (TBq) At 1.4.2019	At 1.4.2050	At 1.4.2100	At 1.4.2200
ILW	1,000	1,300	1,400	1,300
LLW	3.4	3.4	2.9	2.6
VLLW	0	0	0	0
Total	**1,000**	**1,300**	**1,400**	**1,300**

BARROW-IN-FURNESS (BAESM)

Background

At Barrow-in-Furness in Cumbria, BAE Systems Marine Ltd builds, tests and commissions nuclear-powered submarines in support of the MOD nuclear submarine programme.

Scenario

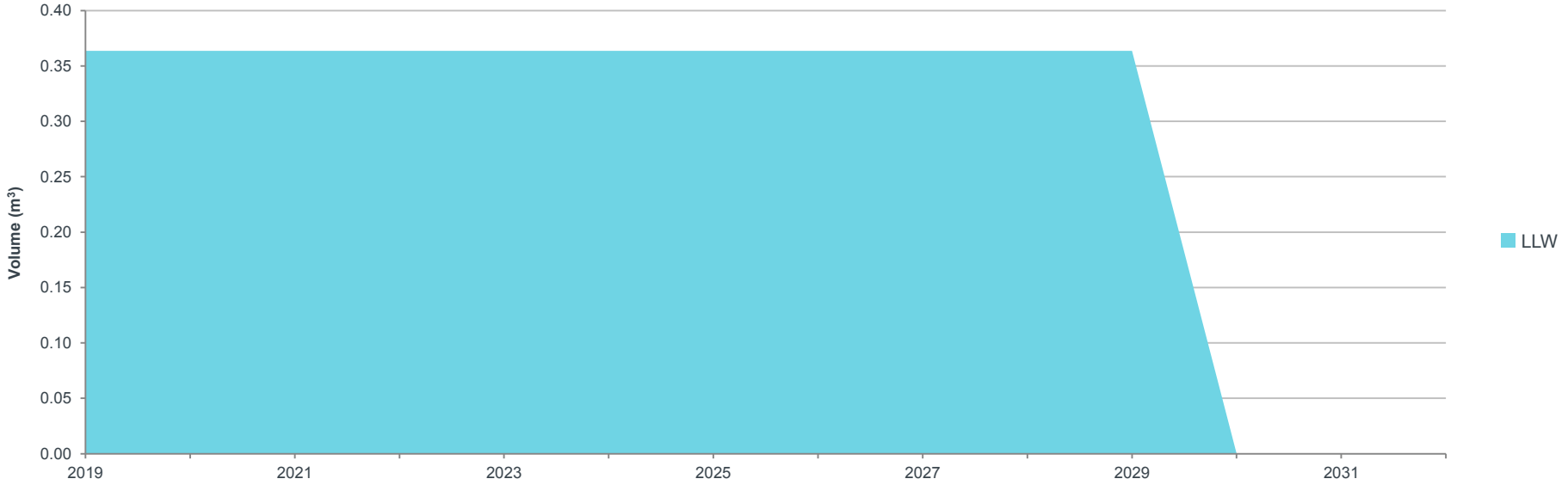
The site generates only small quantities of radioactive waste associated with the commissioning of submarine nuclear reactors.

Waste volume

The site is forecast to produce only small quantities of LLW.

Waste type	Reported volume at 1 April 2019 (m^3)	Reported future arisings (m^3)	All wastes at 1 April 2019 and future arisings		
			Reported volume (m^3)	Packaged volume (m^3)	Number of packages
ILW	0	0	0	0	0
LLW	0	4	4	0	0
VLLW	0	0	0	0	0
Total	**0**	**4**	**4**	**0**	**0**

Profile of waste arisings



Radioactivity

Waste category	Total activity (TBq) At 1.4.2019	At 1.4.2050	At 1.4.2100	At 1.4.2200
ILW	0	0	0	0
LLW	0	NE	NE	NE
VLLW	0	0	0	0
Total	**0**	**0**	**0**	**0**

BERKELEY (NDA)

Background

Berkeley is a twin-reactor Magnox nuclear power station on the west coast of England in Gloucestershire. Berkeley operated from 1962 to 1989. The station is now shut down and is being decommissioned.

Active handling facilities at Berkeley (previously part of Berkeley Centre) used to provide research and development facilities including a post-irradiation examination service. Operations ended in 2005, and the facilities have been decommissioned.

Scenario

The decommissioning strategy for the Magnox sites is deferred dismantling of the reactors, comprising three phases – Defuelling and Care & Maintenance Preparations; Care & Maintenance; Final Site Clearance.

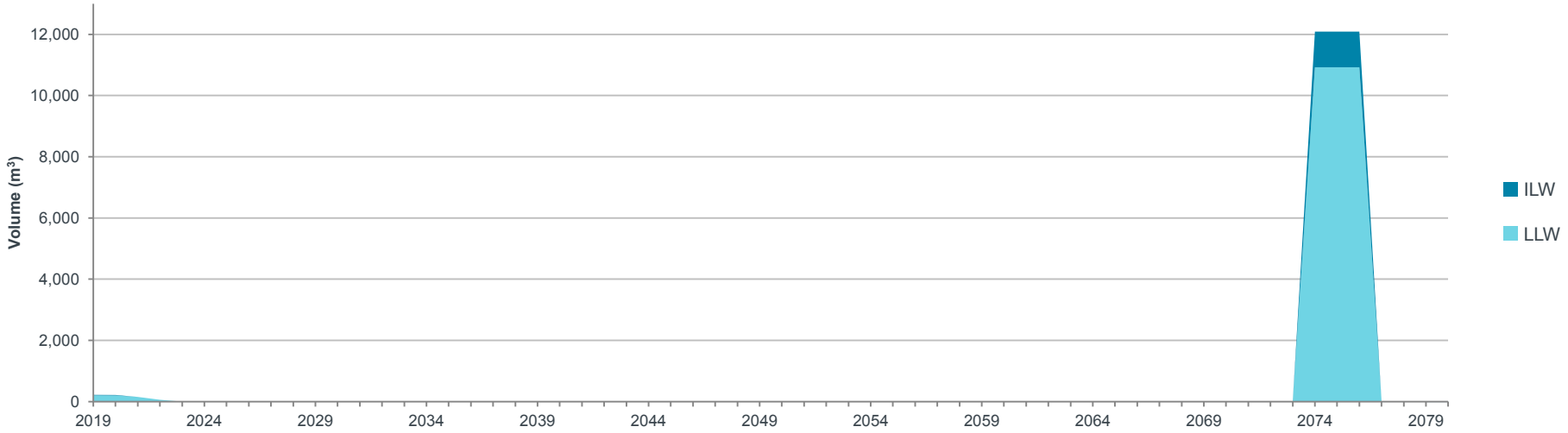
Berkeley has been defuelled, and Care & Maintenance Preparations are scheduled to be completed in 2023. The period of Care & Maintenance extends from 2023 to 2074 and Final Site Clearance from 2070 to 2079.

Waste volume

Stocks of ILW and LLW are from legacy operations and on-going decommissioning. Future arisings are principally from final site clearance.

Waste type	Reported volume at 1 April 2019 (m^3)	Reported future arisings (m^3)	All wastes at 1 April 2019 and future arisings		
			Reported volume (m^3)	Packaged volume (m^3)	Number of packages
ILW	1,550	3,530	5,080	8,320	690
LLW	0.88	33,500	33,500	30,600	47
VLLW	0	0	0	0	0
Total	**1,550**	**37,000**	**38,600**	**38,900**	**736**

Profile of waste arisings



Radioactivity

Waste category	Total activity (TBq)			
	At 1.4.2019	At 1.4.2050	At 1.4.2100	At 1.4.2200
ILW	650	140	1,000	620
LLW	<0.001	0.62	1.8	1.1
VLLW	0	0	0	0
Total	**650**	**150**	**1,000**	**620**

BRADWELL (NDA)

Background

Bradwell is a twin-reactor Magnox nuclear power station on the east coast of England in Essex. Bradwell operated from 1962 to 2002. The station is now shut down and is being decommissioned.

Scenario

The decommissioning strategy for the Magnox sites is deferred dismantling of the reactors, comprising three phases – Defuelling and Care & Maintenance Preparations; Care & Maintenance; Final Site Clearance.

Bradwell has been defuelled, and Care & Maintenance Preparations were completed in 2018. The period of Care & Maintenance extends from 2018 to 2087 and Final Site Clearance from 2083 to 2092.

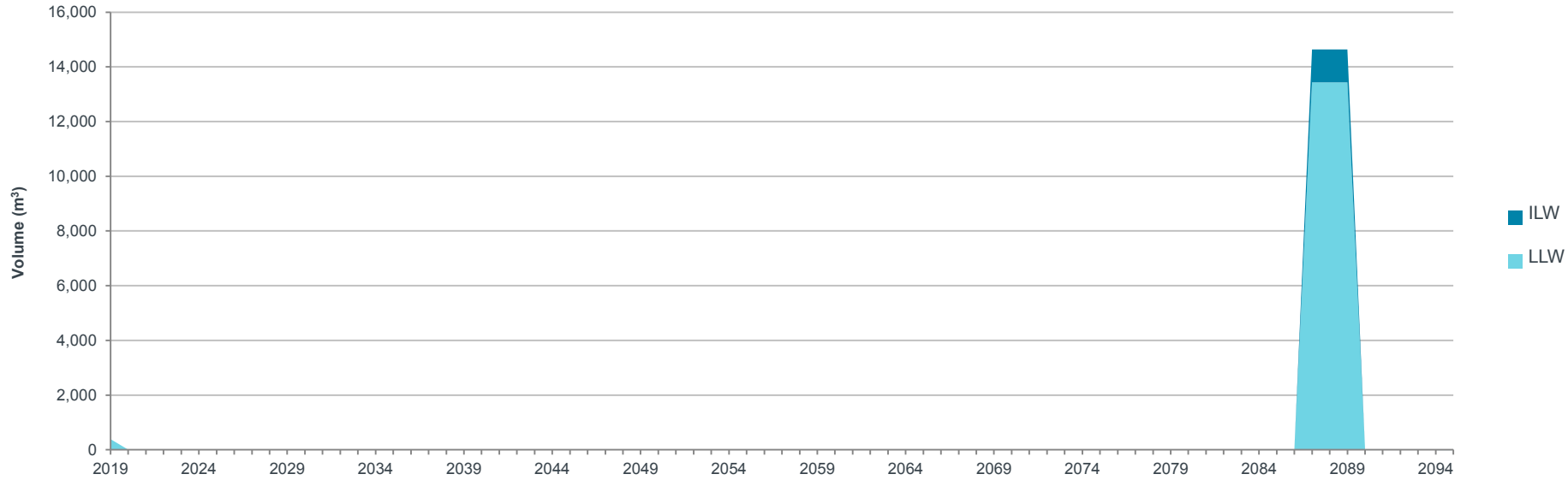
Waste volume

Stocks of ILW and LLW are from legacy operations and on-going decommissioning. Future arisings are principally from final site clearance.

Waste type	Reported volume at 1 April 2019 (m^3)	Reported future arisings (m^3)	All wastes at 1 April 2019 and future arisings		
			Reported volume (m^3)	Packaged volume (m^3)	Number of packages
ILW(1)	261	3,610	3,870	5,210	397
LLW	269	40,900	41,200	38,100	28
VLLW	0	0	0	0	0
Total	**530**	**44,500**	**45,000**	**43,300**	**425**

(1) Some packaged ILW will be disposed of as LLW.

Profile of waste arisings



Radioactivity

Waste category	Total activity (TBq)			
	At 1.4.2019	At 1.4.2050	At 1.4.2100	At 1.4.2200
ILW	2,000	600	1,700	1,000
LLW	0.005	0.04	2.9	1.6
VLLW	0	0	0	0
Total	**2,000**	**600**	**1,700**	**1,000**

CAPENHURST (URENCO UK)

Background

The Capenhurst site in Cheshire engages in uranium enrichment and uranics management. The site receives natural uranium hexafluoride (UF_6) for U235 enrichment in gas centrifuge plants. The enriched UF_6 is transferred off site for conversion into uranium dioxide, which is used in the fabrication of nuclear fuel and intermediate products.

Scenario

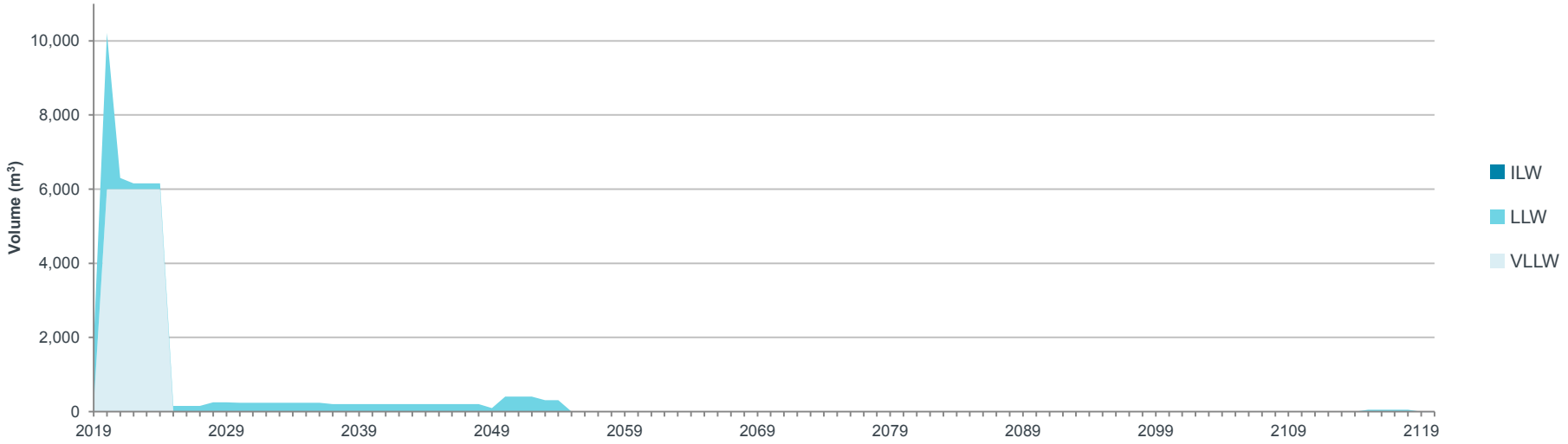
A new Tails Management Facility (TMF) is being commissioned at Capenhurst and will deconvert UF_6 tails to U_3O_8 for safer longer-term storage. The TMF will deconvert uranium tails from enrichment operations on-site, Urenco group material from overseas and the tails from Government-owned uranium by-product/legacy material from uranium enrichment. Future arisings at Capenhurst will depend on the outlook for the worldwide nuclear power industry, the commercial contracts won by the group and the installation of new enrichment capacity and decommissioning waste as facilities reach end of life. Waste volumes from the enrichment plant are estimated up to 2039. The TMF is assumed to be operational from 2019 to 2049, after which the uranium oxide store is forecast to be maintained until 2119 and decommissioned by 2124.

Waste volume

Uranium enrichment involves bulk chemical processing that produces a number of low level radioactive waste streams. These include filters, process residues, and other solid wastes. Future arisings also include land contamination VLLW (soil and concrete foundations).

Waste type	Reported volume at 1 April 2019 (m^3)	Reported future arisings (m^3)	All wastes at 1 April 2019 and future arisings		
			Reported volume (m^3)	Packaged volume (m^3)	Number of packages
ILW	0.66	14	14.7	18.0	32
LLW	186	13,900	14,100	5,740	2
VLLW	0	30,200	30,200	30,200	Not quantified
Total	**187**	**44,100**	**44,300**	**35,900**	**34**

Profile of waste arisings



Radioactivity

Waste category	Total activity (TBq)			
	At 1.4.2019	At 1.4.2050	At 1.4.2100	At 1.4.2200
ILW	0.05	1.9	2.2	2.2
LLW	0.02	1.6	1.7	1.7
VLLW	0	0.48	0.48	0.48
Total	**0.07**	**4.0**	**4.3**	**4.3**

CARDIFF (GE HEALTHCARE)

Background

GE Healthcare is a supplier of radioisotopes for medical, research and industrial uses, operating in the UK from sites in Amersham and Cardiff.

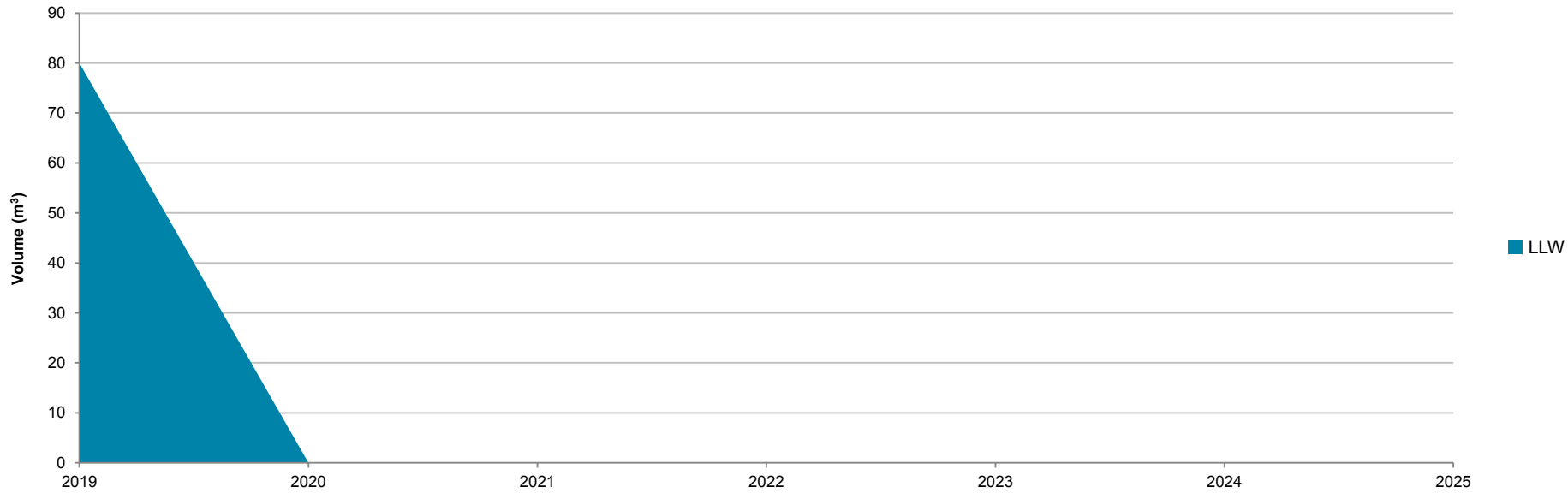
Scenario

Manufacturing operations at Cardiff ceased in 2008 with 80% of the site decommissioned and delicensed by 2015. The remaining 20% of the site, known as the Cardiff Nuclear Licensed Site (CNLS), has stored the company's tritium and carbon-14 ILW. This site is now undergoing full decommissioning and delicensing by the end of 2019. The carbon-14 ILW liability has been disposed of by incineration, with the tritium ILW liability transferred to a new tritium store on the Amersham site.

Waste volume

Waste type	Reported volume at 1 April 2019 (m^3)	Reported future arisings (m^3)	All wastes at 1 April 2019 and future arisings		
			Reported volume (m^3)	Packaged volume (m^3)	Number of packages
ILW	0	0	0	0	0
LLW	0	80	80	80	0
VLLW	0	0	0	0	0
Total	**0**	**80**	**80**	**80**	**0**

Profile of waste arisings



Radioactivity

Waste category	Total activity (TBq)			
	At 1.4.2019	At 1.4.2050	At 1.4.2100	At 1.4.2200
ILW	0	0	0	0
LLW	0	0.01	0.01	0.01
VLLW	0	0	0	0
Total	**0**	**0.01**	**0.01**	**0.01**

CHAPELCROSS (NDA)

Background

Chapelcross is a four-reactor Magnox nuclear power station on the west coast of Scotland in Dumfries and Galloway. Chapelcross operated from 1959 to 2004. The station is now shut down and is being decommissioned.

Scenario

The decommissioning strategy for the Magnox sites is deferred dismantling of the reactors, comprising three phases – Defuelling and Care & Maintenance Preparations; Care & Maintenance; Final Site Clearance.

Chapelcross has been defuelled, and Care & Maintenance Preparations are scheduled to be completed in 2025. The period of Care & Maintenance extends from 2025 to 2089 and Final Site Clearance from 2085 to 2095.

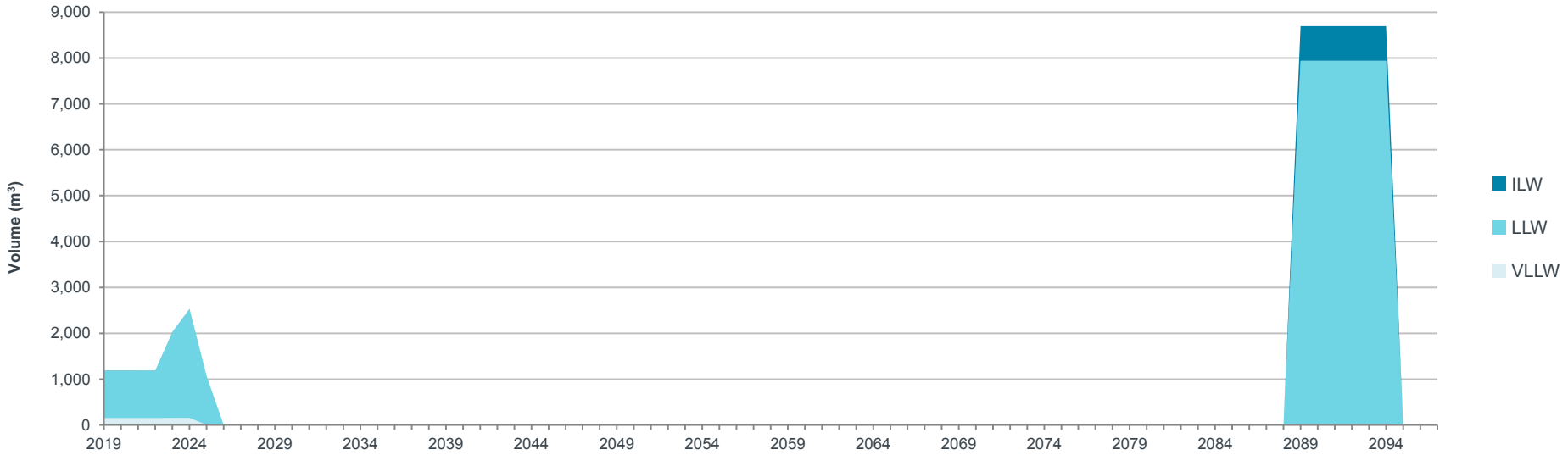
Waste volume

Stocks of ILW and LLW are from legacy operations and on-going care and maintenance preparations. Future arisings are principally from final site clearance.

Waste type	Reported volume at 1 April 2019 (m^3)	Reported future arisings (m^3)	All wastes at 1 April 2019 and future arisings		
			Reported volume (m^3)	Packaged volume (m^3)	Number of packages
ILW[(1)]	338	4,560	4,900	6,820	760
LLW	367	57,100	57,500	47,400	124
VLLW	0	1,030	1,030	1,030	Not quantified
Total	**705**	**62,700**	**63,400**	**55,300**	**884**

(1) Some packaged ILW will be disposed of as LLW

Profile of waste arisings



Radioactivity

Waste category	Total activity (TBq)			
	At 1.4.2019	At 1.4.2050	At 1.4.2100	At 1.4.2200
ILW	25,000	4,600	2,000	1,100
LLW	2.0	3.5	3.1	1.4
VLLW	0	<0.001	<0.001	<0.001
Total	**25,000**	**4,600**	**2,000**	**1,100**

HMNB CLYDE (MOD)

Background

The Clyde submarine base at Faslane near Helensburgh in Dunbartonshire provides maintenance and support services for the operational UK nuclear submarines and the storage, processing, maintenance and issue of key elements of the UK's Trident Deterrent Missile System.

Scenario

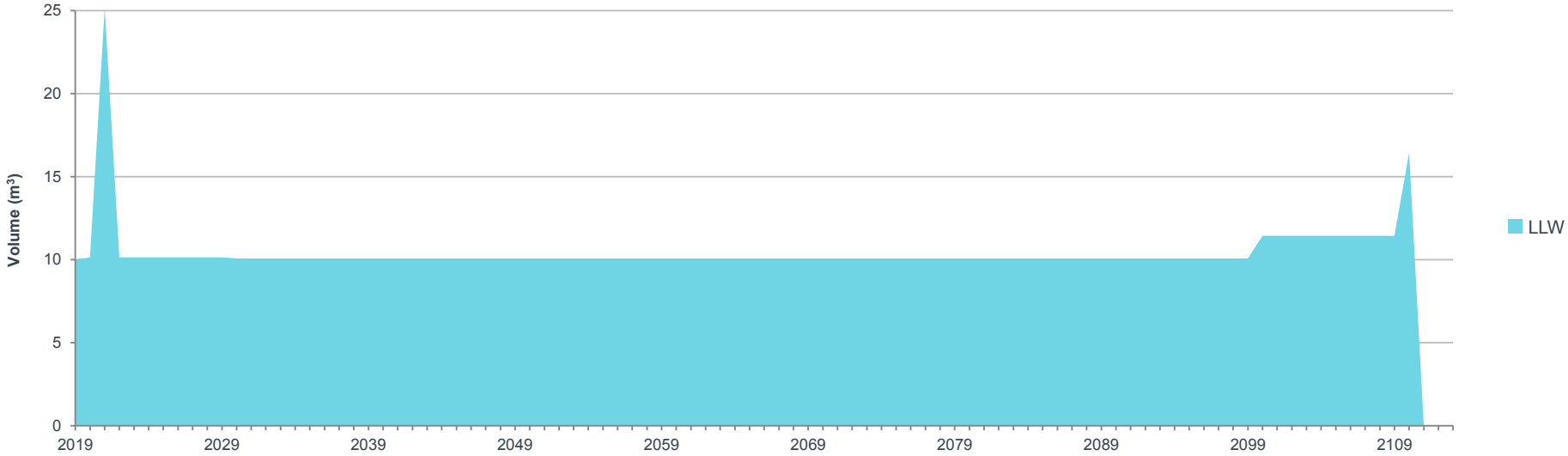
Radioactive wastes arise from weapons handling, operations at sea and the maintenance and repair of submarine nuclear propulsion systems at berth. The radioactive waste forecast is based on the predicted number of submarines home-ported at Clyde, and planned infrastructure development and decommissioning work. It is assumed that Clyde continues to operate until 2110.

Waste volume

LLW is generated from nuclear submarine reactor compartments, laboratories, waste processing areas and effluent treatment.

Waste type	Reported volume at 1 April 2019 (m^3)	Reported future arisings (m^3)	All wastes at 1 April 2019 and future arisings		
			Reported volume (m^3)	Packaged volume (m^3)	Number of packages
ILW	0	0	0	0	0
LLW	36.0	962	998	18.3	1
VLLW	0	0	0	0	0
Total	**36.0**	**962**	**998**	**18.3**	**1**

Profile of waste arisings



Radioactivity

Waste category	Total activity (TBq)			
	At 1.4.2019	At 1.4.2050	At 1.4.2100	At 1.4.2200
ILW	0	0	0	0
LLW	<0.001	0.001	0.002	<0.001
VLLW	0	0	0	0
Total	**<0.001**	**0.001**	**0.002**	**<0.001**

CULHAM (UKAEA)

Background

Culham Centre for Fusion Energy (CCFE) is the UK centre for fusion research. In 1978 the site became the host to the European 'flagship' fusion project the Joint European Torus (JET). Other facilities at Culham include the Mega Amp Spherical Tokamak fusion research machine.

Scenario

Small quantities of ILW and LLW will continue to be produced from operating the JET fusion experiment. The reference decommissioning strategy assumes operations continue to 2020 and the facility then moves immediately into decommissioning. However, the length of future operations is uncertain and operations are also expected to continue for some time in support of ITER (a larger fusion device being constructed in France). At the time of report production there is some uncertainty over what further experiments will take place, and therefore the final inventory of the plant. There is, however, an agreed limit on the maximum neutron production from deuterium-tritium operations, which has been used to define a bounding inventory for the wastes and is likely to be fully utilised. Based on a start date of July 2021 for JET decommissioning, removal of the torus facility is programmed for completion in 2026. The Active Gas Handling System will remain operational during JET dismantling and then be fully decommissioned by September 2028, and the JET site completely cleared by the end of 2029.

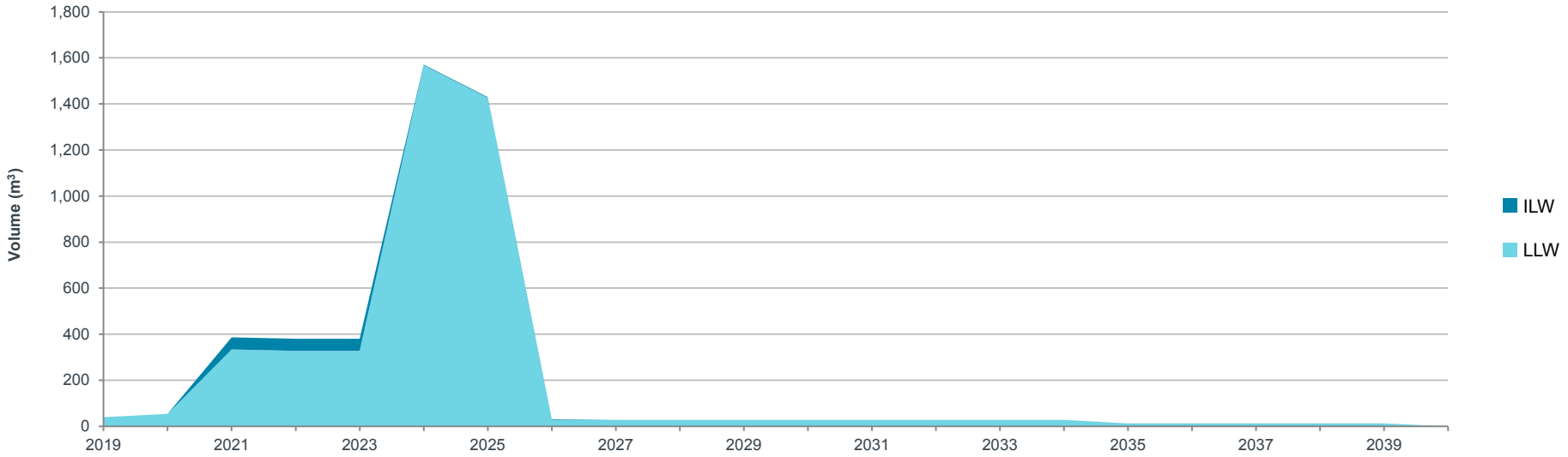
The Culham site also houses UKAEA's MRF (Materials Research Facility) which will undertake research with radioactive materials and will continue to generate small amounts of radioactive waste until 2037. Future facilities are also planned for the Culham site, notably the Hydrogen 3 Advanced Technology (H3AT) facilities, which will also generate small amounts of radioactive waste until approximately 2037.

Waste volume

Waste type	Reported volume at 1 April 2019 (m^3)	Reported future arisings (m^3)	All wastes at 1 April 2019 and future arisings		
			Reported volume (m^3)	Packaged volume (m^3)	Number of packages
ILW	0	167	167	480	45
LLW	170	4,390	4,560	4,120	54
VLLW	0	0	0	0	0

Total	**170**	**4,550**	**4,730**	**4,600**	**99**

Profile of waste arisings



Radioactivity

Waste category	Total activity (TBq)			
	At 1.4.2019	At 1.4.2050	At 1.4.2100	At 1.4.2200
ILW	0	2,100	130	0.50
LLW	0.58	1.1	0.69	0.42
VLLW	0	0	0	0
Total	**0.58**	**2,100**	**130**	**0.92**

DERBY (RRSL)

Background

Rolls Royce Submarines Ltd (RRSL) operates two nuclear licensed sites at Raynesway in Derby, where work is carried out in support of the MOD's nuclear submarine programme. RRSL manufactures the reactors for the Navy's nuclear powered submarines and operates the low energy Neptune reactor used to develop submarine reactor designs.

Scenario

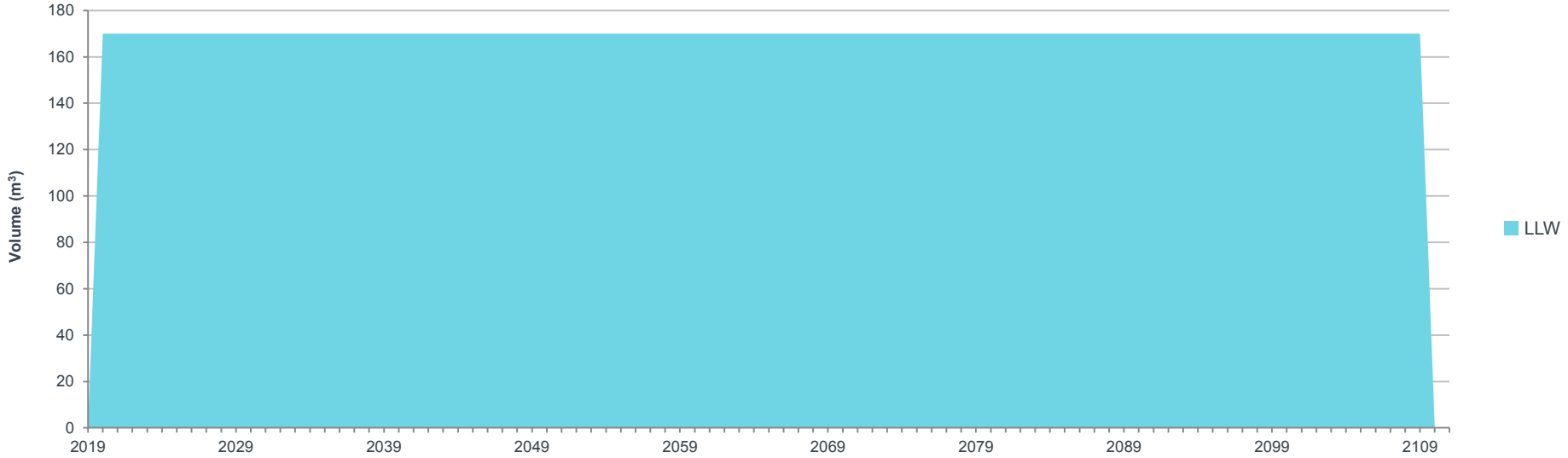
The future of the sites is inextricably linked to the future operational requirements of the submarine fleet. It is assumed that both of the nuclear licensed sites will operate at the current levels of activity until 2110.

Waste volume

LLW is produced at RRSL from facility operations.

Waste type	Reported volume at 1 April 2019 (m^3)	Reported future arisings (m^3)	All wastes at 1 April 2019 and future arisings		
			Reported volume (m^3)	Packaged volume (m^3)	Number of packages
ILW	0	0	0	0	0
LLW	225	15,300	15,500	10,200	0
VLLW	0	0	0	0	0
Total	**225**	**15,300**	**15,500**	**10,200**	**0**

Profile of waste arisings



Radioactivity

Waste category	Total activity (TBq)			
	At 1.4.2019	At 1.4.2050	At 1.4.2100	At 1.4.2200
ILW	0	0	0	0
LLW	NE	NE	NE	NE
VLLW	0	0	0	0
Total	**NE**	**NE**	**NE**	**NE**

HMNB DEVONPORT (MOD)

Background

The Devonport site comprises the Naval Base (owned and operated by the MOD) and its co-located Dockyard (owned and operated by Babcock International Group plc). Devonport provides maintenance and support services for the operational UK nuclear submarine squadrons. It has the facilities to carry out operations associated with submarine refitting and defuelling. Since 2004 all UK nuclear submarine refitting work has been carried out at Devonport.

Scenario

Operational waste arisings from Devonport have been derived by extrapolation of historical data and are forecasted up to 2030. A number of nuclear-powered submarines have been taken out of service and decommissioned; twelve are stored afloat at Devonport.

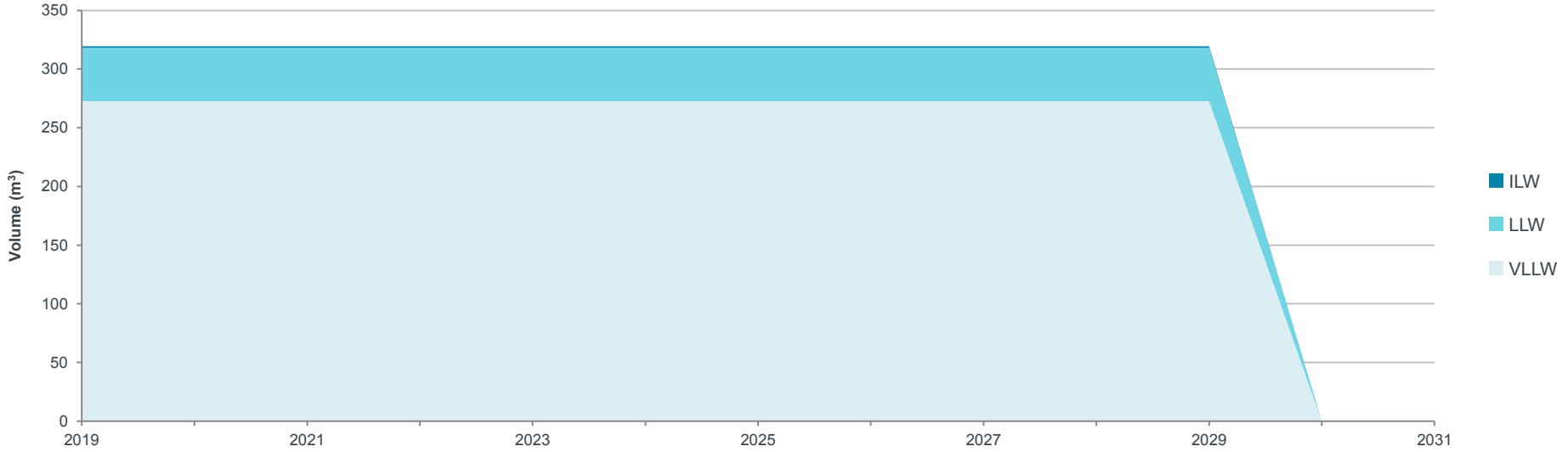
Waste volume

Most operational waste is hard and soft VLLW from nuclear repair activities.

Waste type	Reported volume at 1 April 2019 (m^3)	Reported future arisings (m^3)	All wastes at 1 April 2019 and future arisings		
			Reported volume (m^3)	Packaged volume (m^3)	Number of packages
ILW(1)	29.4	15	44.4	195	11
LLW	64.2	499	564	579	28
VLLW	66.3	3,000	3,070	3,070	Not quantified
Total	**160**	**3,510**	**3,670**	**3,840**	**39**

(1) Some packaged ILW will be disposed of as LLW.

Profile of waste arisings



Radioactivity

Waste category	Total activity (TBq)			
	At 1.4.2019	At 1.4.2050	At 1.4.2100	At 1.4.2200
ILW	1.8	0.46	0.42	0.39
LLW	0.21	0.10	0.08	0.06
VLLW	<0.001	<0.001	<0.001	<0.001
Total	**2.0**	**0.56**	**0.49**	**0.45**

DOUNREAY (NDA)

Background

Dounreay in Caithness was the UK centre for fast reactor research. Three reactors were built on site: the Dounreay Fast Reactor (DFR), the Prototype Fast Reactor (PFR) and the Dounreay Materials Test Reactor (DMTR). These reactors are now closed. The site also included facilities for reprocessing spent PFR fuel, PIE of fuels and the manufacture and reprocessing of Materials Testing Reactor (MTR) fuels as well as waste facilities.

Scenario

The core programme of work at Dounreay is now focused on the decommissioning, and the treatment, packaging, storage and/or disposal of wastes.

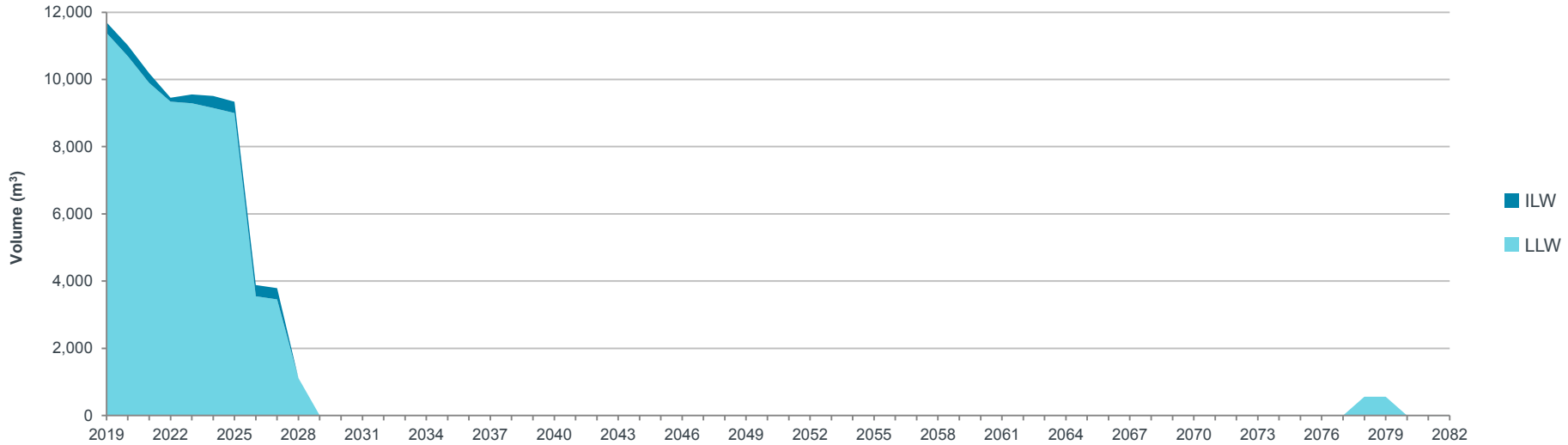
The first phase of the new LLW disposal facility (for wastes from Dounreay and the adjacent Vulcan site) has been constructed, and disposals started in 2015. Compliant waste packages are grouted on site prior to consignment for disposal. Additionally LLW will be retrieved from the existing authorised LLW Pits Complex and disposed to the new LLW disposal facility. Waste will be removed from both the ILW shaft and silo. It will be characterised and packaged into a final form in a single treatment plant. The current site plan is that all redundant facilities will be decommissioned by 2030.

Waste volume

Stocks of ILW are from legacy operations, including cemented PFR, DFR and MTR raffinates. Stocks of LLW comprise compacted and conditioned waste from legacy operations that are in interim storage and waste from on-going decommissioning projects. The LLW projected in the 2070s assumes the existing ILW stores will be decommissioned and replaced.

Waste type	Reported volume at 1 April 2019 (m^3)	Reported future arisings (m^3)	All wastes at 1 April 2019 and future arisings		
			Reported volume (m^3)	Packaged volume (m^3)	Number of packages
ILW	5,070	2,670	7,740	12,400	15,600
LLW	15,700	78,000	93,700	171,000	8,050
VLLW	0	0	0	0	0
Total	**20,800**	**80,700**	**101,000**	**184,000**	**23,700**

Profile of waste arisings



Radioactivity

Waste category	Total activity (TBq)			
	At 1.4.2019	At 1.4.2050	At 1.4.2100	At 1.4.2200
ILW	260,000	130,000	47,000	12,000
LLW	2.5	12	5.7	3.3
VLLW	0	0	0	0
Total	**260,000**	**130,000**	**47,000**	**12,000**

DONNINGTON (MOD)

Background

MOD Donnington, in Shropshire, acts as a collection centre for redundant equipment containing radioactive material, principally both in-service and redundant equipment containing gaseous tritium light sources, electrodeposited nickel-63 sources and legacy equipment containing radium luminised components. Equipment is disposed of as soon as possible when declared as waste in accordance with current legislation.

Scenario

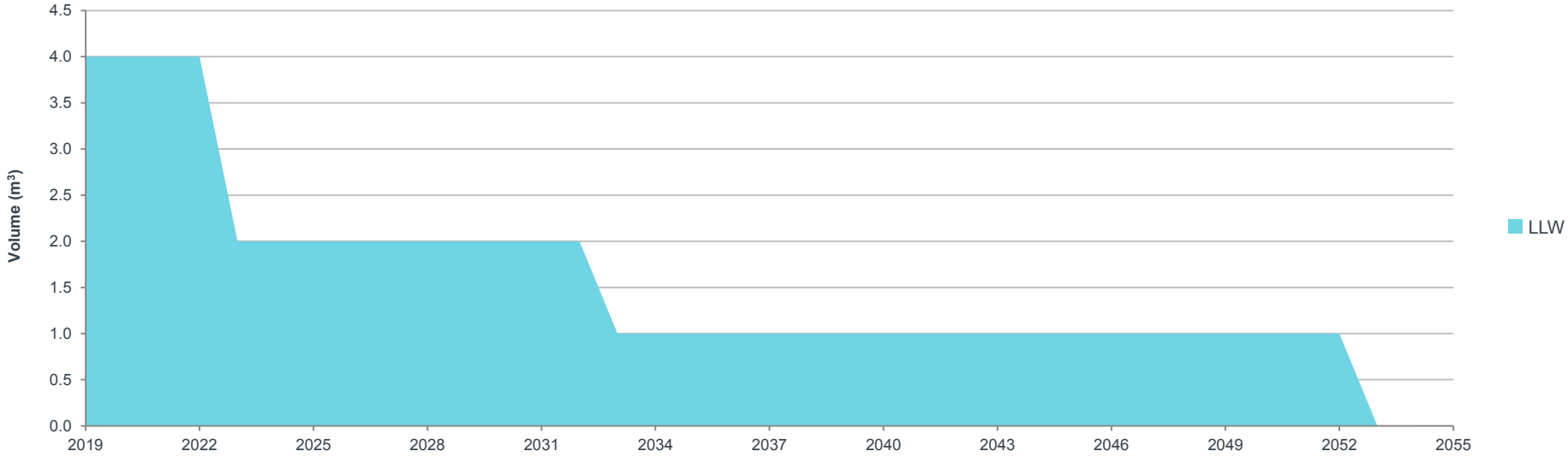
The future needs of MOD will govern waste arisings. It is assumed that waste will continue to arise at current levels, and is reported up to 2052.

Waste volume

There are no wastes currently stored at Donnington. Future arisings of LLW are difficult to determine, but are assumed to be of low volume.

Waste type	Reported volume at 1 April 2019 (m^3)	Reported future arisings (m^3)	All wastes at 1 April 2019 and future arisings		
			Reported volume (m^3)	Packaged volume (m^3)	Number of packages
ILW	0	0	0	0	0
LLW	0	56	56	74.0	4
VLLW	0	0	0	0	0
Total	**0**	**56**	**56**	**74.0**	**4**

Profile of waste arisings



Radioactivity

Waste category	Total activity (TBq)			
	At 1.4.2019	At 1.4.2050	At 1.4.2100	At 1.4.2200
ILW	0	0	0	0
LLW	0	NE	NE	NE
VLLW	0	0	0	0
Total	**0**	**NE**	**NE**	**NE**

DUNGENESS A (NDA)

Background

Dungeness A is a twin-reactor Magnox nuclear power station on the south coast of England in Kent. Dungeness A operated from 1965 to 2006. The station is now shut down and is being decommissioned.

Scenario

The decommissioning strategy for the Magnox sites is deferred dismantling of the reactors, comprising three phases – Defuelling and Care & Maintenance Preparations; Care & Maintenance; Final Site Clearance.

Dungeness A has been defuelled, and Care & Maintenance Preparations are scheduled to be completed in 2025. The period of Care & Maintenance extends from 2025 to 2092 and Final Site Clearance from 2088 to 2097.

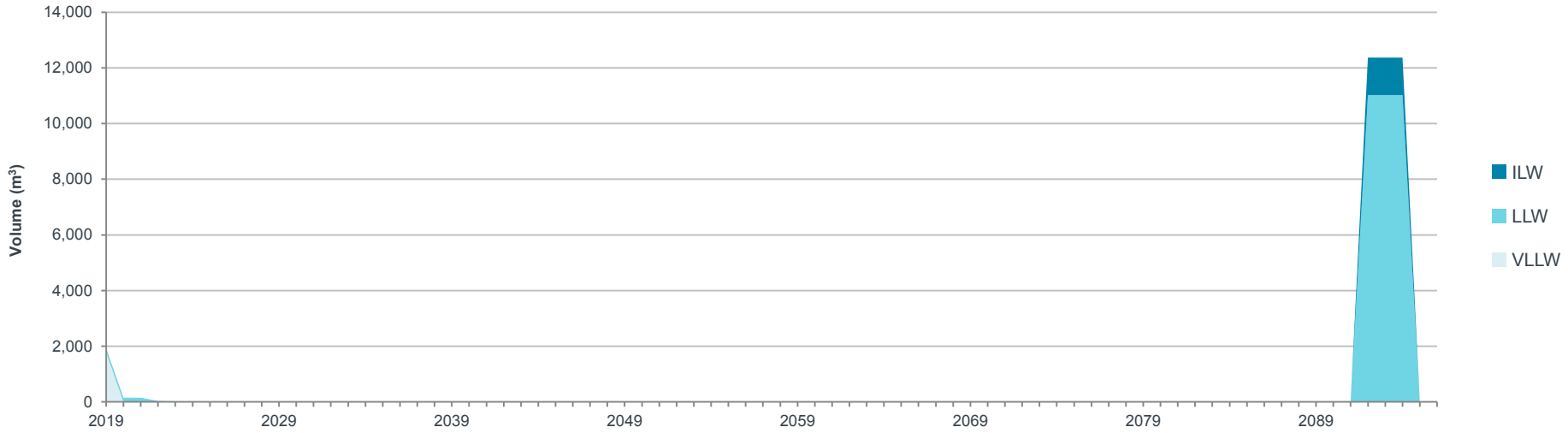
Waste volume

Stocks of ILW and LLW are from legacy operations and on-going care and maintenance preparations. Future arisings are principally from final site clearance.

Waste type	Reported volume at 1 April 2019 (m^3)	Reported future arisings (m^3)	All wastes at 1 April 2019 and future arisings		
			Reported volume (m^3)	Packaged volume (m^3)	Number of packages
ILW [(1)]	307	4,050	4,350	5,580	436
LLW	269	33,700	34,000	32,100	82
VLLW	0	1,770	1,770	1,770	Not quantified
Total	**577**	**39,500**	**40,100**	**39,500**	**518**

(1) 17.4 m^3 reported volume (59.1 m^3 packaged volume; 45 packages) are stored at Bradwell.

Profile of waste arisings



Radioactivity

Waste category	Total activity (TBq)			
	At 1.4.2019	At 1.4.2050	At 1.4.2100	At 1.4.2200
ILW	2,300	810	1,300	860
LLW	1.2	1.2	5.0	2.7
VLLW	0	<0.001	<0.001	<0.001
Total	**2,300**	**810**	**1,300**	**860**

DUNGENESS B (EDFE)

Background

Dungeness B is a twin-reactor nuclear power station on the south coast of England in Kent. Dungeness B has been operating since 1983.

Scenario

Dungeness B is scheduled to operate until 2028.

The decommissioning strategy for the AGR sites is 'Early Safestore', comprising three phases – Defuelling and Care & Maintenance Preparations; Care & Maintenance; Reactor Dismantling & Final Site Clearance. For Dungeness B the period of Defuelling and Care & Maintenance Preparations extends from 2028 to 2039, Care & Maintenance from 2039 to 2113 and Final Site Clearance from 2113 to 2122.

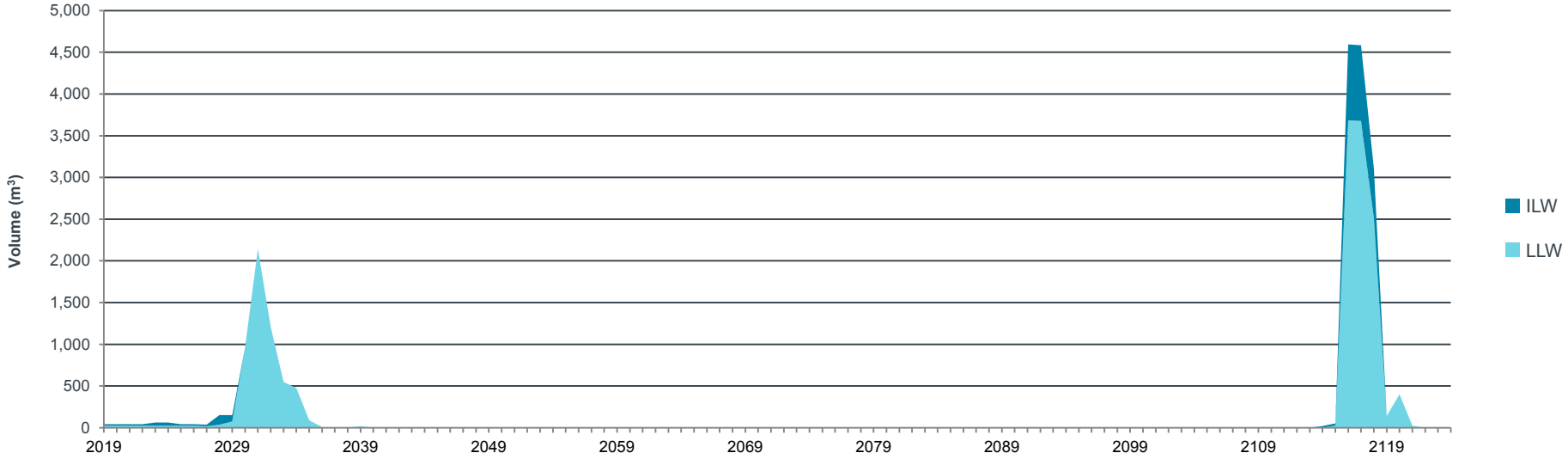
Waste volume

The majority of waste is LLW from future reactor decommissioning.

Waste type	Reported volume at 1 April 2019 (m^3)	Reported future arisings (m^3)	All wastes at 1 April 2019 and future arisings		
			Reported volume (m^3)	Packaged volume (m^3)	Number of packages
ILW(1)	589	2,860	3,450	6,160	588
LLW	50.2	16,300	16,400	9,200	469
VLLW	0	0	0	0	0
Total	**639**	**19,200**	**19,800**	**15,400**	**1,060**

(1) Some packaged ILW will be disposed of as LLW.

Profile of waste arisings



Radioactivity

Waste category	Total activity (TBq)			
	At 1.4.2019	At 1.4.2050	At 1.4.2100	At 1.4.2200
ILW	140,000	35,000	20,000	11,000
LLW	0.01	0.48	0.21	2.9
VLLW	0	0	0	0
Total	**140,000**	**35,000**	**20,000**	**11,000**

HARTLEPOOL (EDFE)

Background

Hartlepool is a twin-reactor nuclear power station on the north-east coast of England in Durham. Hartlepool has been operating since 1983.

Scenario

Hartlepool scheduled to operate until 2024.

The decommissioning strategy for the AGR sites is 'Early Safestore', comprising three phases – Defuelling and Care & Maintenance Preparations; Care & Maintenance; Reactor Dismantling & Final Site Clearance. For Hartlepool the period of Defuelling and Care & Maintenance Preparations extends from 2024 to 2036, Care & Maintenance from 2036 to 2109 and Final Site Clearance from 2109 to 2119.

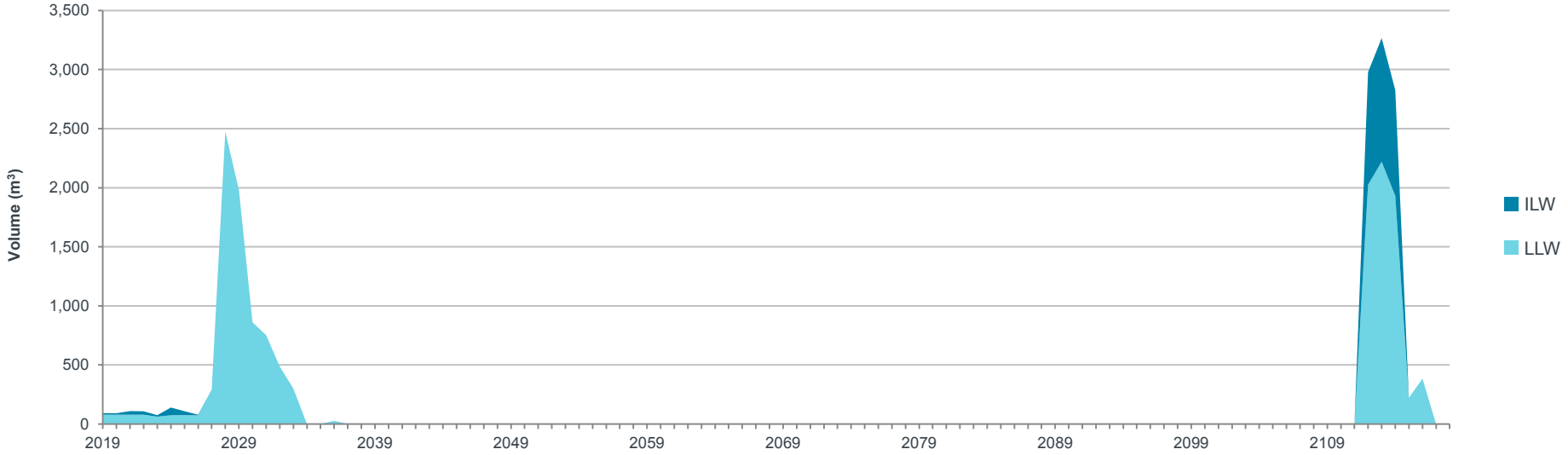
Waste volume

The majority of waste is LLW from future reactor decommissioning.

Waste type	Reported volume at 1 April 2019 (m^3)	Reported future arisings (m^3)	All wastes at 1 April 2019 and future arisings		
			Reported volume (m^3)	Packaged volume (m^3)	Number of packages
ILW[(1)]	341	3,090	3,430	5,380	388
LLW	104	14,600	14,700	9,510	487
VLLW	0	0	0	0	0
Total	**445**	**17,700**	**18,200**	**14,900**	**875**

(1) Some packaged ILW will be disposed of as LLW.

Profile of waste arisings



Radioactivity

Waste category	Total activity (TBq)			
	At 1.4.2019	At 1.4.2050	At 1.4.2100	At 1.4.2200
ILW	320,000	92,000	61,000	31,000
LLW	0.04	0.16	0.07	1.3
VLLW	0	0	0	0
Total	**320,000**	**92,000**	**61,000**	**31,000**

HARWELL (NDA)

Background

Harwell in Oxfordshire has been a site for research into a variety of nuclear related topics for over 50 years. A range of reactors and other research facilities (including accelerators, radioactive handling facilities and laboratories) operated until the 1990s. Three redundant reactors remain on the Harwell site: the British Experimental Pile 0 (BEP0) reactor and the materials test reactors DIDO and PLUTO were decommissioned to Stage 2 (i.e. dismantling and removal of most of the remaining fixed radioactive material) several years ago, and all are currently under a minimum Care and Maintenance (C&M) regime.

Scenario

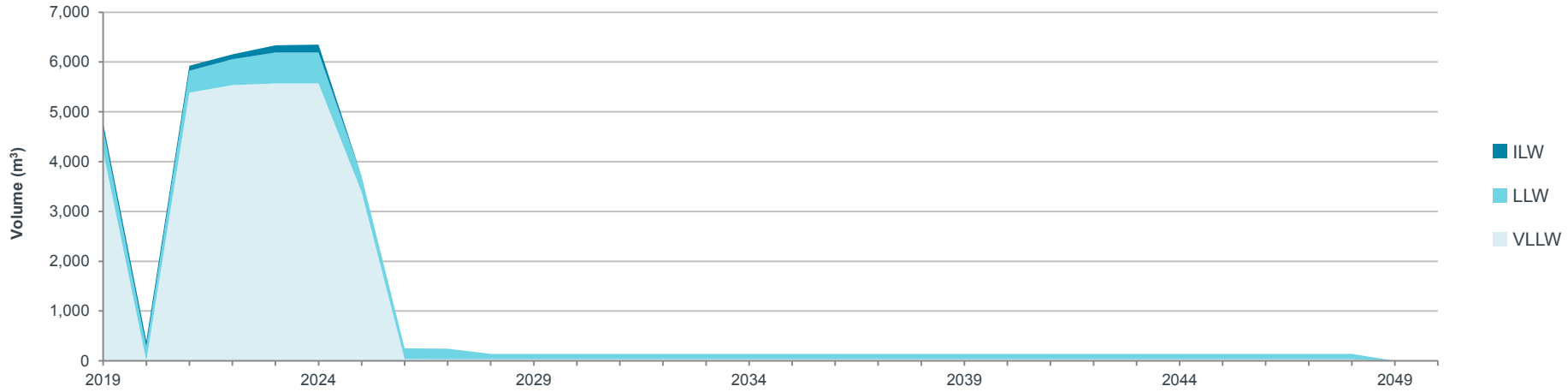
The reference strategy is to decommission and remediate the site so that by 2027 the only licensed facilities remaining would be stores for packaged operational and decommissioning ILW. Final decommissioning of the reactors is scheduled to start in 2019 for BEP0 and 2021 for the MTRs. The radiochemical facility ceased operations in 2004, although parts of the building were used subsequently to process certain historic wastes and are currently being used for the interim storage of contact-handled ILW in drums. Stage 1 decommissioning (i.e. removal of all radioactive sources and readily removable equipment) of certain laboratories was undertaken before full shutdown and under the reference plan the whole of the building should be decommissioned by the end of 2025. The site is in the process of establishing similar waste processing operations as part of the wider scope of waste processing in the Solid Waste Complex.

Waste volume

The majority of ILW in stock is from operational wastes, particularly wastes that were originally packaged in sea dump drums. LLW and VLLW in stock are decommissioning wastes. Future arisings are from decommissioning. VLLW consists of soil and rubble from reactor decommissioning and land remediation.

Waste type	Reported volume at 1 April 2019 (m^3)	Reported future arisings (m^3)	All wastes at 1 April 2019 and future arisings		
			Reported volume (m^3)	Packaged volume (m^3)	Number of packages
ILW	1,240	729	1,970	5,030	3,320
LLW	1,330	5,910	7,240	6,180	103
VLLW	472	30,400	30,900	24,900	Not quantified
Total	**3,040**	**37,100**	**40,100**	**36,100**	**3,420**

Profile of waste arisings



Radioactivity

Waste category	Total activity (TBq)			
	At 1.4.2019	At 1.4.2050	At 1.4.2100	At 1.4.2200
ILW	17,000	6,500	2,400	720
LLW	3.1	15	9.0	4.9
VLLW	0.009	0.16	0.10	0.08
Total	**17,000**	**6,500**	**2,400**	**730**

HEYSHAM 1 (EDFE)

Background

Heysham 1 is a twin-reactor nuclear power station on the north-west coast of England in Lancashire. Heysham 1 has been operating since 1983.

Scenario

Heysham 1 is scheduled to operate until 2024.

The decommissioning strategy for the AGR sites is 'Early Safestore', comprising three phases – Defuelling and Care & Maintenance Preparations; Care & Maintenance; Reactor Dismantling & Final Site Clearance. For Heysham 1 the period of Defuelling and Care & Maintenance Preparations extends from 2024 to 2035, Care & Maintenance from 2035 to 2109 and Final Site Clearance from 2109 to 2119.

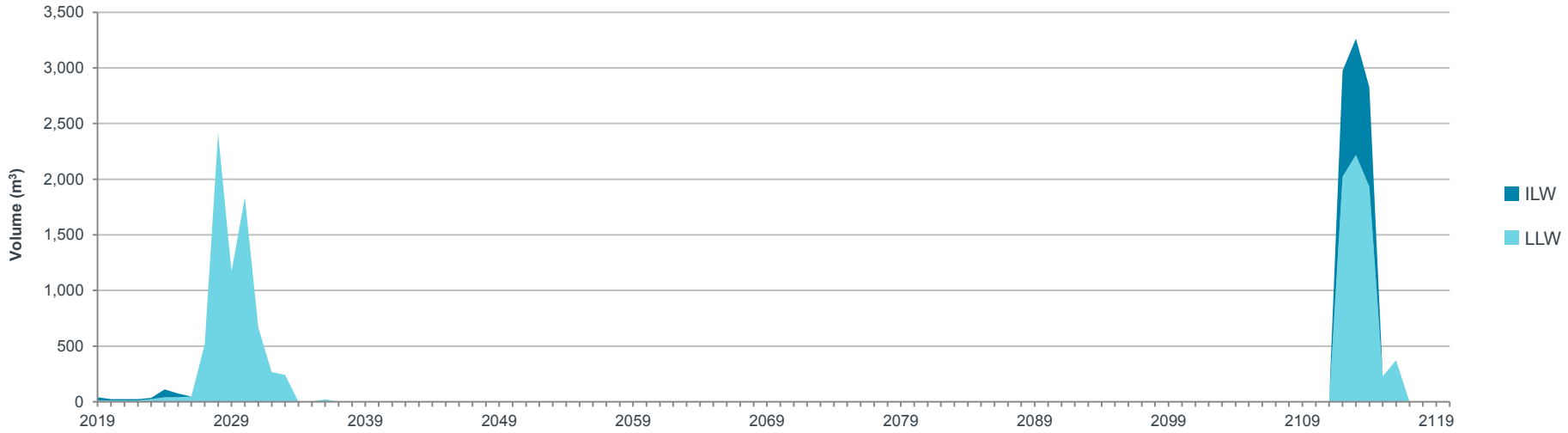
Waste volume

The majority of waste is LLW from future reactor decommissioning.

Waste type	Reported volume at 1 April 2019 (m^3)	Reported future arisings (m^3)	All wastes at 1 April 2019 and future arisings		
			Reported volume (m^3)	Packaged volume (m^3)	Number of packages
ILW[(1)]	284	3,070	3,350	5,340	383
LLW	112	14,200	14,300	9,490	486
VLLW	0	0	0	0	0
Total	**397**	**17,300**	**17,700**	**14,800**	**869**

(1) Some packaged ILW will be disposed of as LLW.

Profile of waste arisings



Radioactivity

Waste category	Total activity (TBq)			
	At 1.4.2019	At 1.4.2050	At 1.4.2100	At 1.4.2200
ILW	190,000	85,000	57,000	30,000
LLW	0.24	0.90	0.53	1.5
VLLW	0	0	0	0
Total	**190,000**	**85,000**	**57,000**	**30,000**

HEYSHAM 2 (EDFE)

Background

Heysham 2 is a twin-reactor nuclear power station on the north-west coast of England in Lancashire. Heysham 2 has been operating since 1988.

Scenario

Heysham 2 is scheduled to operate until 2030.

The decommissioning strategy for the AGR sites is 'Early Safestore', comprising three phases – Defuelling and Care & Maintenance Preparations; Care & Maintenance; Reactor Dismantling & Final Site Clearance. For Heysham 2 the period of Defuelling and Care & Maintenance Preparations extends from 2030 to 2043, Care & Maintenance from 2043 to 2115 and Final Site Clearance from 2115 to 2125.

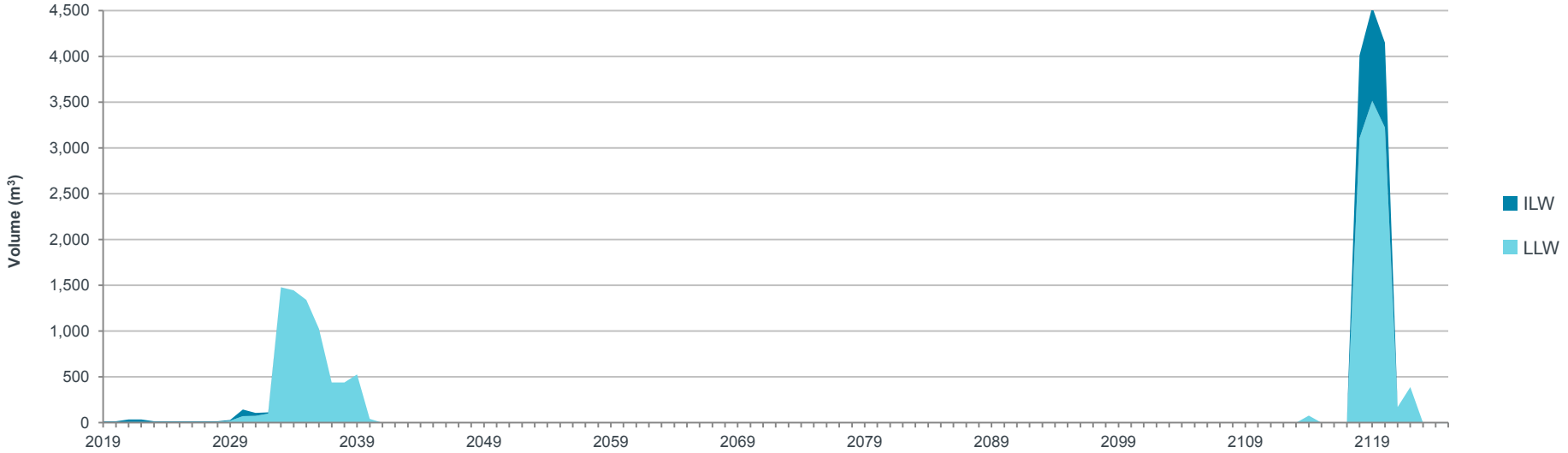
Waste volume

The majority of waste is LLW from future reactor decommissioning.

Waste type	Reported volume at 1 April 2019 (m^3)	Reported future arisings (m^3)	All wastes at 1 April 2019 and future arisings		
			Reported volume (m^3)	Packaged volume (m^3)	Number of packages
ILW[(1)]	245	3,110	3,350	5,370	389
LLW	39.5	17,600	17,600	11,500	588
VLLW	0	0	0	0	0
Total	**284**	**20,700**	**21,000**	**16,800**	**977**

(1) Some packaged ILW will be disposed of as LLW.

Profile of waste arisings



Radioactivity

Waste category	Total activity (TBq)			
	At 1.4.2019	At 1.4.2050	At 1.4.2100	At 1.4.2200
ILW	30,000	11,000	5,700	3,800
LLW	0.06	2.0	0.77	1.2
VLLW	0	0	0	0
Total	30,000	11,000	5,700	3,800

HINKLEY POINT A (NDA)

Background

Hinkley Point A is a twin-reactor Magnox nuclear power station on the west coast of England in Somerset. Hinkley Point A operated from 1965 to 2000. The station is now shut down and is being decommissioned.

Scenario

The decommissioning strategy for the Magnox sites is deferred dismantling of the reactors, comprising three phases – Defuelling and Care & Maintenance Preparations; Care & Maintenance; Final Site Clearance.

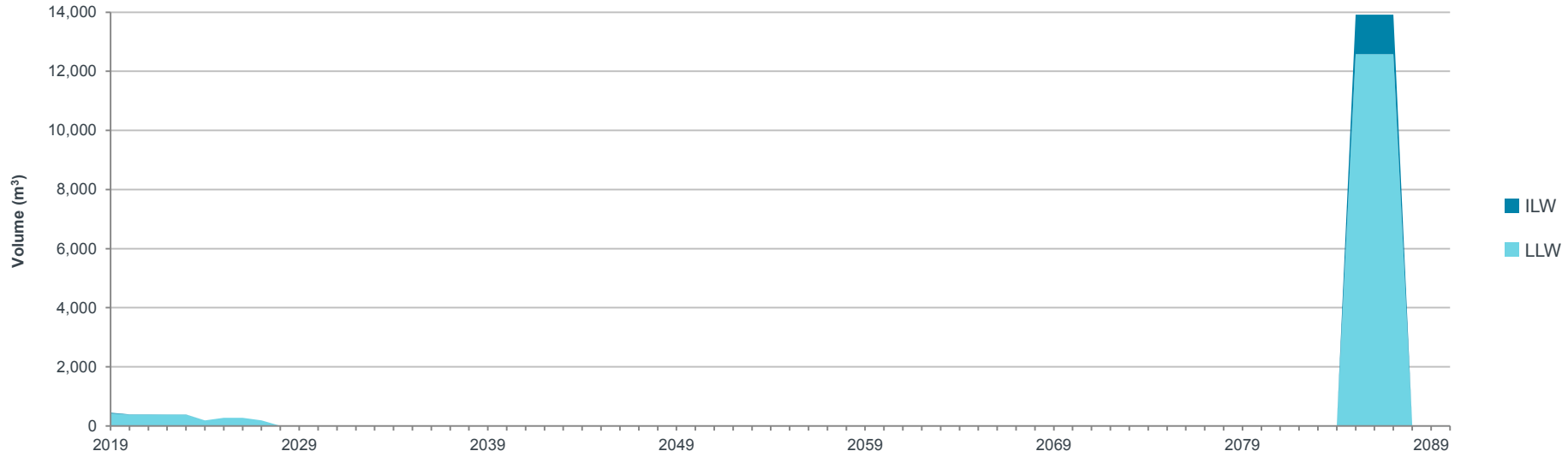
Hinkley Point A has been defuelled, and Care & Maintenance Preparations are scheduled to be completed in 2027. The period of Care & Maintenance extends from 2027 to 2085 and Final Site Clearance from 2081 to 2090.

Waste volume

Stocks of ILW and LLW are from legacy operations and on-going decommissioning. Future arisings are principally from final site clearance.

Waste type	Reported volume at 1 April 2019 (m^3)	Reported future arisings (m^3)	All wastes at 1 April 2019 and future arisings		
			Reported volume (m^3)	Packaged volume (m^3)	Number of packages
ILW	1,280	4,070	5,350	8,270	751
LLW	66.8	40,700	40,800	37,900	154
VLLW	415	0	415	413	Not quantified
Total	**1,760**	**44,800**	**46,500**	**46,600**	**905**

Profile of waste arisings



Radioactivity

Waste category	Total activity (TBq)			
	At 1.4.2019	At 1.4.2050	At 1.4.2100	At 1.4.2200
ILW	6,800	4,000	4,300	2,300
LLW	0.80	0.87	10	5.6
VLLW	0.005	<0.001	<0.001	<0.001
Total	**6,800**	**4,000**	**4,300**	**2,300**

HINKLEY POINT B (EDFE)

Background

Hinkley Point B is a twin-reactor nuclear power station on the south-west coast of England in Somerset. Hinkley Point B has been operating since 1976.

Scenario

Hinkley Point B is scheduled to operate until 2023.

The decommissioning strategy for the AGR sites is 'Early Safestore', comprising three phases – Defuelling and Care & Maintenance Preparations; Care & Maintenance; Reactor Dismantling & Final Site Clearance. For Hinkley Point B the period of Defuelling and Care & Maintenance Preparations extends from 2023 to 2034, Care & Maintenance from 2034 to 2108 and Final Site Clearance from 2108 to 2117.

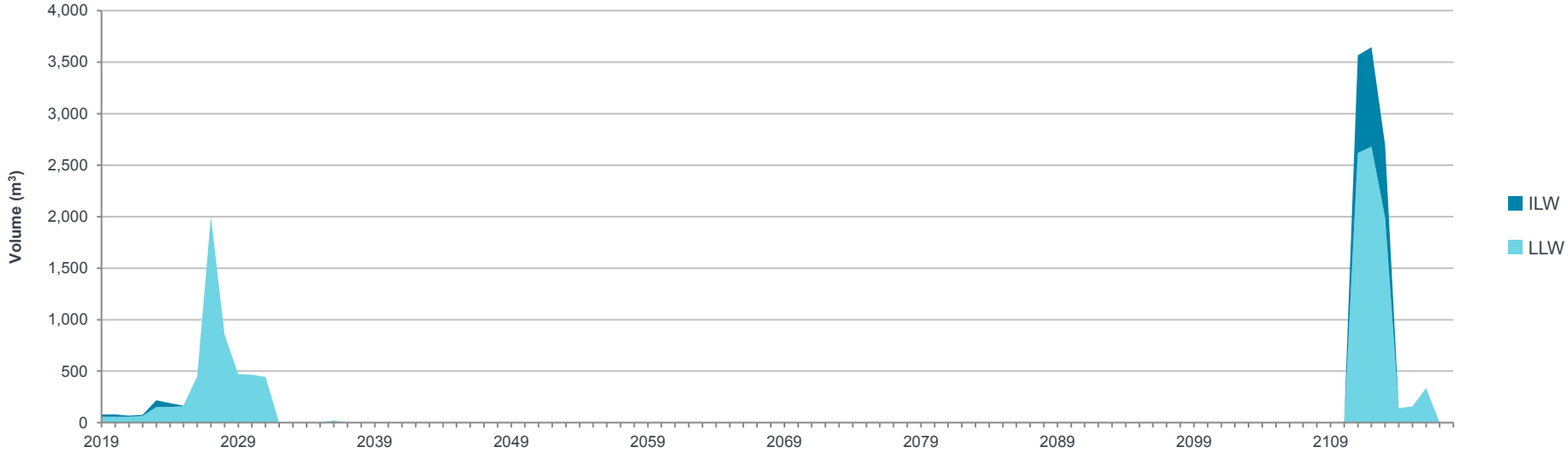
Waste volume

The majority of waste is LLW from future reactor decommissioning.

Waste type	Reported volume at 1 April 2019 (m^3)	Reported future arisings (m^3)	All wastes at 1 April 2019 and future arisings		
			Reported volume (m^3)	Packaged volume (m^3)	Number of packages
ILW[(1)]	866	2,790	3,660	6,270	441
LLW	95.2	13,400	13,500	8,240	422
VLLW	0	0	0	0	0
Total	**961**	**16,200**	**17,200**	**14,500**	**863**

(1) Some packaged ILW will be disposed of as LLW.

Profile of waste arisings



Radioactivity

Waste category	Total activity (TBq)			
	At 1.4.2019	At 1.4.2050	At 1.4.2100	At 1.4.2200
ILW	240,000	78,000	53,000	28,000
LLW	0.003	1.9	0.91	2.2
VLLW	0	0	0	0
Total	**240,000**	**78,000**	**53,000**	**28,000**

HUNTERSTON A (NDA)

Background

Hunterston A is a twin-reactor Magnox nuclear power station on the west coast of Scotland in Ayrshire. Hunterston A operated from 1964 to 1990. The station is now shut down and is being decommissioned.

Scenario

The decommissioning strategy for the Magnox sites is deferred dismantling of the reactors, comprising three phases – Defuelling and Care & Maintenance Preparations; Care & Maintenance; Final Site Clearance.

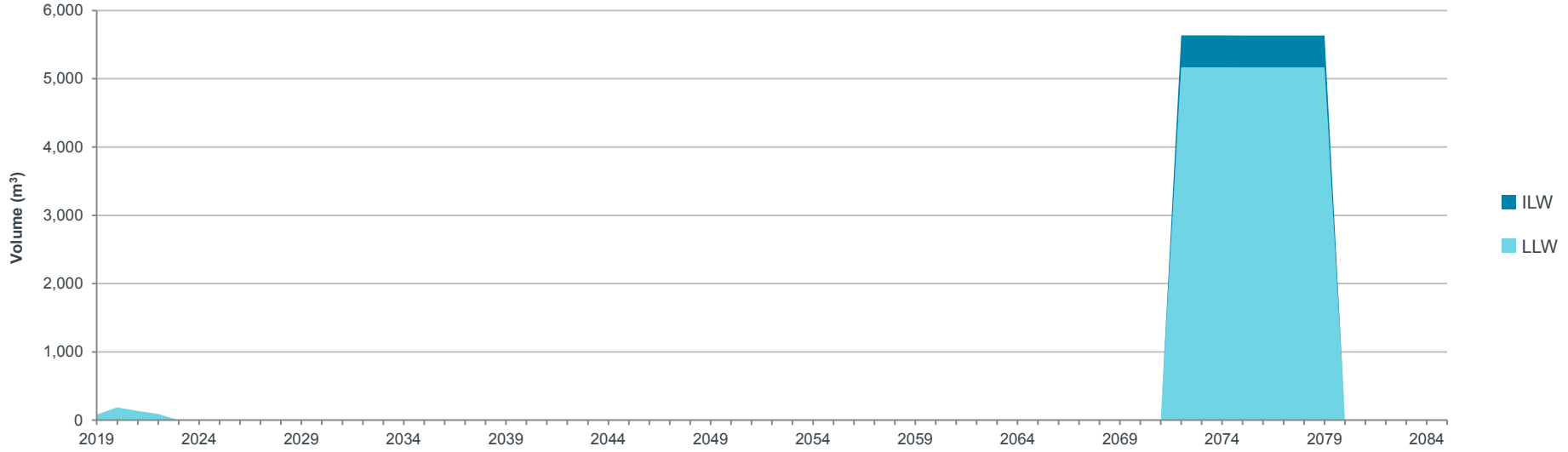
Hunterston A has been defuelled, and Care & Maintenance Preparations are scheduled to be completed in 2024. The period of Care & Maintenance extends from 2024 to 2075 and Final Site Clearance from 2071 to 2080.

Waste volume

Stocks of ILW and LLW are from legacy operations and on-going decommissioning. Future arisings are principally from final site clearance.

Waste type	Reported volume at 1 April 2019 (m^3)	Reported future arisings (m^3)	All wastes at 1 April 2019 and future arisings		
			Reported volume (m^3)	Packaged volume (m^3)	Number of packages
ILW	2,760	3,750	6,510	9,600	1,800
LLW	0.005	41,900	41,900	39,700	132
VLLW	0	0	0	0	0
Total	**2,760**	**45,700**	**48,400**	**49,300**	**1,940**

Profile of waste arisings



Radioactivity

Waste category	Total activity (TBq)			
	At 1.4.2019	At 1.4.2050	At 1.4.2100	At 1.4.2200
ILW	1,400	430	650	430
LLW	0.01	0.08	4.4	2.8
VLLW	0	0	0	0
Total	**1,400**	**430**	**650**	**430**

HUNTERSTON B (EDFE)

Background

Hunterston B is a twin-reactor nuclear power station on the west coast of Scotland in Ayrshire. Hunterston B has been operating since 1976.

Scenario

Hunterston B is scheduled to operate until 2023.

The decommissioning strategy for the AGR sites is 'Early Safestore', comprising three phases – Defuelling and Care & Maintenance Preparations; Care & Maintenance; Reactor Dismantling & Final Site Clearance. For Hunterston B the period of Defuelling and Care & Maintenance Preparations extends from 2023 to 2034, Care & Maintenance from 2034 to 2108 and Final Site Clearance from 2108 to 2118.

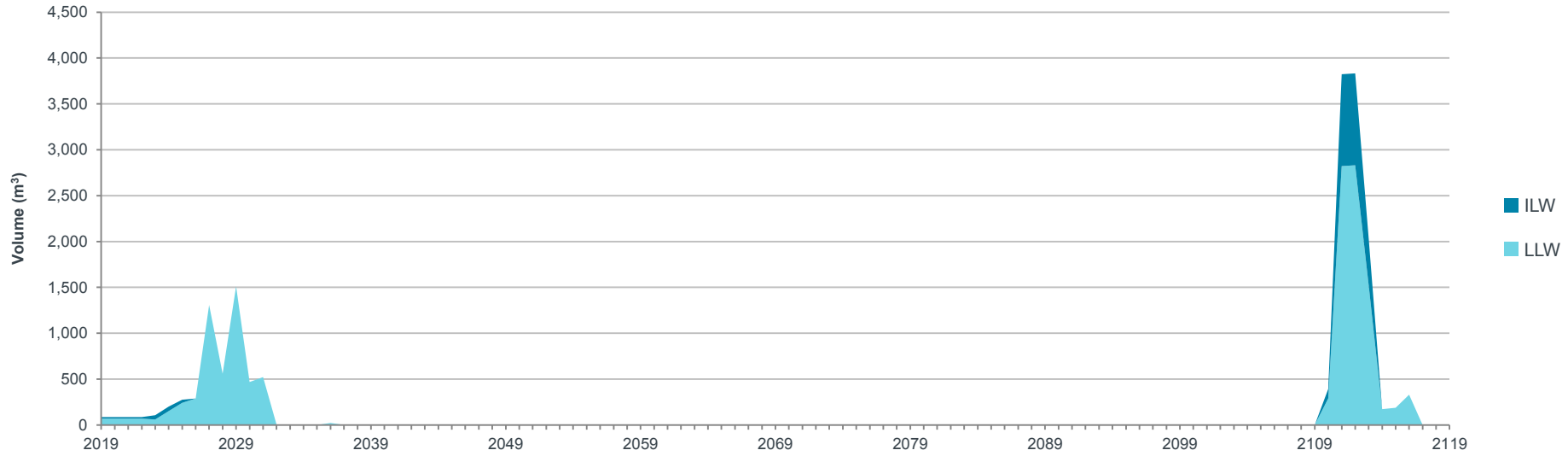
Waste volume

The majority of waste is LLW from future reactor decommissioning.

Waste type	Reported volume at 1 April 2019 (m^3)	Reported future arisings (m^3)	All wastes at 1 April 2019 and future arisings		
			Reported volume (m^3)	Packaged volume (m^3)	Number of packages
ILW[(1)]	984	2,810	3,800	6,540	640
LLW	73.3	13,700	13,700	8,520	437
VLLW	0	0	0	0	0
Total	**1,060**	**16,500**	**17,500**	**15,100**	**1,080**

(1) Some packaged ILW will be disposed of as LLW.

Profile of waste arisings



Radioactivity

Waste category	Total activity (TBq)			
	At 1.4.2019	At 1.4.2050	At 1.4.2100	At 1.4.2200
ILW	100,000	29,000	19,000	11,000
LLW	0.04	2.3	1.2	2.9
VLLW	0	0	0	0
Total	**100,000**	**29,000**	**19,000**	**11,000**

LLWR (NDA)

Background

The Low Level Waste Repository (LLWR) south of Sellafield in West Cumbria is the UK's national disposal site for low level wastes. It has operated since 1959 and accepts LLW from a wide variety of sources throughout the UK, including nuclear licensed sites, hospitals, research establishments and industrial concerns.

The site has also been used for storing plutonium contaminated materials (PCM), initially in former munitions storage magazines, subsequently in a custom built drum store.

Scenario

Operations at the site, which cover receipt, storage and disposal of LLW, are forecast to continue until 2135 and will generate small quantities of LLW.

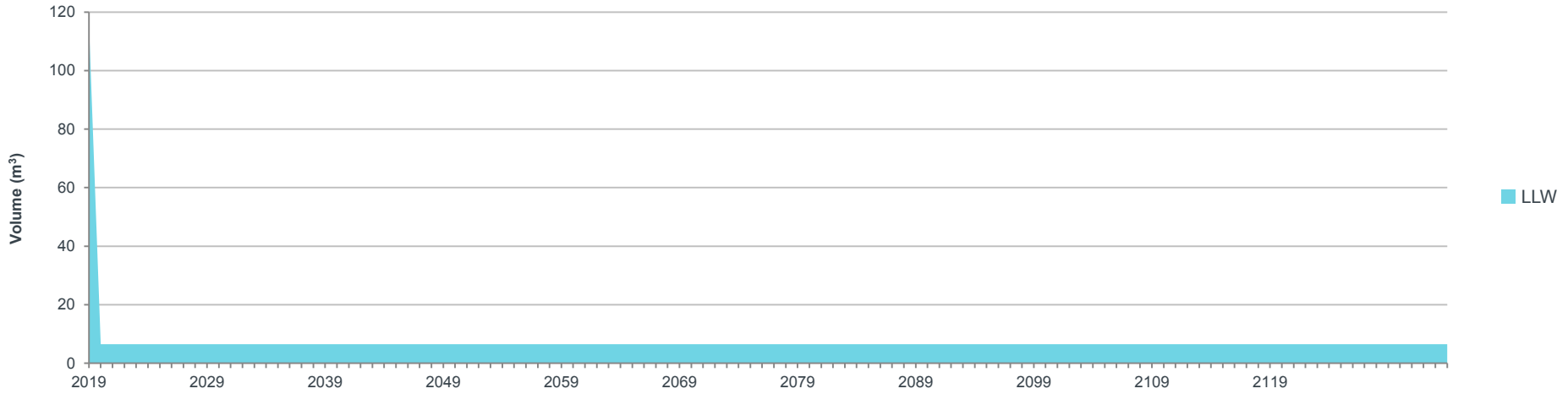
The decommissioning of the magazines is still ongoing, therefore, waste generation continues. Final decontamination activities are scheduled to be completed in 2019 dependent on the availability of Type B containers. All PCM maintenance and operations are due to be completed by 2023.

Waste volume

ILW consists of PCM and LLW is from PCM decommissioning wastes and site maintenance.

Waste type	Reported volume at 1 April 2019 (m^3)	Reported future arisings (m^3)	All wastes at 1 April 2019 and future arisings		
			Reported volume (m^3)	Packaged volume (m^3)	Number of packages
ILW	395	0	395	214	375
LLW	413	864	1,280	1,080	51
VLLW	17.4	8.6	26	26	Not quantified
Total	**825**	**873**	**1,700**	**1,320**	**426**

Profile of waste arisings



Radioactivity

Waste category	Total activity (TBq)			
	At 1.4.2019	At 1.4.2050	At 1.4.2100	At 1.4.2200
ILW	400	120	42	31
LLW	0.08	0.04	0.05	0.05
VLLW	<0.001	<0.001	<0.001	<0.001
Total	**400**	**120**	**42**	**31**

NRTE VULCAN (MOD)

Background

The Naval Reactor Test Establishment (NRTE) Vulcan at Dounreay in Caithness has carried out development work, acting as the test bed for prototype submarine nuclear reactors. Operations at Vulcan ceased in July 2015.

Scenario

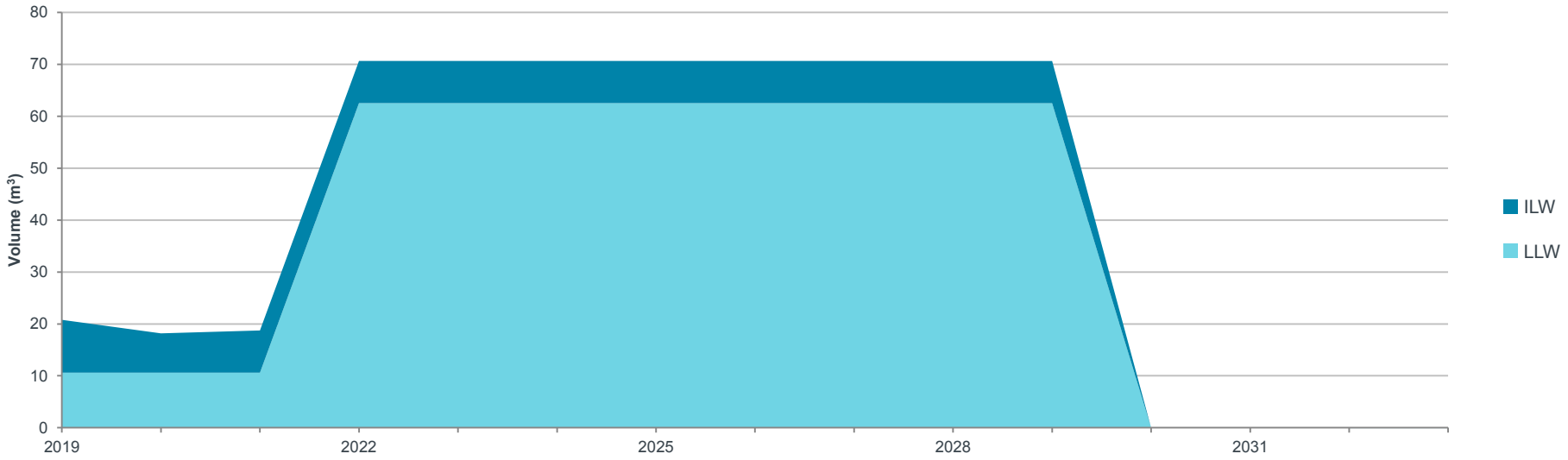
A post-operational phase is estimated to continue until about 2022. Post operational activities include defuelling of the reactor, clearance of fuel from the site, and preparations for decommissioning and disposal of the reactors and their component parts. Decommissioning is assumed to take place during the period from 2023 until 2035.

Waste volume

In addition to arisings from post-operations, the majority of waste in volume terms will be from steel reactor components from reactor decommissioning.

Waste type	Reported volume at 1 April 2019 (m^3)	Reported future arisings (m^3)	All wastes at 1 April 2019 and future arisings		
			Reported volume (m^3)	Packaged volume (m^3)	Number of packages
ILW	4.32	90.8	95.2	117	205
LLW	15.4	532	547	720	37
VLLW	0	0	0	0	0
Total	**19.7**	**623**	**642**	**837**	**242**

Profile of waste arisings



Radioactivity

Waste category	Total activity (TBq)			
	At 1.4.2019	At 1.4.2050	At 1.4.2100	At 1.4.2200
ILW	0.16	3.0	2.4	2.1
LLW	0.09	0.04	0.02	0.01
VLLW	0	0	0	0
Total	**0.24**	**3.0**	**2.4**	**2.2**

OLDBURY (NDA)

Background

Oldbury is a twin-reactor Magnox nuclear power station on the west coast of England in South Gloucestershire. Oldbury operated from 1967 to 2012. The station is now shut down and is being decommissioned.

Scenario

The decommissioning strategy for the Magnox sites is deferred dismantling of the reactors, comprising three phases – Defuelling and Care & Maintenance Preparations; Care & Maintenance; Final Site Clearance.

Oldbury has been defuelled, and Care & Maintenance Preparations are scheduled to be completed in 2027. The period of Care & Maintenance extends from 2027 to 2093 and Final Site Clearance from 2091 to 2103.

Waste volume

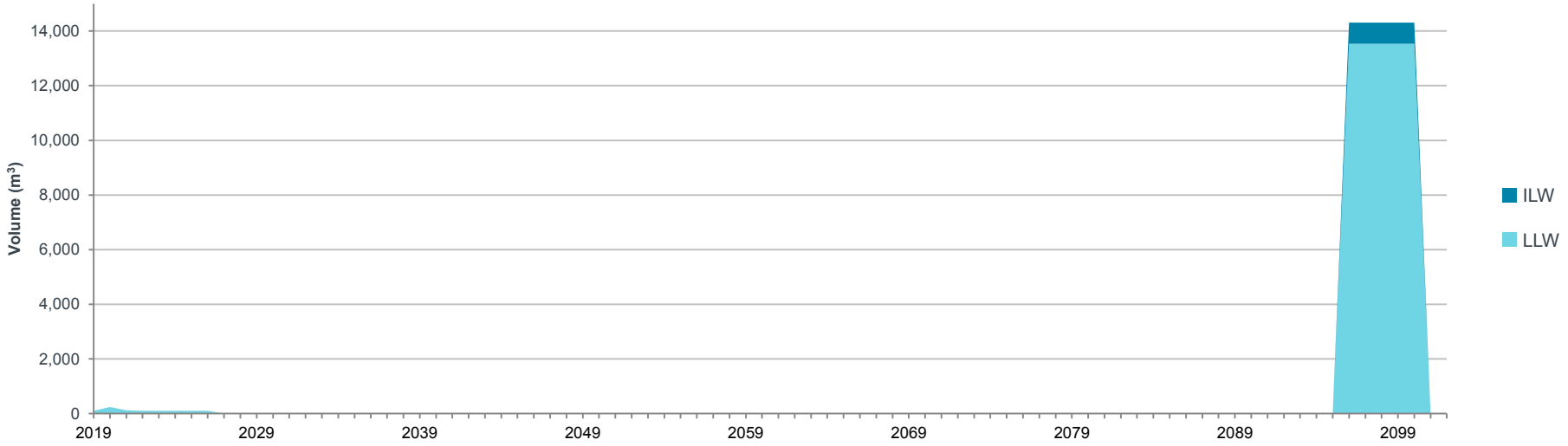
Stocks of ILW and LLW are from legacy operations and on-going care and maintenance preparations. Future arisings are principally from final site clearance.

Waste type	Reported volume at 1 April 2019 (m^3)	Reported future arisings (m^3)	All wastes at 1 April 2019 and future arisings		
			Reported volume (m^3)	Packaged volume (m^3)	Number of packages
ILW[1, 2]	651	3,900	4,550	5,750	330
LLW	177	68,700	68,900	66,000	194
VLLW	0	0	0	0	0
Total	**828**	**72,600**	**73,500**	**71,700**	**524**

(1) 0.85 m^3 reported volume (5.28 m^3 packaged volume; 4 packages) are stored at Berkeley.

(2) Some packaged ILW will be disposed of as LLW.

Profile of waste arisings



Radioactivity

Waste category	Total activity (TBq)			
	At 1.4.2019	At 1.4.2050	At 1.4.2100	At 1.4.2200
ILW	3,800	860	1,400	1,100
LLW	0.79	1.2	3.2	2.3
VLLW	0	0	0	0
Total	**3,800**	**860**	**1,400**	**1,100**

HMNB PORTSMOUTH (MOD)

Background

HMNB Portsmouth in Hampshire is involved in managing naval stores and de-equipping redundant naval surface vessels that can contain equipment and instrumentation incorporating radioactive materials. The base produces small quantities of radioactive waste from these activities.

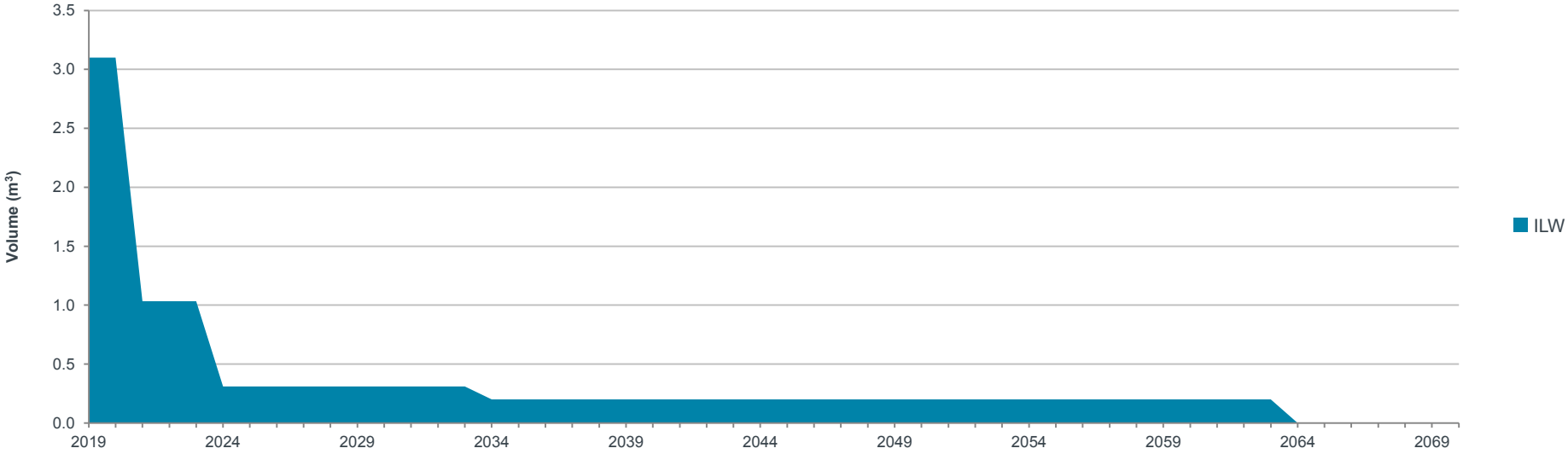
Scenario

Waste arisings do not occur at a constant rate and are difficult to determine as they are dependent on a number of factors such as equipment being declared as obsolete and legacy items being returned following site closures. The site is forecast to produce only small quantities of ILW, and volumes are estimated to 2063.

Waste volume

Waste type	Reported volume at 1 April 2019 (m^3)	Reported future arisings (m^3)	All wastes at 1 April 2019 and future arisings		
			Reported volume (m^3)	Packaged volume (m^3)	Number of packages
ILW	7.5	18.4	25.9	32.6	37
LLW	0	0	0	0	0
VLLW	0	0	0	0	0
Total	**7.5**	**18.4**	**25.9**	**32.6**	**37**

Profile of waste arisings



Radioactivity

Waste category	Total activity (TBq)			
	At 1.4.2019	At 1.4.2050	At 1.4.2100	At 1.4.2200
ILW	140	36	7.9	2.5
LLW	0	0	0	0
VLLW	0	0	0	0
Total	**140**	**36**	**7.9**	**2.5**

ROSYTH & DEVONPORT – DECOMMISSIONED SUBMARINES (MOD)

Background

When nuclear powered submarines leave naval service the nuclear fuel is removed, equipment taken off and the vessel prepared for storage afloat. This process is called decommissioning, but in the naval sense, and is distinct from the decommissioning of nuclear power stations. After naval decommissioning, radioactivity remains contained within the reactor compartment structures. To date 20 nuclear-powered submarines have left naval service and 11 have been defuelled. They are being stored afloat at Rosyth and Devonport dockyards.

Scenario

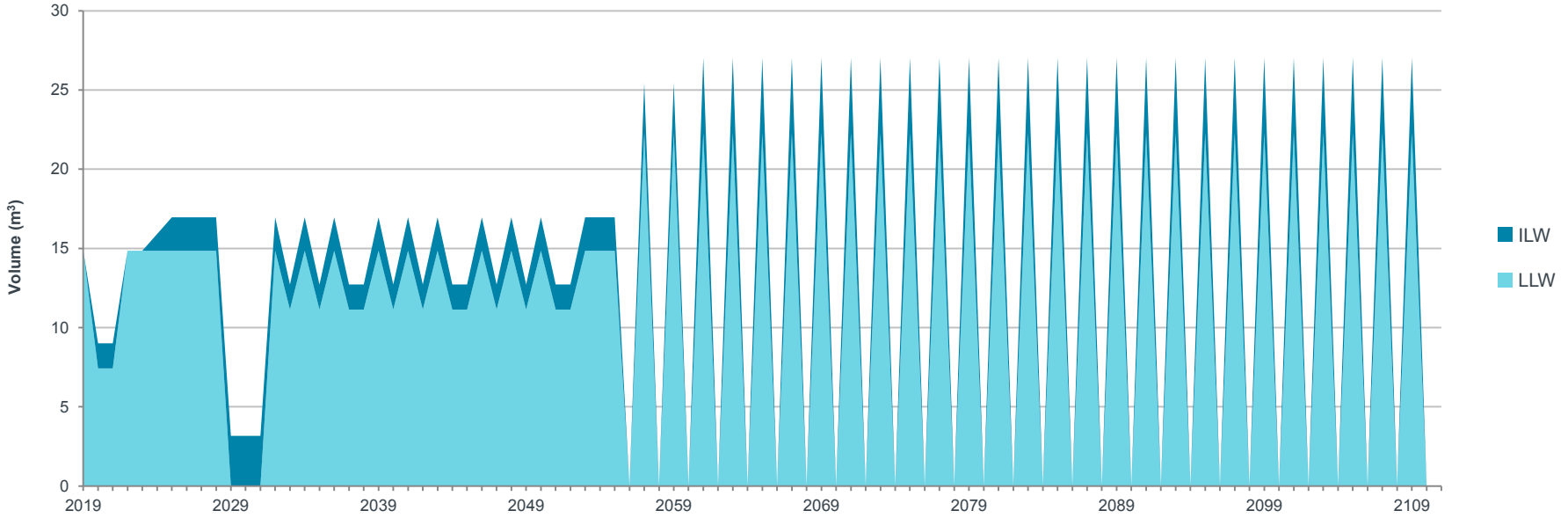
Future arisings of submarine decommissioning wastes assume a continuing naval nuclear propulsion programme with a fleet of up to 7 SSNs (nuclear powered, conventionally armed submarines) and 4 SSBNs (nuclear powered submarines with ballistic nuclear weapons). Submarines are assumed to have a hull life of between 25 and 30 years and to be stored afloat for 30 years before being dismantled and the waste processed. Future arisings of submarine decommissioning wastes are forecast up to 2110.

MOD's Submarine Dismantling Project (SDP) aims to deliver a safe and secure solution for dismantling 27 of the UK's defuelled nuclear-powered submarines, comprising all 20 currently stored afloat and a further eight yet to leave service (up to and including the Vanguard class). The process for selecting an interim ILW storage site, pending disposal in the planned GDF, may affect the current 30-year, afloat storage policy, which in turn may affect the rate at which the waste is processed. The 2019 UK Inventory includes wastes for 27 submarines currently in scope of the SDP programme.

Waste volume

Waste type	Reported volume at 1 April 2019 (m^3)	Reported future arisings (m^3)	All wastes at 1 April 2019 and future arisings		
			Reported volume (m^3)	Packaged volume (m^3)	Number of packages
ILW	0	191	191	2,470	684
LLW	0	1,050	1,050	54.4	5
VLLW	0	0	0	0	0
Total	**0**	**1,240**	**1,240**	**2,520**	**689**

Profile of waste arisings



Radioactivity

Waste category	Total activity (TBq)			
	At 1.4.2019	At 1.4.2050	At 1.4.2100	At 1.4.2200
ILW	0	1,700	4,300	2,500
LLW	0	1.2	2.5	1.4
VLLW	0	0	0	0
Total	**0**	**1,700**	**4,300**	**2,500**

ROSYTH ROYAL DOCKYARD (MOD)

Background

The Rosyth Royal Dockyard near Dunfermline in Fife used to carry out refitting and refuelling of the nuclear submarine fleet. These activities at Rosyth ceased in 2003. The site is undergoing progressive decommissioning.

Scenario

The first stage of Rosyth site decommissioning was completed in 2010, dealing with nuclear facilities associated with the previous submarine refitting activities.

The first stage of initial submarine dismantling (small item LLW removal) was completed on SWIFTSURE in August 2018 and the submarine returned to afloat storage. RESOLUTION was docked in November 2018 with initial dismantling to commence in early 2019. Submarine dismantling activities at Rosyth are forecast to continue until the 2030s, after which the nuclear facilities used to support submarine dismantling will be decommissioned.

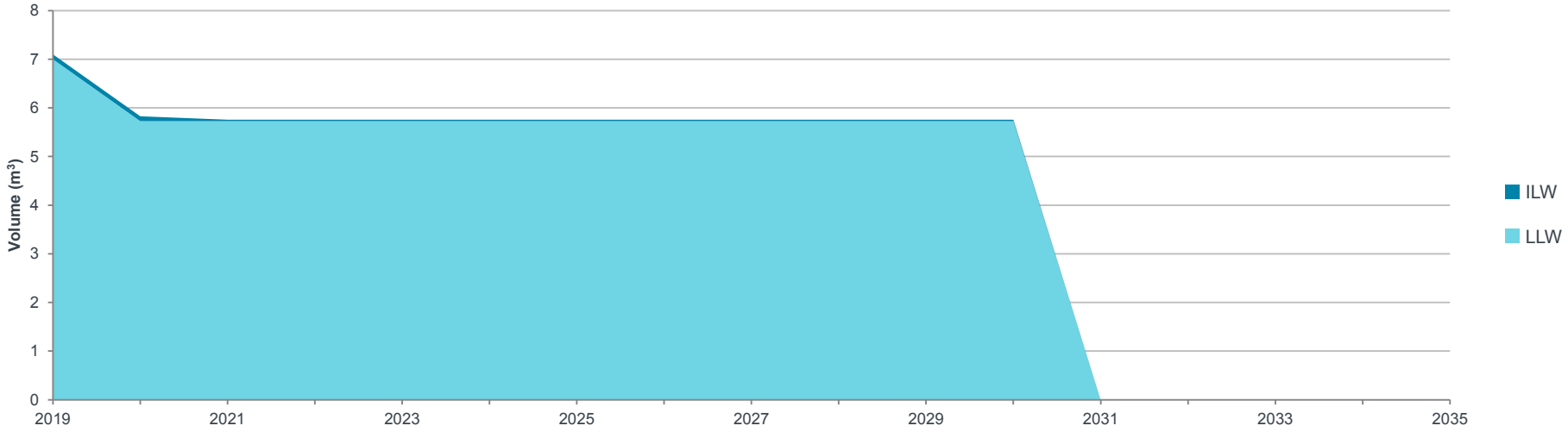
Waste volume

Small volumes of ILW and LLW are produced at Rosyth.

Waste type	Reported volume at 1 April 2019 (m^3)	Reported future arisings (m^3)	All wastes at 1 April 2019 and future arisings		
			Reported volume (m^3)	Packaged volume (m^3)	Number of packages
ILW[(1)]	22.4	0.5	22.9	106	6
LLW	0	70	70	26.1	0
VLLW	0	0	0	0	0
Total	**22.4**	**70.5**	**92.9**	**132**	**6**

(1) Some packaged ILW will be disposed of as LLW.

Profile of waste arisings



Radioactivity

Waste category	Total activity (TBq)			
	At 1.4.2019	At 1.4.2050	At 1.4.2100	At 1.4.2200
ILW	0.36	0.13	0.11	0.08
LLW	0	0.005	0.003	0.002
VLLW	0	0	0	0
Total	**0.36**	**0.14**	**0.11**	**0.08**

SELLAFIELD (NDA)

Background

Sellafield in West Cumbria was the birthplace of the UK nuclear industry. Since the 1940s the site has been at the forefront of nuclear developments, initially in support of the UK nuclear weapons programme followed by advances in the early generations of nuclear reactors and the development of spent fuel reprocessing technology. As a result of these activities and subsequent investment in waste treatment plants and stores, there are now about 300 buildings on the site with nuclear inventories.

The Sellafield site incorporates the historically separate licensed sites of Windscale and Calder Hall. The Windscale site includes the Windscale Piles, the early spent fuel reprocessing facilities, the Windscale Advanced Gas-cooled Reactor (WAGR) and extensive PIE facilities. The Calder Hall site is the location of the first Magnox nuclear power station, which ceased power generation in 2003.

Scenario

In November 2018, the Thermal Oxide Reprocessing Plant (Thorp) completed its final shear of spent fuel. Part of the plant will continue to receive spent AGR fuel from EDF Energy and this will be held in long-term storage in underwater ponds within the existing plant. It is expected that the fuel will eventually be conditioned and consigned to the planned Geological Disposal Facility from around 2075. The rest of the plant is now commencing Post Operational Clean Out (POCO). The Magnox Reprocessing plant will continue to operate until the end of 2020.

Vitrified HLW from reprocessing overseas spent fuel will continue to be repatriated to the country of origin; the bulk of the programme is expected to be completed by around 2025.

The site will continue to focus on high hazard reduction and environmental remediation, including waste retrieval and treatment, POCO and the decommissioning of redundant facilities. Sellafield is exploring options for optimising these processes; therefore the current waste volume estimates will be subject to future revision as plans are developed.

The main group of legacy plants at Sellafield, known as Legacy Ponds & Silos (LP&S), represent the highest hazard and the highest decommissioning priority across the NDA estate. They comprise:

- **Pile Fuel Storage Pond** – an open-air pond used for underwater storage of a range of early reactor development fuels
- **First Generation Magnox Storage Pond** - an open-air pond used to store Magnox fuel before reprocessing.

- **Magnox Swarf Storage Silo** – a series of covered compartments used mainly to store Magnox fuel cladding removed from the spent fuel rods before reprocessing.
- **Pile Fuel Cladding Silo** – covered compartments used to store Pile reactor fuel cladding removed from the spent fuel before reprocessing.

Good progress is now being made in the retrieval of fuel, sludge and solid waste from the legacy ponds, and retrievals of waste from the silo facilities are expected to begin during 2019.

The other nuclear facilities at Sellafield will be progressively decommissioned as they reach the end of their operating lives. Depending on the role of the plant there are a number of decommissioning stages to go through. All site decommissioning activities will be largely completed by 2090 with all buildings/waste stores (except product stores and supporting ancillary buildings) assumed to be demolished by 2120.

Waste volume

Most waste is LLW and VLLW from decommissioning the site's many nuclear facilities.

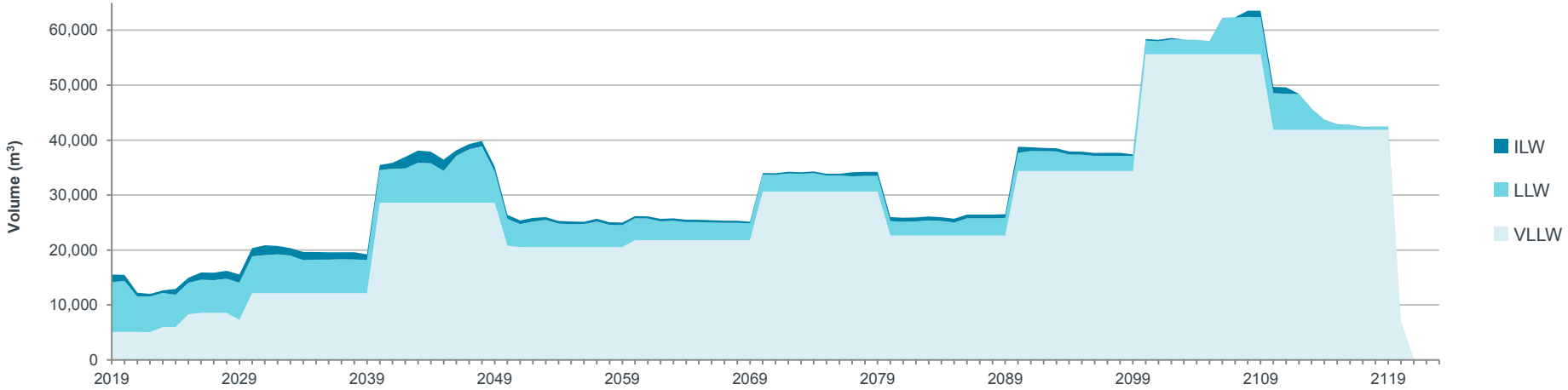
Waste type	Reported volume at 1 April 2019 (m^3)	Reported future arisings (m^3)	All wastes at 1 April 2019 and future arisings		
			Reported volume (m^3)	Packaged volume (m^3)	Number of packages
HLW	2,150	See note 1	1,390	1,500	7,660
ILW(2)	76,100	72,300	148,000	350,000	250,000
LLW(3)	3,010	450,000	453,000	257,000	4,620
VLLW	40	2,760,000	2,760,000	2,630,000	Not quantified
Total	**81,300**	**3,280,000**	**3,370,000**	**3,240,000**	**262,000**

(1) *After 1.4.2019 there is a net decrease in HLW volume because accumulated Highly Active Liquor (HAL) is being conditioned, which reduces its volume, and also because vitrified HLW is being exported to overseas customers.*

(2) *Some packaged ILW will be disposed of as LLW.*

(3) *In addition there is 390 m^3 reported volume (93.6 m^3 packaged volume) from Magnox fuel flasks and flatrols and 446 m^3 reported volume (0 m^3 packaged volume) from AGR fuel flasks and flatrols stored at Sellafield.*

Profile of waste arisings



Radioactivity

Waste Category	Total activity (TBq)			
	At 1.4.2019	At 1.4.2050	At 1.4.2100	At 1.4.2200
HLW	80,000,000	37,000,000	12,000,000	1,500,000
ILW	2,500,000	1,400,000	690,000	290,000
LLW	1.3	32	20	13
VLLW	<0.001	3.7	11	13
Total	**82,000,000**	**39,000,000**	**13,000,000**	**1,800,000**

SIZEWELL A (NDA)

Background

Sizewell A is a twin-reactor Magnox nuclear power station in Suffolk on the east coast of England. Sizewell A operated from 1966 to 2006. The station is now shut down and is being decommissioned.

Scenario

The decommissioning strategy for the Magnox sites is deferred dismantling of the reactors, comprising three phases – Defuelling and Care & Maintenance Preparations; Care & Maintenance; Final Site Clearance.

Sizewell A has been defuelled, and Care & Maintenance Preparations are scheduled to be completed in 2027. The period of Care & Maintenance extends from 2027 to 2092 and Final Site Clearance from 2088 to 2100.

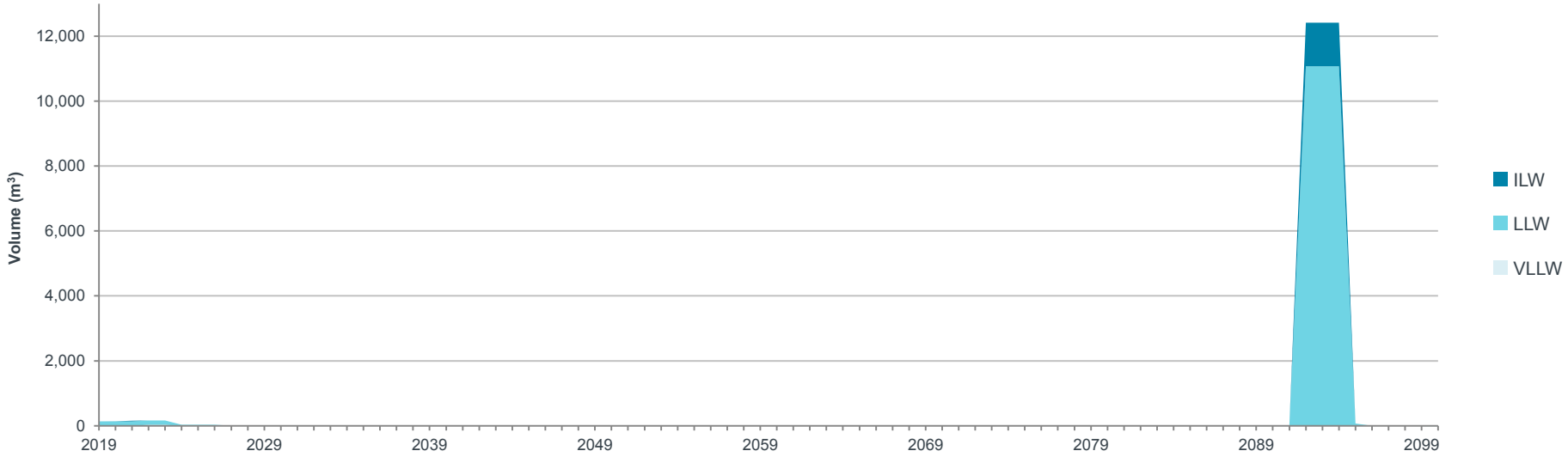
Waste volume

Stocks of ILW and LLW are from legacy operations and on-going decommissioning. Future arisings are principally from final site clearance.

Waste type	Reported volume at 1 April 2019 (m^3)	Reported future arisings (m^3)	All wastes at 1 April 2019 and future arisings		
			Reported volume (m^3)	Packaged volume (m^3)	Number of packages
ILW[(1)]	548	4,050	4,600	5,800	302
LLW	485	34,200	34,700	31,800	98
VLLW	0	56	56	56	Not quantified
Total	**1,030**	**38,300**	**39,300**	**37,600**	**400**

(1) Some packaged ILW will be disposed of as LLW.

Profile of waste arisings



Radioactivity

Waste category	Total activity (TBq)			
	At 1.4.2019	At 1.4.2050	At 1.4.2100	At 1.4.2200
ILW	56	37	660	550
LLW	1.6	0.79	6.2	3.1
VLLW	0	<0.001	<0.001	<0.001
Total	**57**	**38**	**660**	**550**

SIZEWELL B (EDFE)

Background

Sizewell B is a PWR nuclear power station on the east coast of England in Suffolk. The Sizewell B reactor has been operating since 1995.

Scenario

Sizewell B is scheduled to operate until 2035.

The decommissioning strategy for Sizewell B is 'Early Site Clearance', with reactor dismantling deferred for a period of 10 years after station shutdown. All decommissioning work on the site is planned to be completed 20 years after station shutdown. This strategy has been adopted following a review of international best practice for PWR decommissioning.

The spent fuel from the reactor will be stored at the site until a disposal route is available, although this does not foreclose potential alternative options.

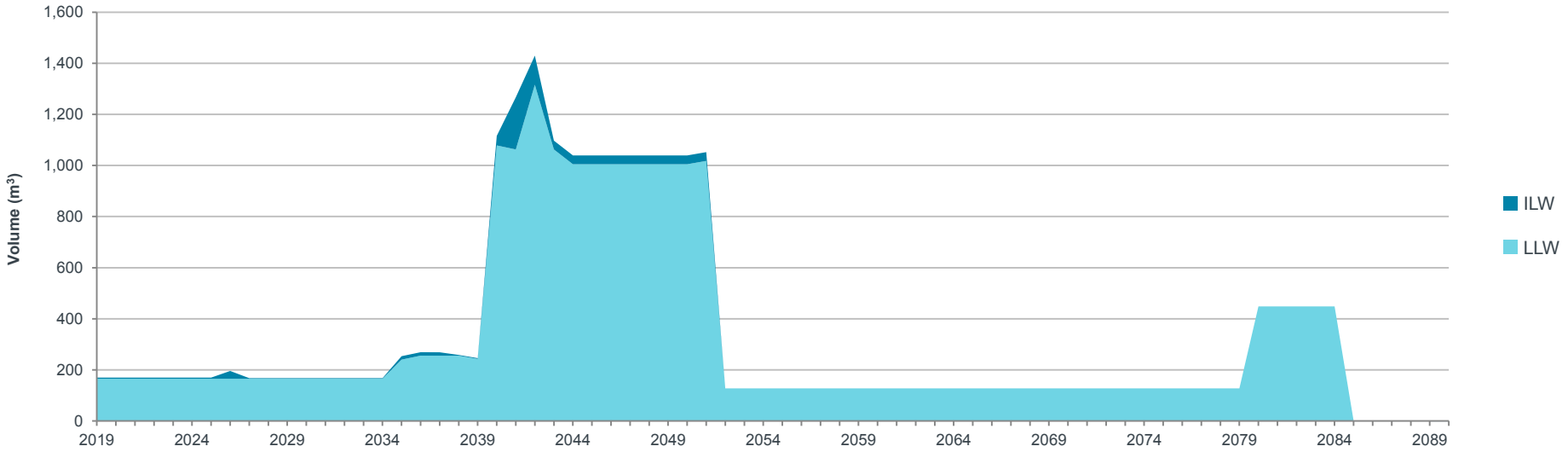
Waste volume

The majority of waste is LLW from future reactor decommissioning. This includes redundant shield and transfer casks that arise after the closure of the spent fuel dry store.

Waste type	Reported volume at 1 April 2019 (m^3)	Reported future arisings (m^3)	All wastes at 1 April 2019 and future arisings		
			Reported volume (m^3)	Packaged volume (m^3)	Number of packages
ILW[(1)]	73	793	866	2,020	1,770
LLW	162	22,300	22,400	15,100	772
VLLW	0	0	0	0	0
Total	**235**	**23,100**	**23,300**	**17,100**	**2,540**

(1) Some packaged ILW will be disposed of as LLW.

Profile of waste arisings



Radioactivity

Waste category	Total activity (TBq)			
	At 1.4.2019	At 1.4.2050	At 1.4.2100	At 1.4.2200
ILW	6,300	55,000	15,000	7,100
LLW	0.24	87	30	15
VLLW	0	0	0	0
Total	**6,300**	**55,000**	**15,000**	**7,200**

SPRINGFIELDS (NDA)

Background

The Springfields site, near Preston in Lancashire, manufactures nuclear fuel products for the UK's nuclear power stations and for international customers. Operations include the fabrication of oxide fuels for AGRs and intermediate fuel products such as powders, granules and pellets.

Scenario

Future operations at Springfields will depend on commercial strategies and the outlook for the worldwide nuclear power industry. Redundant plants and buildings are being demolished, and there is an ongoing programme to recover the site's historic legacy of natural and enriched uranic residues. Fuel fabrication and uranic residues recovery operations involve bulk chemical and metallurgical processing that produce low activity radioactive waste.

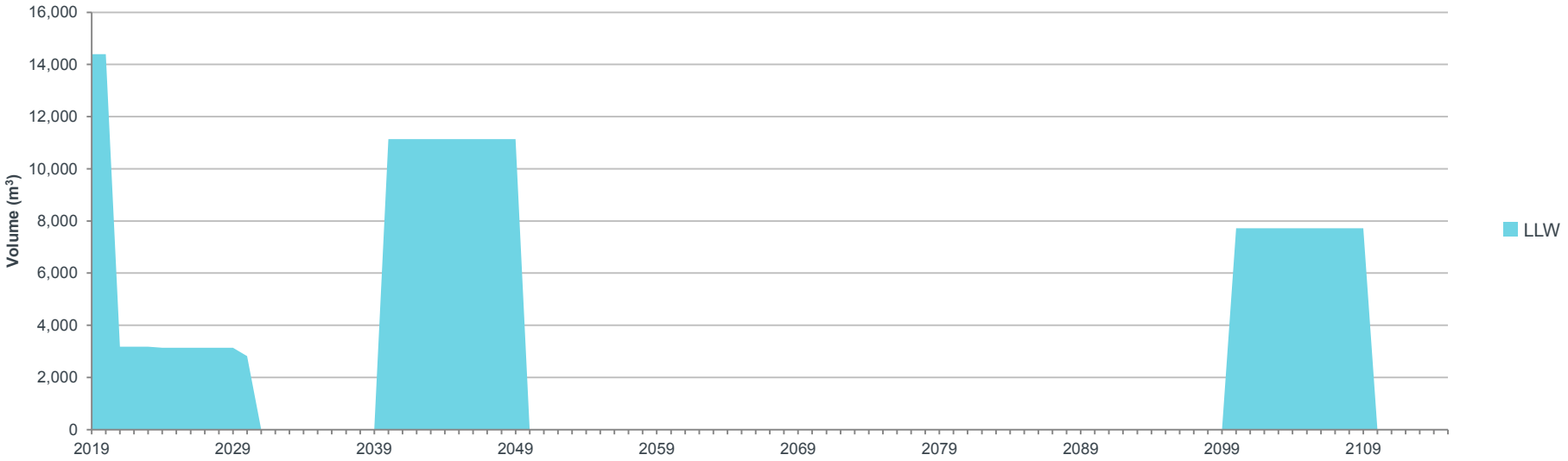
The production and delivery of natural uranium hexafluoride (UF_6 / hex) stopped in 2014. While the Hex Plant is not currently in use, Westinghouse is pursuing future UF_6 conversion contracts. Oxide manufacturing is forecast to continue until 2028, supplying AGR fuel in line with the current planned closure dates of the AGR power stations and uranium dioxide products for UK and overseas customers. Current annual demand capacity for AGR fuel is 215 tU and for intermediate oxide product is between 200 and 400 tU. Decommissioning of residues facilities is now expected to be completed by 2020. Decommissioning of the Hex Plant and Oxide Fuels Complex has a provisional date of 2045. Final site clean-up and remediation has a provisional date of about 2100.

Waste volume

Waste type	Reported volume at 1 April 2019 (m^3)	Reported future arisings (m^3)	All wastes at 1 April 2019 and future arisings		
			Reported volume (m^3)	Packaged volume (m^3)	Number of packages
ILW	0	0	0	0	0
LLW (1)	30	249,000	249,000	239,000	67
VLLW	0	0	0	0	0
Total	**30**	**249,000**	**249,000**	**239,000**	**67**

(1) The site generates low activity wastes that have a range of activity concentrations spanning the VLLW/LLW boundary. The wastes are not separated into the two types as they can be routinely disposed of to the landfill site at Clifton Marsh, which has a permit to accept radioactive wastes up to 200 Bq/g.

Profile of waste arisings



Radioactivity

Waste category	Total activity (TBq)			
	At 1.4.2019	At 1.4.2050	At 1.4.2100	At 1.4.2200
ILW	0	0	0	0
LLW	NE	NE	NE	NE
VLLW	0	0	0	0
Total	**NE**	**NE**	**NE**	**NE**

TORNESS (EDFE)

Background

Torness is a twin-reactor AGR nuclear power station on the east coast of Scotland in East Lothian. Torness has been operating since 1988.

Scenario

Torness is scheduled to operate until 2030.

The decommissioning strategy for the AGR sites is Early Safestore, comprising three phases – Defuelling and Care & Maintenance Preparations; Care & Maintenance; Reactor Dismantling & Final Site Clearance. For Torness the period of Defuelling and Care & Maintenance Preparations extends from 2030 to 2044, Care & Maintenance from 2044 to 2115 and Final Site Clearance from 2115 to 2125.

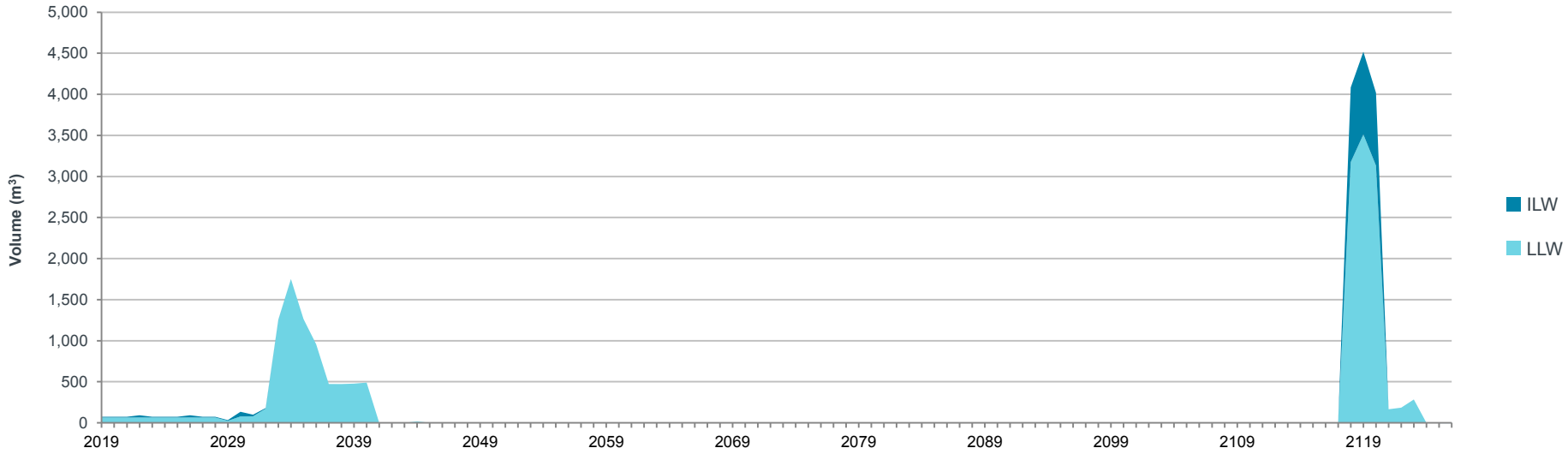
Waste volume

The majority of waste is LLW from future reactor decommissioning.

Waste type	Reported volume at 1 April 2019 (m^3)	Reported future arisings (m^3)	All wastes at 1 April 2019 and future arisings		
			Reported volume (m^3)	Packaged volume (m^3)	Number of packages
ILW[(1)]	262	3,020	3,290	5,340	430
LLW	19.1	18,700	18,700	11,700	600
VLLW	0	0	0	0	0
Total	**281**	**21,700**	**22,000**	**17,100**	**1,030**

(1) Some packaged ILW will be disposed of as LLW.

Profile of waste arisings



Radioactivity

Waste category	Total activity (TBq)			
	At 1.4.2019	At 1.4.2050	At 1.4.2100	At 1.4.2200
ILW	230,000	41,000	27,000	15,000
LLW	0.005	0.26	0.09	0.84
VLLW	0	0	0	0
Total	**230,000**	**41,000**	**27,000**	**15,000**

TRAWSFYNYDD (NDA)

Background

Trawsfynydd is a twin-reactor Magnox nuclear power station in Gwynedd, Wales. Trawsfynydd operated from 1965 to 1993. The station is now shut down and is being decommissioned.

Scenario

The decommissioning strategy for the Magnox sites is deferred dismantling of the reactors, comprising three phases – Defuelling and Care & Maintenance Preparations; Care & Maintenance; Final Site Clearance.

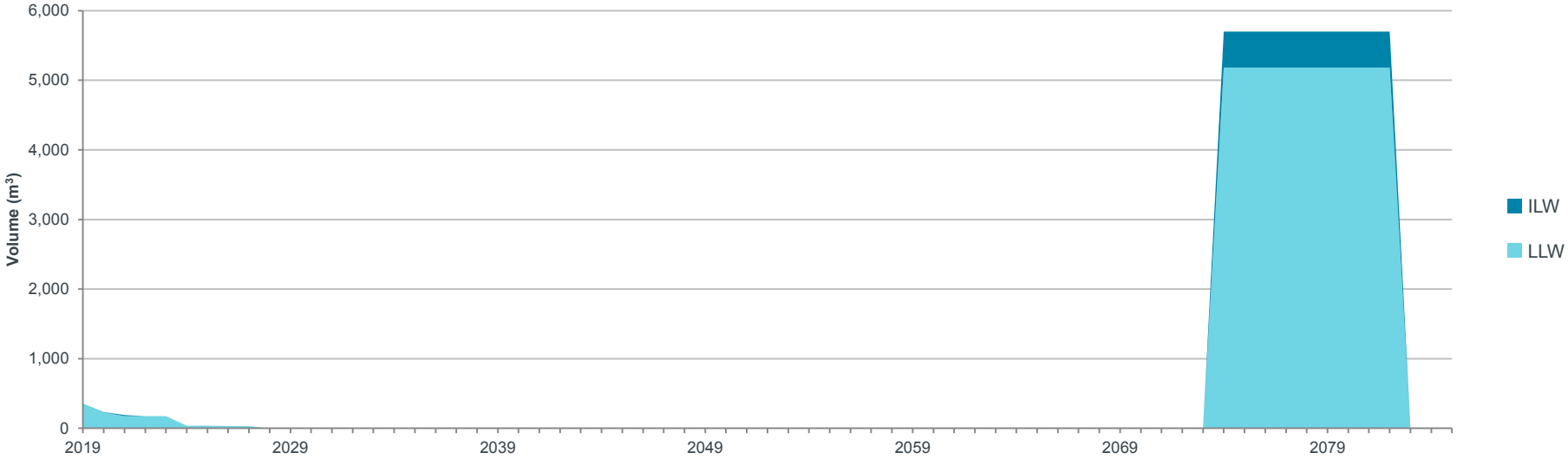
Trawsfynydd has been defuelled, and Care & Maintenance Preparations are scheduled to be completed in 2029. The period of Care & Maintenance extends from 2029 to 2077 and Final Site Clearance from 2074 to 2083.

Waste volume

Stocks of ILW and LLW are from legacy operations and on-going care and maintenance preparations. Future arisings are principally from final site clearance.

Waste type	Reported volume at 1 April 2019 (m^3)	Reported future arisings (m^3)	All wastes at 1 April 2019 and future arisings		
			Reported volume (m^3)	Packaged volume (m^3)	Number of packages
ILW	2,170	4,670	6,840	13,400	953
LLW	86.0	48,000	48,100	80,100	3,650
VLLW	0	0	0	0	0
Total	**2,250**	**52,700**	**54,900**	**93,500**	**4,600**

Profile of waste arisings



Radioactivity

Waste category	Total activity (TBq)			
	At 1.4.2019	At 1.4.2050	At 1.4.2100	At 1.4.2200
ILW	3,200	1,400	1,700	900
LLW	0.06	0.83	20	8.8
VLLW	0	0	0	0
Total	**3,200**	**1,400**	**1,700**	**910**

WINFRITH (NDA)

Background

At Winfrith in Dorset research and development work into different reactor types was carried out. All facilities, including a number of research, experimental and prototype reactors, have closed down and have either already been decommissioned or are currently being decommissioned.

Scenario

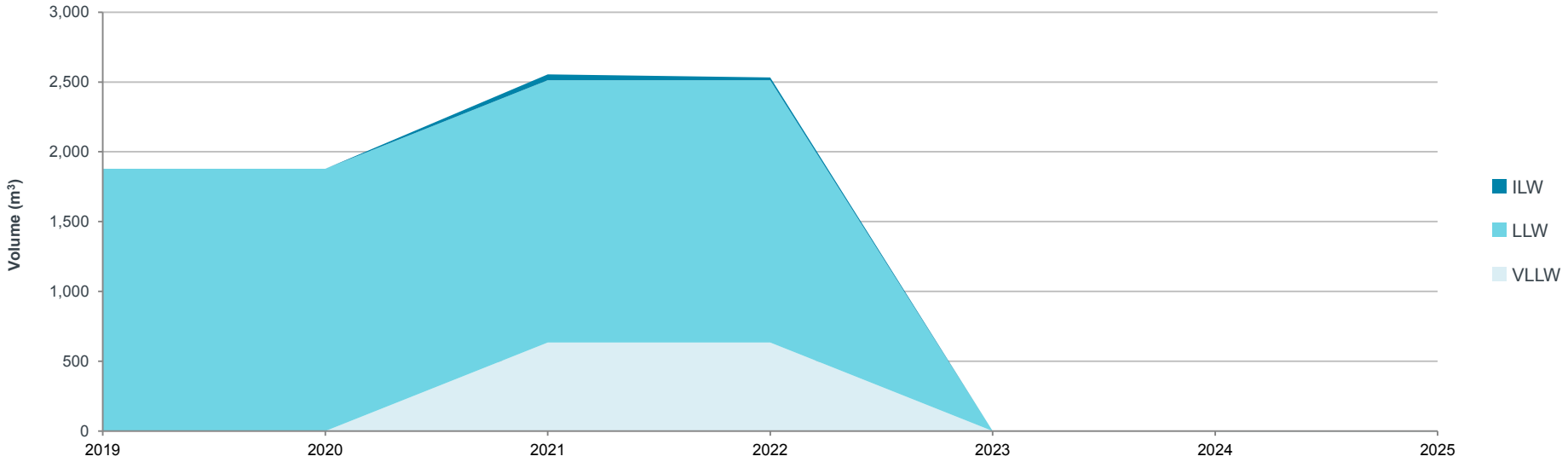
There are two remaining shutdown reactors on the site: the Steam Generating Heavy Water Reactor (SGHWR) and the Dragon high temperature gas-cooled reactor. Most of the secondary facilities associated with these buildings have been decommissioned, and the reactors have been in a Care & Maintenance regime for a number of years. In 2011 limited decommissioning activities recommenced on Dragon, and final decommissioning of both reactors commenced in 2014 and is scheduled to be complete by 2023.

Waste volume

Waste stocks are from legacy operations and decommissioning. Future arisings are from decommissioning. VLLW consists of soil and rubble from reactor decommissioning and land remediation.

Waste type	Reported volume at 1 April 2019 (m^3)	Reported future arisings (m^3)	All wastes at 1 April 2019 and future arisings		
			Reported volume (m^3)	Packaged volume (m^3)	Number of packages
ILW	4.07	62	66.1	1,400	220
LLW	836	7,510	8,350	10,000	235
VLLW	0	1,270	1,270	1,270	Not quantified
Total	**840**	**8,840**	**9,680**	**12,700**	**455**

Profile of waste arisings



Radioactivity

Waste category	Total activity (TBq)			
	At 1.4.2019	At 1.4.2050	At 1.4.2100	At 1.4.2200
ILW	89	810	500	250
LLW	13	7.9	3.5	1.3
VLLW	0	0.002	<0.001	<0.001
Total	**100**	**820**	**500**	**260**

WYLFA (NDA)

Background

Wylfa is a twin-reactor Magnox nuclear power station on the coast of Wales in Anglesey. Wylfa operated from 1971 to 2015. The station is now shut down and is being decommissioned.

Scenario

The decommissioning strategy for the Magnox sites is deferred dismantling of the reactors, comprising three phases – Defuelling and Care & Maintenance Preparations; Care & Maintenance; Final Site Clearance.

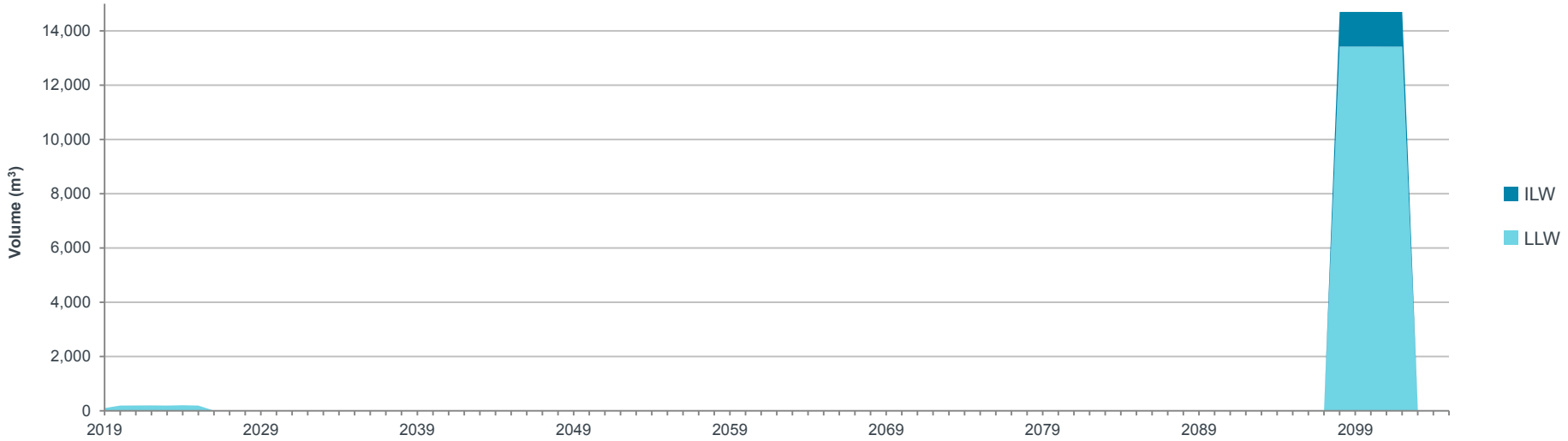
Wylfa is being defuelled, and Care & Maintenance Preparations are scheduled to be completed in 2026. The period of Care & Maintenance extends from 2026 to 2101 and Final Site Clearance from 2097 to 2106.

Waste volume

Stocks of ILW and LLW are from legacy operations and on-going care and maintenance preparations. Future arisings are principally from final site clearance.

Waste type	Reported volume at 1 April 2019 (m^3)	Reported future arisings (m^3)	All wastes at 1 April 2019 and future arisings		
			Reported volume (m^3)	Packaged volume (m^3)	Number of packages
ILW	849	6,390	7,240	9,020	460
LLW	123	68,500	68,600	63,000	66
VLLW	0	0	0	0	0
Total	**972**	**74,900**	**75,800**	**72,100**	**526**

Profile of waste arisings



Radioactivity

Waste category	Total activity (TBq)			
	At 1.4.2019	At 1.4.2050	At 1.4.2100	At 1.4.2200
ILW	28,000	3,100	3,000	2,900
LLW	0.13	1.2	2.7	2.3
VLLW	0	0	0	0
Total	**28,000**	**3,100**	**3,000**	**2,900**

MINOR WASTE PRODUCERS (various sites)

Background

Many so-called 'small users' of radioactive substances (such as hospitals, industrial, educational and research establishments) produce small quantities of radioactive waste. In the Inventory these establishments are collectively referred to as '*Minor waste producers*'.

Scenario

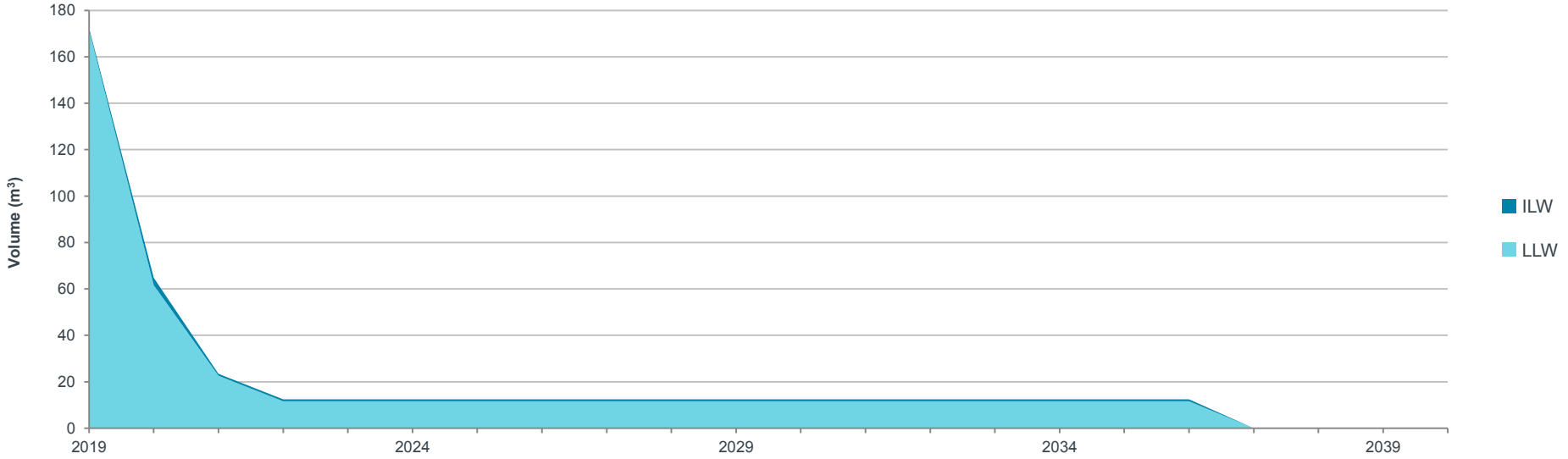
Rates of waste arising are difficult to predict. In recent years annual arisings of ILW have fallen and are now at very low levels. Future arisings are expected to be minimal. No estimate has been made of future LLW consignments to the LLWR; there have been no recent direct consignments from minor producers and no estimate is available of indirect consignments via the waste service supply chain. Imperial College operated a small, low power research reactor, known as CONSORT, at Silwood Park, Ascot from 1965 to 2012, providing teaching and research facilities in fields of nuclear science. The reactor is now being decommissioned; and the fuel, control rods and core support structure removed and transported to Sellafield. The decommissioning programme anticipates all physical structures being removed by the end of 2020 and site delicensing in 2021.

The Science and Technology Facilities Council (under UK Research and Innovation) operates the Rutherford Appleton Laboratory at Harwell in Oxfordshire. The Laboratory provides facilities including the ISIS pulsed neutron and muon source that is used in research areas ranging from clean energy and the environment to pharmaceuticals, nanotechnology and information technology. Radioactive wastes are generated from the activation of components that fail or become redundant. Future waste arisings will depend on the continued funding of the site.

Waste volume

Waste type	Reported volume at 1 April 2019 (m^3)	Reported future arisings (m^3)	All wastes at 1 April 2019 and future arisings		
			Reported volume (m^3)	Packaged volume (m^3)	Number of packages
ILW	22.4	17.2	39.6	48.0	60
LLW	772	430	1,200	1,230	29
VLLW	33	26.5	59.5	58.2	Not quantified
Total	**827**	**474**	**1,300**	**1,340**	**89**

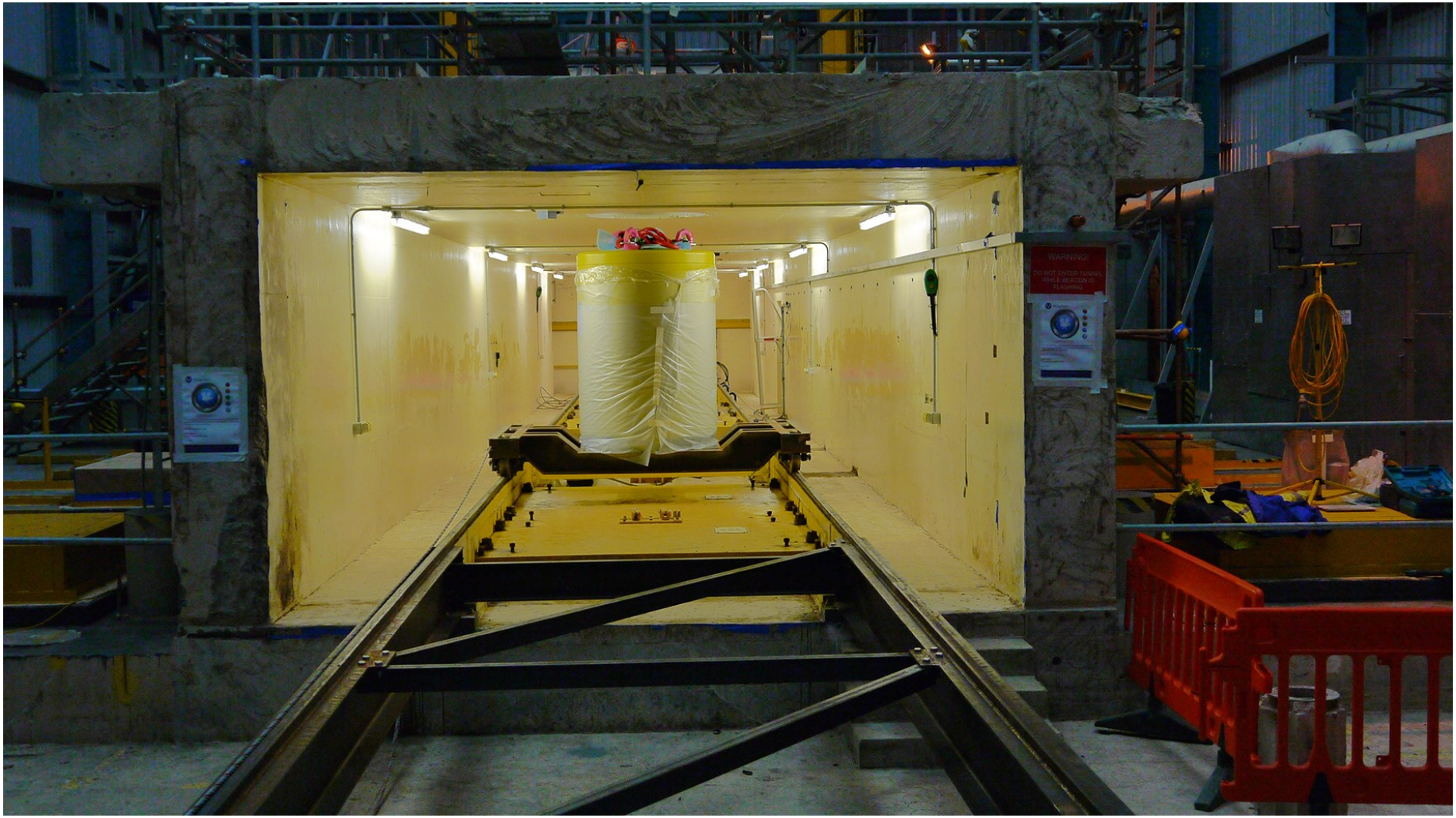
Profile of waste arisings



Radioactivity

Waste category	Total activity (TBq)			
	At 1.4.2019	At 1.4.2050	At 1.4.2100	At 1.4.2200
ILW	5,000	2,400	500	43
LLW	0.54	0.54	0.35	0.16
VLLW	0.08	0.12	0.09	0.04
Total	**5,000**	**2,400**	**500**	**43**

Aerial view of Sellafield site



Active waste retrievals, Berkeley

6 LIST OF WASTE STREAMS IN THE INVENTORY AND THEIR VOLUMES

The table below shows the number of waste streams in the 2019 Inventory for each waste type from each waste producer.

Table 6.1 Number of waste streams in the 2019 Inventory

Site owner	HLW	ILW	LLW	VLLW	Total
NDA	4	499	440	24	**967**
Ministry of Defence		23	41	1	**65**
EDF Energy		94	133		**227**
United Kingdom Atomic Energy Authority		3	13		**16**
GE Healthcare		5	6		**11**
Urenco		2	14	2	**18**
Minor waste producers		7	4	3	**14**
Total	**4**	**633**	**651**	**30**	**1,318**

All 1,318 waste streams in the 2019 Inventory are listed on the following pages in order of waste stream identifier (see box below). Each site is identified, together with the site owner and waste custodian. For sites with operational and decommissioning wastes, the operational waste streams are listed first.

The following information is given for each waste stream:

- Stream identifier, stream title and waste type
- Reported volume of waste at 1 April 2019
- Reported volume of waste for projected future arisings
- Total reported volume for all wastes at 1 April 2019 and projected future arisings
- Forecast total packaged volume and number of waste packages when all stocks at 1 April 2019 and projected future arisings have been packaged.

Further information on the reporting of waste volumes can be found in the *UK Radioactive Waste Inventory* report. The forecast packaged volume and number of waste packages are determined from waste packaging plans. For those waste streams where waste packaging plans are not yet fully defined, assumptions have been made so that total package numbers and packaged volumes can be estimated.

The reported volume of waste (at 1 April 2019, future arisings and total) is the reported value in cubic metres (m^3) to 1 decimal place. Reported volumes of less than 0.05 m^3 are displayed as "<0.1". The packaged volume and number of waste packages for all wastes at 1 April 2019 and future arisings are calculated values given to three significant figures, or, for values below ten, to the nearest 0.1. Calculated fractional package numbers for waste streams are not rounded up to the nearest whole number. This would overestimate the number of packages, particularly as small volume waste streams of the same type and the same or similar composition at a site will be packaged together.

Total volumes and package numbers are zero for waste streams that are to be incinerated or recycled, or where arisings are not estimated.

VLLW may be disposed to appropriately permitted landfill sites. Package numbers for these wastes are not reported as the Inventory does not collate information on how wastes are consigned to landfill.

Waste stream identification

The fundamental designation used in the Inventory is that of the waste stream. Waste streams include waste or a collection of waste items at a particular site, usually in a particular facility and/or from particular processes or operations. A waste stream is often distinguishable by its radionuclide content and in many cases also by its physical and chemical characteristics. Each waste stream in the Inventory is allocated a unique identification code. Historically the first character of the identifier indicated the custodian of the waste[3]. However, with the recent reorganisation of the nuclear industry and transfer of custodianship at a number of sites, this is no longer the case.

The first two characters uniquely identify the site (and hence its custodian), and are followed by a two- or three- digit number. Numbers in the range 01 to 99 identify operational wastes, and a three-digit number identifies decommissioning wastes. For example:

Waste stream 3K02 — **3K** (site = Hartlepool; custodian = EDF Energy)
02 (operational waste)

In some cases the two- or three-digit number may be supplemented by decimals (e.g. 2D96.1 or 2D87.2.3). A waste stream that has been conditioned in a suitable container for long-term management, or is being conditioned directly as it arises, includes a /C suffix in the identification code (e.g. 2D38/C).

Identifiers are not sequential because over time some waste streams have been amalgamated, others split up and renumbered. Some LLW and VLLW streams have been disposed and so are no longer reported.

[3] *The custodian is the licensee of the site where the waste is currently stored or will arise. The custodian has all responsibilities for the safe and environmental compliant management of the waste. For a very small number of waste streams, some of the waste has been generated at another site.*

Site Owner – Waste Custodian - Site		Waste type	Reported volume (m^3)			When wastes at 1.4.2019 and future arisings are packaged	
Stream Identifier	Title		At 1.4.2019	Future arisings	Total	Packaged volume (m^3)	Number of packages[(1)]
GE Healthcare – GE Healthcare - Amersham							
1A01	LLW Compactable Drummable	LLW	1.6	75.0	76.6	83.1	1.5
1A02	LLW Non-Compactable Drummable	LLW	20.0	350.0	370.0	412	9.5
1A03	LLW Non-Compactable Non-Drummable	LLW	179.0	527.0	706.0	773	17.2
1A04	LLW Non-Compactable Drummable (Spoil)	LLW	10.2	1,000.0	1,010.2	1,020	1.3
1A07	ILW	ILW	168.5	11.5	180.0	221	386
1A08	Decay Stored Waste	ILW	15.1	0	15.1	0	0
1A09	Incinerated Waste	LLW	37.1	5.0	42.1	0	0
1A10	ILW Containing Radium	ILW	2.0	9.0	11.0	13.5	23.6
1A11	Sealed Sources	ILW	<0.1	0	<0.1	<0.1	<0.1
1A12	ILW Containing Tritium	ILW	184.5	0	184.5	0	0
GE Healthcare – GE Healthcare – Cardiff							
1B03	LLW Non-Compactable Non-Drummable	LLW	0	80.0	80.0	80.0	0
NDA - Sellafield Ltd – Sellafield							
2A01	Redundant Activated Control Rods ILW	ILW	2.9	0	2.9	6.9	1.5
2A06	Redundant Activated Control Rods LLW	LLW	7.6	0	7.6	14.8	0.8
2A07	Redundant Fuel Transport Flasks & Liners	LLW	27.2	59.2	86.4	33.7	1.7
2A30	Waste Oils	LLW	15.0	10.0	25.0	0	0
2A910	Care and Maintenance Preparation (Reactor LLW)	LLW	0	8,222.6	8,222.6	1,690	86.4
2A911	C&M Preparation: Control Rod Mechanism Workshop Dismantling LLW	LLW	0	132.6	132.6	51.0	2.6
2A914	C&M Preparations Calder Hall Lagging - HVVLLW	VLLW	40.0	110.0	150.0	150	-
2A100	Care & Maintenance: General Reactor LLW	LLW	0	144.0	144.0	0	0
2A303	Final Dismantling & Site Clearance : Graphite LLW	LLW	0	6.3	6.3	8.3	0.4
2A304	Final Dismantling & Site Clearance : Mild Steel (Reactor) LLW	LLW	0	8,141.0	8,141.0	3,170	163
2A305	Final Dismantling & Site Clearance : Stainless Steel (Reactor) LLW	LLW	0	6.0	6.0	2.3	0.1
2A306	Final Dismantling & Site Clearance : Mild Steel (Non-Reactor) LLW	LLW	0	4,235.0	4,235.0	1,650	84.7
2A307	Final Dismantling & Site Clearance Concrete (Reactor & Non-Reactor) LLW	LLW	0	16,604.0	16,604.0	18,200	166
2A308	Final Dismantling & Site Clearance: Misc Metals & Materials (Reactor and Non-Reactor) LLW	LLW	0	721.0	721.0	281	14.4

Site Owner – Waste Custodian - Site		Waste type	Reported volume (m^3)			When wastes at 1.4.2019 and future arisings are packaged	
Stream Identifier	Title		At 1.4.2019	Future arisings	Total	Packaged volume (m^3)	Number of packages[(1)]
2A309	Final Dismantling & Site Clearance: Secondary LLW	LLW	0	1,113.0	1,113.0	411	20.9
2A310	Final Dismantling & Site Clearance: Graphite ILW	ILW	0	3,633.2	3,633.2	9,010	2,730
2A311	Final Dismantling & Site Clearance : Mild Steel (Reactor) ILW	ILW	0	654.0	654.0	1,620	492
2A312	Final Dismantling & Site Clearance : Stainless Steel (Reactor) ILW	ILW	0	80.0	80.0	198	60.2
2A313	Final Dismantling & Site Clearance : Miscellaneous Metal (Reactor) ILW	ILW	0	21.2	21.2	52.6	15.9
NDA - Magnox Ltd - Chapelcross							
2C01	Ion Exchange Resins AW500 (Zeolite)	ILW	39.4	0	39.4	593	50.0
2C02	CXPP Stainless Steel	ILW	<0.1	0	<0.1	0	0
2C03	Miscellaneous Reactor Components Stored dry	ILW	13.0	0	13.0	16.1	0.8
2C04	Waste Oil	LLW	13.0	0	13.0	0	0
2C05	Sludge	ILW	15.0	0	15.0	15.8	12.0
2C06	Ceramic Pellets	ILW	4.0	0	4.0	11.4	20.0
2C07	Contaminated Plant Components (CXPP Cave Line)	ILW	5.0	0	5.0	25.0	43.9
2C08	Hydraulic Fluid	LLW	0.9	0	0.9	0	0
2C15	Rotary Pump Oil	ILW	0.3	0	0.3	0	0
2C20	Fuel Skips in Pond	ILW	84.3	0	84.3	156	13.2
2C23	Desiccant	ILW	15.0	0	15.0	48.8	2.5
2C28	Miscellaneous Reactor Components stored wet	ILW	7.0	0	7.0	33.0	25.0
2C29	Vacuum Furnaces	ILW	0.6	0	0.6	1.1	2.0
2C30	Uranium Furnaces	ILW	0.7	0	0.7	3.4	6.0
2C31	Cobalt Cartridges	ILW	0.1	0	0.1	11.8	9.0
2C32	CEGB Cartridges (Bradwell)	ILW	0.2	0	0.2	0.6	1.0
2C33	Activated Charcoal	LLW	0	90.0	90.0	0	0
2C34	Spark Arrestors	ILW	1.5	0	1.5	6.9	12.0
2C35	Tritiated Mercury	ILW	<0.1	0	<0.1	0.6	1.0
2C36	Chapelcross Process Plant Product Containers	ILW	1.7	0	1.7	4.0	7.0
2C37	CXPP Delay Tank Sludges	ILW	0.2	0	0.2	1.3	1.0
2C38	Miscellaneous Activated Reactor Components	ILW	18.6	0	18.6	23.0	1.1
2C40	Large Items from Cooling Ponds VLLW	VLLW	0	909.0	909.0	909	-
2C41	Fuel Skips in Pond	LLW	43.5	0	43.5	27.6	1.4

Site Owner – Waste Custodian - Site		Waste type	Reported volume (m^3)			When wastes at 1.4.2019 and future arisings are packaged	
Stream Identifier	Title		At 1.4.2019	Future arisings	Total	Packaged volume (m^3)	Number of packages[(1)]
2C42/C	Ceramic Pellets	ILW	131.0	0	131.0	131	187
2C920	Reactor Decommissioning Preparations	LLW	0	4,572.3	4,572.3	1,230	18.3
2C921	Ponds LLW	LLW	0	1,900.6	1,900.6	1,510	28.5
2C923	Pipeline Steel LLW	LLW	0	501.5	501.5	0	0
2C925	Chapelcross Processing Plant Dismantling LLW	LLW	286.0	2,371.5	2,657.5	2,370	53.1
2C926	Chapelcross Processing Plant Dismantling ILW	ILW	0	30.0	30.0	45.7	80.0
2C929	Pipeline Lime Scale	VLLW	0	11.2	11.2	11.2	-
2C931	LLW Radioactive Sources	LLW	<0.1	0	<0.1	<0.1	<0.1
2C932	Graphite Handling Facility LLW	LLW	23.6	0	23.6	22.7	0
2C933	MAETP ILW Resin	ILW	0	0.5	0.5	1.3	1.0
2C100	General Reactor LLW	LLW	0	128.0	128.0	96.0	0
2C303	Contaminated Soil	LLW	0	1,000.0	1,000.0	1,000	0
2C304	Graphite LLW	LLW	0	6.0	6.0	6.0	0
2C305	Mild Steel (Reactor) LLW	LLW	0	221.0	221.0	431	22.1
2C306	Stainless Steel (Reactor) Recycle LLW	LLW	0	4.6	4.6	0	0
2C307	Mild Steel (Non-Reactor) LLW	LLW	0	4,235.0	4,235.0	4,240	0
2C308	Concrete (Reactor and Non-Reactor) LLW	LLW	0	34,903.1	34,903.1	34,900	0
2C309	Miscellaneous Metals and Materials (Reactor and Non-Reactor) LLW	LLW	0	480.0	480.0	480	0
2C310	Secondary Wastes LLW	LLW	0	1,114.0	1,114.0	1,110	0
2C311	Graphite ILW	ILW	0	3,647.0	3,647.0	4,510	225
2C312	Mild Steel (Reactor) ILW	ILW	0	782.0	782.0	967	48.3
2C313	Stainless Steel (Reactor) ILW	ILW	0	80.0	80.0	170	8.5
2C314	Miscellaneous Metal (Reactor) ILW	ILW	0	21.0	21.0	44.7	2.2
2C316	Miscellaneous Metals and Materials (Reactor and Non-Reactor) VLLW	VLLW	0	110.0	110.0	110	-
2C317	Mild Steel (Reactor) Recycle LLW	LLW	0	5,557.0	5,557.0	0	0
NDA - Sellafield Ltd - Sellafield							
2D02	High Level Liquid Waste	HLW	1,236.1	-856.3	379.8	182	926
2D02/C	Vitrified High Level Waste - Magnox	HLW	456.0	0	456.0	596	3,040
2D03	Plutonium Contaminated Materials; Drums	ILW	1,962.4	4,493.9	6,456.3	3,290	5,760
2D06	Plutonium Contaminated Materials; Crates and Filters	ILW	4,958.2	575.4	5,533.6	2,820	4,940

Site Owner – Waste Custodian - Site		Waste type	Reported volume (m^3)			When wastes at 1.4.2019 and future arisings are packaged	
Stream Identifier	Title		At 1.4.2019	Future arisings	Total	Packaged volume (m^3)	Number of packages[(1)]
2D07	Pile Fuel Cladding and Miscellaneous Solid Waste	ILW	3,231.0	0	3,231.0	7,260	2,200
2D08.1	MSSS Compartment 1	ILW	617.0	0	617.0	2,170	656
2D08.2	MSSS Compartment 2	ILW	617.0	0	617.0	2,170	656
2D08.3	MSSS Compartment 3	ILW	617.0	0	617.0	2,170	656
2D08.4	MSSS Compartment 4	ILW	617.0	0	617.0	2,170	656
2D08.5	MSSS Compartment 5	ILW	617.0	0	617.0	2,170	656
2D08.6	MSSS Compartment 6	ILW	617.0	0	617.0	2,170	656
2D09.1	MSSS Compartment 7	ILW	603.0	0	603.0	2,120	642
2D09.2	MSSS Compartment 8	ILW	603.0	0	603.0	2,120	642
2D09.3	MSSS Compartment 9	ILW	603.0	0	603.0	2,120	642
2D09.4	MSSS Compartment 10	ILW	603.0	0	603.0	2,120	642
2D09.5	MSSS Compartment 12	ILW	603.0	0	603.0	2,120	642
2D11	Pond Sludge	ILW	296.0	0	296.0	676	1,180
2D11/C	Conditioned Pond Sludge	ILW	74.1	0	74.1	89.6	157
2D12	MBGW in PFSP	ILW	262.5	0	262.5	509	664
2D19	Aluminium-Ferric Floc from Effluent Treatment	ILW	3,730.1	-3,730.1	0	0	0
2D21	Solid Waste Storage Cells	ILW	440.0	0	440.0	691	210
2D22.1	MSSS Compartment 13	ILW	612.0	0	612.0	2,150	651
2D22.2	MSSS Compartment 14	ILW	612.0	0	612.0	2,150	651
2D23	Filters in Concrete Box	ILW	16.0	0	16.0	19.6	5.9
2D24.1	MSSS Compartment 16	ILW	427.0	0	427.0	1,500	454
2D24.2	MSSS Compartment 17	ILW	474.0	0	474.0	1,660	504
2D24.3	MSSS Compartment 18	ILW	474.0	0	474.0	1,660	504
2D25	MSSS - Compartment 15	ILW	426.0	0	426.0	1,500	453
2D26	Ion Exchange Material (Clinoptilolite) and Sand	ILW	1,335.0	1,640.0	2,975.0	3,650	6,380
2D27/C	Encapsulated Floc from Effluent Treatment	ILW	9,508.0	4,466.0	13,974.0	16,000	27,900
2D31	Magnox Fuel Transport Flasks	LLW	110.8	0	110.8	10.8	0.6
2D33	Fuel Handling Plant Sludges	ILW	12.5	20.5	33.0	136	41.3
2D34	Sludge from Sand Filters and Transfers	ILW	961.0	135.0	1,096.0	1,340	2,350
2D35.1	MSSS Compartment 19	ILW	474.0	0	474.0	1,660	504

Site Owner – Waste Custodian - Site		Waste type	Reported volume (m^3)			When wastes at 1.4.2019 and future arisings are packaged	
Stream Identifier	Title		At 1.4.2019	Future arisings	Total	Packaged volume (m^3)	Number of packages[(1)]
2D35.2	MSSS Compartment 20	ILW	474.0	0	474.0	1,660	504
2D35.3	MSSS Compartment 21	ILW	487.0	0	487.0	1,710	518
2D35.4	MSSS Compartment 22	ILW	487.0	0	487.0	1,710	518
2D35/C	Encapsulated Retrieved Magnox Cladding	ILW	1,205.4	0	1,205.4	1,410	2,470
2D38/C	Encapsulated Magnox Cladding	ILW	9,863.9	417.2	10,281.2	12,000	21,100
2D39	Miscellaneous Beta/Gamma Waste Store	ILW	3,367.0	2,471.0	5,838.0	7,840	1,670
2D42	Magnox Pond Furniture	ILW	0	4,080.0	4,080.0	5,390	277
2D43	Pond Skips	LLW	615.8	-615.8	0	0	0
2D45	Magnox Fuel End Crops	ILW	27.4	0	27.4	42.1	12.7
2D55	Stored Filters	ILW	14.0	0	14.0	17.1	5.2
2D56	Effluent Plants Maintenance Waste	ILW	0.4	2.6	3.0	7.1	1.5
2D57	Hydrocyclone Solids from Effluent Treatment	ILW	<0.1	3.0	3.0	3.4	6.0
2D64	Magnox Interfacial Crud - ILW	ILW	10.0	10.0	20.0	22.8	40.0
2D73	MSSS - Miscellaneous Beta/Gamma Waste in Voids	ILW	10.0	0	10.0	35.1	10.6
2D74	Pile Fuel Storage Pond Ion Exchange Material	ILW	0.8	1.5	2.3	2.7	4.8
2D74/C	Conditioned Pile Fuel Storage Pond Ion Exchange Material	ILW	7.0	0	7.0	8.0	14.0
2D76/C	Encapsulated Retrieved Pond Sludge	ILW	0.5	0	0.5	0.6	1.0
2D77/C	Encapsulated Retrieved Miscellaneous Beta/Gamma Waste	ILW	0.5	0	0.5	0.6	1.0
2D83/C	Encapsulated Plutonium Contaminated Materials	ILW	3,321.5	0	3,321.5	3,760	6,590
2D90	Plutonium Contaminated Materials; Drums	ILW	3,561.6	5,231.8	8,793.4	4,480	7,850
2D93	Acidic Sample Waste in Analytical Services	ILW	3.2	0.5	3.7	4.2	7.4
2D95.1	Magnox Fuel Storage Pond Sludge	ILW	1,302.3	0	1,302.3	4,990	8,740
2D95.2	Settling Pond Sludge	ILW	75.0	0	75.0	310	93.9
2D95.3	Sludge Settling Tank	ILW	26.5	0	26.5	110	33.2
2D95.4	Decanner Settling Tank Sludge	ILW	35.0	0	35.0	134	235
2D95.5	Sludge in SPP1 Buffer	ILW	84.7	0	84.7	325	568
2D96.2	FGMSP Pond Solid Waste to BEP	ILW	2,077.6	0	2,077.6	3,870	1,170
2D96.4	Ion Exchange Material in Skips (AW500)	ILW	302.6	0	302.6	757	229
2D96.5	FGMSP Fuel Bearing Materials	ILW	37.0	0	37.0	45.3	79.4
2D97	Miscellaneous Trench Silt ILW/LLW	ILW	43.0	430.0	473.0	580	1,020

Site Owner – Waste Custodian - Site		Waste type	Reported volume (m^3)			When wastes at 1.4.2019 and future arisings are packaged	
Stream Identifier	Title		At 1.4.2019	Future arisings	Total	Packaged volume (m^3)	Number of packages[(1)]
2D100	Pile Chimney Decommissioning Waste	ILW	39.4	0	39.4	108	32.8
2D108	Miscellaneous Plants Initial/Interim Decommissioning: Ponds	LLW	0	2,680.5	2,680.5	705	36.0
2D109	Miscellaneous Plants Initial/Interim Decommissioning: Processing Plants, Tanks, Silos etc.	LLW	0	34,813.9	34,813.9	9,150	468
2D110	Miscellaneous Plants Initial/Interim Decommissioning: Product Stores	LLW	0	1,449.4	1,449.4	353	12.1
2D111	Plutonium Plants Initial/Interim Decommissioning: Processing Plants	LLW	0	2,141.7	2,141.7	633	32.3
2D112	Plutonium Plants Initial/Interim Decommissioning: Stores	LLW	0	214.4	214.4	56.4	2.9
2D113	Uranium Plants Initial/Interim Decommissioning: Processing Plants	LLW	0	984.3	984.3	265	13.5
2D114	Uranium Plants Initial/Interim Decommissioning: Stores	LLW	0	78.9	78.9	20.7	1.1
2D115	Miscellaneous Plants Initial/Interim Decommissioning: Ponds	ILW	0	386.7	386.7	2,470	951
2D116	Miscellaneous Plants Initial/Interim Decommissioning: Processing Plants, Tanks, Silos etc.	ILW	0	17,030.7	17,030.7	109,000	40,100
2D117	Miscellaneous Plants Initial/Interim Decommissioning: Product Stores	ILW	0	83.9	83.9	543	165
2D118	Plutonium Plants Initial/Interim Decommissioning: Processing Plants	ILW	0	118.0	118.0	763	231
2D120	Uranium Plants Initial/Interim Decommissioning: Processing Plants	ILW	0	14.6	14.6	94.2	28.5
2D122	Miscellaneous Plants Final Decommissioning: Ponds	LLW	0	1,887.7	1,887.7	1,470	0
2D123	Miscellaneous Plants Final Decommissioning: Processing Plants, Tanks, Silos, etc.	LLW	0	34,819.4	34,819.4	30,800	543
2D124	Miscellaneous Plants Final Decommissioning: Product Stores	LLW	0	7,397.0	7,397.0	5,770	0
2D125	Plutonium Plants Final Decommissioning: Processing Plants	LLW	0	635.4	635.4	489	0
2D126	Plutonium Plants Final Decommissioning: Stores	LLW	0	1,216.6	1,216.6	1,070	0
2D127	Uranium Plants Final Decommissioning: Processing Plants	LLW	0	457.6	457.6	348	0
2D130	Miscellaneous Plants Initial/Interim Decommissioning: Processing Plants, Tanks, Silos, etc. (PCM)	ILW	0	5,007.3	5,007.3	12,000	21,000
2D132	Plutonium Plants Initial/Interim Decommissioning: Processing Plants (PCM)	ILW	0	2,494.5	2,494.5	5,960	10,400
2D133	Plutonium Plants Initial/Interim Decommissioning: Stores (PCM)	ILW	0	546.3	546.3	1,310	2,290
2D136	Miscellaneous Plants Final Decommissioning: Ponds	ILW	0	248.7	248.7	1,590	585
2D137	Miscellaneous Plants Final Decommissioning: Processing Plants, Tanks, Silos, etc.	ILW	0	12,487.0	12,487.0	39,400	11,900

Site Owner – Waste Custodian - Site		Waste type	Reported volume (m^3)			When wastes at 1.4.2019 and future arisings are packaged	
Stream Identifier	Title		At 1.4.2019	Future arisings	Total	Packaged volume (m^3)	Number of packages[(1)]
2D148	HVVLLW from Final Decommissioning	VLLW	0	2,701,786.3	2,701,786.3	2,570,000	-
2D200	Contact Handled ILW from Harwell	ILW	531.4	0	531.4	276	483
2D201	ILW Concrete Lined Drums from Harwell	ILW	423.4	0	423.4	519	909
2D202/C	Dragon Fuel from Winfrith	ILW	3.5	0	3.5	4.0	7.0
NDA - Springfields Fuels Ltd - Springfields							
2E15	Drummed Waste for Disposal at LLW Repository	LLW	0	0	0	0	0
2E90	General Waste for Clifton Marsh Disposal	LLW	0	50,000.0	50,000.0	50,000	0
2E91	Process Wastes for Clifton Marsh	LLW	30.0	430.0	460.0	460	0
2E101	Decommissioning LLW	LLW	0	988.0	988.0	1,310	66.7
2E191	Decommissioning Wastes for Clifton Marsh Disposal	LLW	0	197,148.0	197,148.0	187,000	0
NDA - Sellafield Limited - Sellafield							
2F01/C	Vitrified High Level Waste	HLW	459.2	88.4	547.5	715	3,650
2F02	Plutonium Contaminated Materials; Drums	ILW	61.8	85.6	147.4	75.1	132
2F03/C	Encapsulated AGR Cladding	ILW	1,998.5	1.5	2,000.0	2,250	3,940
2F04/C	Encapsulated LWR Cladding	ILW	1,825.8	0	1,825.8	2,050	3,590
2F06/C	Encapsulated Barium Carbonate Slurry/MEB Crud	ILW	602.7	30.2	633.0	766	1,340
2F07	AGR Graphite Fuel Assembly Components	ILW	4,730.4	2,805.6	7,536.0	11,700	20,500
2F08	AGR Stainless Steel Fuel Assembly Components	ILW	652.0	267.8	919.8	1,430	2,510
2F10/C	Encapsulated Centrifuge Cake	ILW	476.2	158.6	634.8	768	1,340
2F14	AGR Pond Furniture (Containers, Skips, Racks)	LLW	0	9,950.0	9,950.0	0	0
2F15	LWR Pond Furniture (MEBs)	ILW	0	2,427.8	2,427.8	1,890	97.1
2F17	Excellox Flasks	LLW	1,223.4	0	1,223.4	119	6.1
2F20	LWR Pond Furniture (Racks and Frames) from First Generation Oxide Storage Pond	LLW	0	7,583.1	7,583.1	0	0
2F21/C	Encapsulated Maintenance Scrap	ILW	103.0	20.0	123.0	140	246
2F22/C	High Level Contaminated Waste	HLW	0	6.8	6.8	8.8	45.0
2F26	LWR Pond Sludge	ILW	22.2	17.0	39.2	48.0	84.1
2F27	AGR Pond Sludge	ILW	6.6	4.1	10.7	13.1	23.0
2F28	Interfacial Crud - ILW/LLW	ILW	0.5	0.1	0.6	0.7	1.3
2F31	MSSS Compartment 11	ILW	74.4	0	74.4	261	79.2

Site Owner – Waste Custodian - Site		Waste type	Reported volume (m^3)			When wastes at 1.4.2019 and future arisings are packaged	
Stream Identifier	Title		At 1.4.2019	Future arisings	Total	Packaged volume (m^3)	Number of packages[(1)]
2F34	Plutonium Contaminated Materials; Drums	ILW	27.8	26.8	54.6	27.8	48.8
2F35	Tn 17 and NTL 11 Flasks	LLW	128.2	0	128.2	12.5	0.6
2F36	LWR Pond Furniture	LLW	0	737.3	737.3	575	29.5
2F40	Fuel Support Frames	LLW	17.7	0	17.7	1.7	0.1
2F41	LWR Pond Furniture (MEBs) in Interim Storage	LLW	777.6	0	777.6	607	31.1
2F42/C	Encapsulated MEP, Thorp and WEP POCO	ILW	0	432.0	432.0	493	864
NDA – Low Level Waste Repository Ltd - LLWR							
2N01	Legacy Drum Sampling Secondary Waste	LLW	36.0	0	36.0	1.6	0.1
2N03	Plutonium Contaminated Material; Drummed (Operational Mixed Waste)	ILW	360.6	0	360.6	172	301
2N04	LLW from PCM Operations	LLW	48.8	30.0	78.8	106	5.4
2N06	LLW from Site LLW Operations	LLW	58.5	755.0	813.5	950	43.7
2N14	LLW from PCM Operations for Metal Treatment	LLW	175.5	39.0	214.5	0	0
2N15	LLW from PCM Operations for Combustible Treatment	LLW	90.0	40.0	130.0	0	0
2N16	VLLW from PCM Operations	VLLW	17.4	8.6	26.0	26.0	-
2N17	Legacy Drums (Bulk)	ILW	34.7	0	34.7	42.5	74.5
2N18	Low Level Waste Drums	LLW	4.0	0	4.0	22.3	1.0
NDA – National Nuclear Laboratory - Sellafield							
2P02	BTC HA Cells	LLW	0	480.0	480.0	0	0
2P03	BTC Level 3 Laboratories and Other General Active Areas	LLW	0	752.8	752.8	288	14.4
2P05	BTC Rig Hall	LLW	22.7	6.5	29.2	17.2	0.2
NDA - Sellafield Limited – Sellafield							
2S09	Waste from P.I.E. Operations	ILW	3.8	21.0	24.8	96.3	29.2
2S11	Windscale Uranic Residues	ILW	0.2	0	0.2	0.3	0.5
2S302	Windscale Pile1 and Pile 2 Graphite and Aluminium Charge Pans	ILW	0	1,928.0	1,928.0	12,500	3,780
2S303	Windscale Pile 2 LLW	LLW	0	3,650.0	3,650.0	5,250	269
2S304	Windscale Piles Fuel and Isotopes	ILW	0.1	39.7	39.8	142	249
2S308/C	Conditioned WAGR Decommissioning ILW	ILW	610.6	5.8	616.3	1,270	107
2S309	AGR Examination Caves LLW	LLW	0	457.8	457.8	306	15.7
2S310	AGR Examination Caves ILW	ILW	0	40.0	40.0	47.1	14.3

Site Owner – Waste Custodian - Site		Waste type	Reported volume (m^3)			When wastes at 1.4.2019 and future arisings are packaged	
Stream Identifier	Title		At 1.4.2019	Future arisings	Total	Packaged volume (m^3)	Number of packages[(1)]
2S311	Other Facilities Decommissioning LLW	LLW	0.5	2,444.5	2,445.0	3,810	196
2S312	Other Facilities Decommissioning ILW	ILW	1.0	117.8	118.8	187	56.6
2S313	Windscale Piles Miscellaneous ILW	ILW	6.8	798.0	804.8	5,480	1,660
2S314	WAGR - HVVLLW	VLLW	0	6,656.2	6,656.2	6,660	-
NDA - Sellafield Limited - Sellafield							
2X01	WTC and PCM Stores LLW	LLW	0	1,980.3	1,980.3	661	33.1
2X01/3	North Group Complex LLW	LLW	0	4,635.0	4,635.0	4,760	17.4
2X02	Magnox Plutonium Finishing Lines & Plutonium Stores LLW	LLW	0	2,277.4	2,277.4	1,410	28.1
2X03	Decontamination Centre LLW	LLW	0	71.1	71.1	20.0	1.0
2X05	Solid LLW from Separation Area	LLW	0	25,900.7	25,900.7	15,000	362
2X05/1	SEP Surface Drainage System Solids and Lagoon Sediment LLW	LLW	0	1,404.3	1,404.3	2,220	114
2X06	Redundant NNL Facilities AC&M LLW	LLW	0	117.9	117.9	52.2	2.6
2X07	Demolition of Development Centre B and Ancilliary Buildings	LLW	0	308.1	308.1	172	6.9
2X08	LLW from Reprocessing Plant General Areas	LLW	0	654.1	654.1	224	11.3
2X09	Reprocessing Plant: PS1 and Dissolver Tower Area LLW	LLW	0	92.9	92.9	34.6	1.7
2X10	Reprocessing Plant: Thermal Denitration Plant Area and UO3 Rework Facility LLW	LLW	0	258.0	258.0	83.7	4.2
2X11	Reprocessing Plant: MA Evaporator Area	LLW	0	231.5	231.5	121	6.1
2X15	HLW Plants: HA Evaporation & Storage LLW	LLW	0	2,550.0	2,550.0	472	23.9
2X16	Low Active Effluent Management Group: Salt Evaporator LLW	LLW	0	54.6	54.6	18.7	0.9
2X17	Low Active Effluent Management Group: MA Tanks LLW	LLW	0	56.0	56.0	13.0	0.7
2X18	Low Active Effluent Management Group: LA Treatment & Sludge Tanks	LLW	0	50.9	50.9	16.8	0.8
2X18/3	Floc Storage Tank Centre Spine Silt Drums	LLW	9.2	0	9.2	17.9	0.9
2X19	Low Active Effluent Management Group: SETP Operational LLW	LLW	0	70.2	70.2	5.4	0.3
2X19/2	Low Active Effluent Management Group: LA Effluent Treatment Plant Decommissioning LLW	LLW	0	91.9	91.9	33.4	1.7
2X20	LLW from Magnox Storage Pond and Decanning Facility	LLW	0	3,930.3	3,930.3	1,130	56.3
2X21/3	LLW from Magnox Flask Maintenance Facility	LLW	0	355.3	355.3	68.9	2.7
2X22	Calder LLW	LLW	0	2,449.0	2,449.0	161	4.1
2X22/1	Calder Hall Cooling Water System Solid LLW	LLW	0	1.6	1.6	0.9	<0.1

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Stream Identifier	Title		At 1.4.2019	Future arisings	Total	Packaged volume (m^3)	Number of packages[(1)]
2X25	Ponds East River: Fuel Handling Plant LLW	LLW	0	3,187.6	3,187.6	188	9.4
2X26	Ponds East River: SIXEP LLW	LLW	0	996.0	996.0	11.8	0.6
2X27	Ponds East River: AGR Dismantler & Store LLW	LLW	0	837.5	837.5	38.3	1.9
2X28	Wet Inlet Facility LLW	LLW	0	285.0	285.0	13.6	0.7
2X29	Solid LLW from LWR Storage Pond	LLW	0	280.0	280.0	23.2	1.2
2X30	Solid LLW from AGR Storage Pond	LLW	0	219.3	219.3	14.8	0.7
2X31	Solid LLW from Oxide Flask Maintenance Facility and Railways	LLW	0	300.0	300.0	23.9	1.2
2X32	THORP Receipt & Storage LLW	LLW	0	2,910.0	2,910.0	132	6.7
2X33	B205 Plutonium Areas	LLW	0	265.0	265.0	91.0	4.6
2X34	Separation Area Ventilation LLW	LLW	0	1,100.0	1,100.0	424	21.3
2X35	Solid LLW from MEP & Associated Buildings plus Encapsulated Product Stores	LLW	0	418.0	418.0	60.4	3.0
2X36	Waste Encapsulation Plant LLW	LLW	0	408.0	408.0	22.7	1.1
2X37	Miscellaneous Beta Gamma Waste Store LLW	LLW	0	455.0	455.0	164	8.2
2X39	LLW from Waste Vitrification Plant and Vitrified Product Store	LLW	0	2,050.3	2,050.3	265	10.9
2X40	PCM Drums Reclassified To LLW	LLW	0	984.0	984.0	332	16.6
2X49	LLW from the Active Area Laundry and Associated Drain Sumps	LLW	0	20,220.0	20,220.0	1,530	76.6
2X50	Solid LLW from Effluent Plants and Associated Stores	LLW	0	720.0	720.0	217	10.9
2X51	Thorp Feed Pond LLW	LLW	0	615.0	615.0	47.8	2.4
2X52	Thorp Head End LLW	LLW	0	279.3	279.3	18.2	0.9
2X53	Thorp Uranium Purification/Finishing LLW	LLW	0	81.9	81.9	26.4	1.3
2X54	Thorp Plutonium Purification/Finishing LLW	LLW	0	116.1	116.1	39.1	2.0
2X55	Thorp Uranium (IV) LLW	LLW	0	11.2	11.2	3.8	0.2
2X57	Thorp Chemical Separation Area LLW	LLW	0	321.5	321.5	96.3	4.8
2X59	LLW from the MOX Demonstration Facility PIE Laboratory	LLW	0	3.1	3.1	0.2	<0.1
2X61	WAMAC LLW	LLW	0	234.7	234.7	56.8	2.8
2X62	Sellafield MOX Plant LLW (Uranium Areas)	LLW	0	92.0	92.0	29.8	1.5
2X64	SMP LLW (MOX & Pu Areas)	LLW	0	387.2	387.2	139	7.0
2X65	Radioactive Sources	LLW	0	0.4	0.4	0.8	<0.1
2X68	Analytical Services Facilities	LLW	0	9,450.0	9,450.0	3,270	164

Site Owner – Waste Custodian - Site		Waste type	Reported volume (m^3)			When wastes at 1.4.2019 and future arisings are packaged	
Stream Identifier	Title		At 1.4.2019	Future arisings	Total	Packaged volume (m^3)	Number of packages[(1)]
2X71	Solvent Treatment Plant LLW	LLW	0	11.0	11.0	3.5	0.2
2X72	Oxide Transport Containers (Baskets and Stools)	LLW	5.8	0	5.8	0.6	<0.1
2X74	Mixed Oxide Areas of the MOX Demonstration Facility	LLW	0	204.0	204.0	82.0	4.1
2X82	Low Active Drain (LAD) Zones 5-9	LLW	0	19.9	19.9	13.7	0.2
2X83	Low Active Drain (LAD) Zone 4	LLW	0	13.7	13.7	5.2	0.2
2X84	Low Active Drain (LAD) Zones 1&3	LLW	0	70.8	70.8	33.5	1.7
2X85	Floc Retrieval Plant	LLW	0	10.2	10.2	3.4	0.2
2X87	AGR Fuel Sleeve Graphite	LLW	0	555.6	555.6	1,080	55.6
2X108/4	Separation Head Plant Outcell Clearance	LLW	0	849.1	849.1	380	19.3
2X110	Demolition of FGRP Stack	LLW	0	79.5	79.5	17.0	0.8
2X114/1	Caesium Extraction Plant Decommissioning	LLW	0	81.4	81.4	14.6	0.7
2X115/12	Pile Chimney Decommissioning	LLW	0	535.2	535.2	444	0.2
2X116/4	PFR Plant Decommissioning	LLW	0	66.7	66.7	21.9	1.1
2X117/1	Pile Fuel Storage Pond Decommissioning	LLW	0	2,816.1	2,816.1	2,430	75.5
2X118	Purification and Recovery Plant Decommissioning	LLW	0	509.5	509.5	270	13.7
2X119/2	Solid LLW from Solvent Recovery Plant Outcell Areas	LLW	0	107.6	107.6	35.9	1.8
2X119/5	LLW from Solvent Recovery Plant Cell 3	LLW	0	10.0	10.0	2.9	0.1
2X119/7	Solid LLW from Thorp Miniature Pilot Plant	LLW	0	34.0	34.0	15.7	0.8
2X119/9	PIE Cave in Cell 6, Purification and Recovery Facility	LLW	0	25.0	25.0	10.3	0.5
2X122/2	Solid LLW from Analytical Services Labs 52, 54, 54A & 55	LLW	0	13.9	13.9	7.5	0.4
2X122/4	LLW from Analytical Services Lab 188C	LLW	0	9.0	9.0	3.0	0.2
2X124/1	LLW from Pile Fuel Cladding Silo General Areas	LLW	0	333.6	333.6	110	5.0
2X125	Magnox Swarf Storage Silo Decommissioning	LLW	0	10,946.7	10,946.7	2,250	103
2X127	Workshop & Incident Control Centre	LLW	0	230.4	230.4	77.7	3.9
2X130/1	North Group Compound Crate Storage Area LLW	LLW	0	20.6	20.6	6.9	0.3
2X131/1	LLW from Medium Active Solid Waste Storage Outcell Areas	LLW	0	3.0	3.0	0.6	<0.1
2X133	Magnox Sludge Settling and Transfer Facility LLW	LLW	0	204.7	204.7	28.1	1.4
2X134	Pipebridge 39 Replacement	LLW	0	57.5	57.5	65.4	3.2
2X135	Silo Maintenance Facility LLW	LLW	0	1,291.2	1,291.2	471	21.6
2X140/2	Miscellaneous Wastes Contaminated by Aerial Discharges	LLW	0	178,142.7	178,142.7	126,000	984

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Stream Identifier	Title		At 1.4.2019	Future arisings	Total	Packaged volume (m^3)	Number of packages[(1)]
2X301	Pile 1 LLW	LLW	0	141.8	141.8	57.2	2.9
2X302/7	Fuel Element Storage and Handling Compactable LLW	LLW	0	153.0	153.0	50.2	1.6
2X303	Shielded WAGR Waste Boxes	LLW	0	256.0	256.0	499	25.6
2X304	Active Handling Facility LLW	LLW	0	3,230.0	3,230.0	496	25.0
2X305	LLW from Redundant Active Handling Facilities	LLW	0	23.0	23.0	6.4	0.3
2X307/3	WAGR Solid Low Level Waste	LLW	0	294.4	294.4	55.5	2.6
2X927	Metals Recycling Facility LLW	LLW	0	158.5	158.5	157	0.9
NDA - Sellafield Limited - Sellafield							
2Y57	Excavated Soil and Putrescible Waste - High Volume Very Low Level Waste (HVVLLW)	VLLW	0	54,322.0	54,322.0	54,300	-
2Y60	Miscellaneous Minor Wastes - ILW	ILW	30.0	30.0	60.0	73.5	129
2Y65	Miscellaneous Minor Wastes - LLW	LLW	50.0	50.0	100.0	132	6.8
EDF Energy - EDF Energy - Dungeness B							
3J01	Ion Exchange Material	ILW	32.2	16.3	48.5	138	242
3J02	Sludge	ILW	5.6	2.6	8.2	14.2	24.8
3J03	Miscellaneous Contaminated Items	ILW	0	4.9	4.9	11.7	20.4
3J04	Desiccants ILW	ILW	120.0	80.0	200.0	0	0
3J09	Miscellaneous Activated Components - Debris Vault 3	ILW	3.0	8.0	11.0	18.1	0.9
3J11	Reactor Vessel Internals and Dry Fuel Route LLW	LLW	18.4	280.8	299.2	64.6	3.3
3J12	General Reactor LLW	LLW	8.6	192.6	201.2	130	6.7
3J13	Wet Fuel Route LLW	LLW	15.7	214.0	229.7	149	7.6
3J19	Catalysts LLW	LLW	1.1	2.2	3.3	7.1	0.4
3J20	Catalysts ILW	ILW	1.0	4.4	5.4	11.6	0.6
3J22	Miscellaneous Sludges	LLW	6.4	0	6.4	8.5	0.4
3J24	Neutron Scatter Plugs	ILW	25.2	96.0	121.2	495	24.7
3J25	Gag Pistons	ILW	2.0	0	2.0	2.0	0.1
3J26	Miscellaneous Activated Components - Debris Vault 1	ILW	93.5	64.9	158.4	260	13.0
3J27	Miscellaneous Activated Components & Fuel Stringer Debris - Debris Vault 2	ILW	306.2	207.5	513.7	843	42.1
3J110	Care & Maintenance Preparations: Stainless Steel LLW	LLW	0	618.5	618.5	712	36.5

Site Owner – Waste Custodian - Site		Waste type	Reported volume (m^3)			When wastes at 1.4.2019 and future arisings are packaged	
Stream Identifier	Title		At 1.4.2019	Future arisings	Total	Packaged volume (m^3)	Number of packages[(1)]
3J111	Care & Maintenance Preparations: Mild Steel LLW	LLW	0	2,358.3	2,358.3	1,090	56.0
3J112	Care & Maintenance Preparations: Secondary Waste LLW	LLW	0	1,200.2	1,200.2	259	13.3
3J113	Care & Maintenance Preparations: Miscellaneous Metals and Materials LLW	LLW	0	895.9	895.9	805	41.3
3J114	Care & Maintenance: Miscellaneous Materials LLW	LLW	0	93.5	93.5	27.2	1.4
3J311	Decommissioning Stage 3: Stainless Steel (Reactor) ILW	ILW	0	16.0	16.0	26.3	1.3
3J312	Decommissioning Stage 3: Mild Steel (Reactor) ILW	ILW	0	403.4	403.4	662	33.1
3J313	Decommissioning Stage 3: Graphite ILW	ILW	0	1,959.8	1,959.8	3,680	184
3J314	Decommissioning Stage 3: Stainless Steel (Reactor) LLW	LLW	0	2,764.4	2,764.4	877	45.0
3J315	Decommissioning Stage 3: Mild Steel (Reactor) LLW	LLW	0	3,291.0	3,291.0	1,040	53.5
3J317	Decommissioning Stage 3: Graphite LLW	LLW	0	1,693.8	1,693.8	2,260	113
3J318	Stage 3 Decommissioning: Concrete (Reactor and Non-Reactor) LLW	LLW	0	785.4	785.4	1,040	53.2
3J319	Stage 3 Decommissioning: Miscellaneous Metals and Materials (Reactor and Non-Reactor) LLW	LLW	0	116.2	116.2	194	9.9
3J320	Stage 3 Decommissioning: Secondary Wastes LLW	LLW	0	1,818.5	1,818.5	535	27.4
EDF Energy - EDF Energy - Hartlepool							
3K01	Pond Water Ion Exchange Material	ILW	11.4	2.2	13.6	38.8	68.0
3K02	Active Effluent Filtration Sludges	LLW	45.8	16.2	62.0	0	0
3K03	Miscellaneous Contaminated Items	ILW	0	4.5	4.5	11.2	19.6
3K04	Desiccant	ILW	35.5	66.0	101.5	0	0
3K09	Miscellaneous Activated Components - Debris Vault 1	ILW	17.5	7.0	24.5	40.2	2.0
3K14	Gas Circulator LLW	LLW	25.2	146.8	172.0	37.1	1.9
3K15	Dry Fuel Route LLW	LLW	18.4	142.8	161.2	104	5.4
3K16	Wet Fuel Route LLW	LLW	8.4	355.5	363.9	78.6	4.0
3K17	Waste Sorting LLW & Incinerator Ash	LLW	0.4	49.0	49.4	32.0	1.6
3K18	Pond Water Filtration Sludge	ILW	7.6	3.8	11.4	19.7	34.5
3K20	Gas Circulator Maintenance Sludge	LLW	1.5	0.5	2.0	3.8	0.2
3K22	Catalyst	ILW	3.4	3.2	6.6	14.1	0.7
3K23	Miscellaneous Activated Components - Debris Vault 3	ILW	0.5	0	0.5	0.8	<0.1
3K24	Miscellaneous Activated Components - Spalled Oxide & Dust	ILW	10.1	2.8	12.9	21.2	1.1

Site Owner – Waste Custodian - Site		Waste type	Reported volume (m^3)			When wastes at 1.4.2019 and future arisings are packaged	
Stream Identifier	Title		At 1.4.2019	Future arisings	Total	Packaged volume (m^3)	Number of packages[(1)]
3K25	Miscellaneous Activated Components - Debris Vault 4	ILW	168.0	65.6	233.6	383	19.1
3K26	Laundry LLW	LLW	1.5	50.0	51.5	33.3	1.7
3K27	Active Effluent Ion Exchange Material	LLW	3.0	1.4	4.4	13.7	0.7
3K28	Miscellaneous Activated Components - Tie Bar Ends & Nuts	ILW	1.8	0.9	2.7	4.4	0.2
3K29	Bypass Blowdown Filters	ILW	10.0	9.5	19.5	34.0	1.7
3K30	Miscellaneous Activated Components & Fuel Stringer Debris - Debris Vault 2	ILW	75.0	32.4	107.4	176	8.8
3K110	Care & Maintenance Preparations: Stainless Steel LLW	LLW	0	944.5	944.5	462	23.7
3K111	Care & Maintenance Preparations: Mild Steel LLW	LLW	0	3,305.3	3,305.3	2,970	152
3K112	Care & Maintenance Preparations: Secondary Waste LLW	LLW	0	1,332.3	1,332.3	288	14.7
3K113	Care & Maintenance Preparations: Miscellaneous Metals and Materials LLW	LLW	0	1,411.4	1,411.4	1,060	54.5
3K114	Care & Maintenance: Miscellaneous Materials LLW	LLW	0	99.6	99.6	28.9	1.5
3K311	Decommissioning Stage 3: Stainless Steel (Reactor) ILW	ILW	0	219.0	219.0	359	18.0
3K312	Decommissioning Stage 3: Mild Steel (Reactor) ILW	ILW	0	209.0	209.0	343	17.1
3K313	Decommissioning Stage 3: Graphite ILW	ILW	0	2,464.8	2,464.8	3,940	197
3K314	Decommissioning Stage 3: Stainless Steel (Reactor) LLW	LLW	0	1,221.0	1,221.0	387	19.9
3K315	Decommissioning Stage 3: Mild Steel (Reactor) LLW	LLW	0	1,422.9	1,422.9	451	23.2
3K317	Decommissioning Stage 3: Graphite LLW	LLW	0	453.0	453.0	604	30.2
3K318	Stage 3 Decommissioning: Concrete (Reactor and Non-Reactor) LLW	LLW	0	1,609.4	1,609.4	2,130	109
3K319	Stage 3 Decommissioning: Miscellaneous Metals and Materials (Reactor and Non-Reactor) LLW	LLW	0	151.7	151.7	253	13.0
3K320	Stage 3 Decommissioning: Secondary Wastes LLW	LLW	0	1,923.5	1,923.5	566	29.0
EDF Energy - EDF Energy - Heysham 1							
3L01	Pond Water Ion Exchange Material	ILW	11.5	4.1	15.6	44.5	78.0
3L02	Pond Water Filtration Sludge	ILW	3.4	2.1	5.5	9.5	16.6
3L03	Miscellaneous Contaminated Items	ILW	0	4.5	4.5	10.7	18.8
3L04	Desiccant	ILW	0	49.5	49.5	0	0
3L09	Miscellaneous Activated Components - Debris Vault 1	ILW	10.6	6.0	16.6	27.2	1.4
3L11	Dry Fuel Route LLW	LLW	13.3	74.2	87.5	56.7	2.9

Site Owner – Waste Custodian - Site		Waste type	Reported volume (m^3)			When wastes at 1.4.2019 and future arisings are packaged	
Stream Identifier	Title		At 1.4.2019	Future arisings	Total	Packaged volume (m^3)	Number of packages[(1)]
3L12	Wet Fuel Route LLW	LLW	10.4	215.2	225.6	48.7	2.5
3L13	Gas Circulators LLW	LLW	31.2	124.0	155.2	100	5.2
3L14	Vacuum Cleaners LLW	LLW	0	1.8	1.8	1.1	0.1
3L15	Active Effluent Ion Exchange Material	LLW	6.0	2.2	8.2	25.5	1.3
3L16	Active Effluent Filtration Sludges	LLW	49.9	24.2	74.1	0	0
3L17	Gas Circulator Maintenance Sludge	ILW	1.5	0.5	2.0	3.4	5.9
3L18	Miscellaneous Sludges	LLW	1.3	0	1.3	1.7	0.1
3L19	Catalyst	ILW	5.0	1.6	6.6	14.1	0.7
3L20	Miscellaneous Activated Components - Debris Vault 3	ILW	0.1	3.3	3.4	5.6	0.3
3L21	Miscellaneous Activated Components - Spalled Oxide and Dust	ILW	0.2	0.9	1.1	1.8	0.1
3L22	Fuel Stringer Debris - Debris Vault 4	ILW	170.6	63.1	233.7	384	19.2
3L23	Miscellaneous Activated Components - Tie Bar Ends & Nuts	ILW	0.3	0.7	1.0	1.6	0.1
3L24	Bypass Blowdown Filters	ILW	8.7	9.5	18.2	31.7	1.6
3L25	Miscellaneous Activated Components & Fuel Stringer Debris - Debris Vault 2	ILW	72.5	30.5	103.0	169	8.4
3L110	Care & Maintenance Preparations: Stainless Steel LLW	LLW	0	945.3	945.3	462	23.7
3L111	Care & Maintenance Preparations: Mild Steel LLW	LLW	0	3,482.6	3,482.6	3,130	161
3L112	Care & Maintenance Preparations: Secondary Waste LLW	LLW	0	1,102.6	1,102.6	238	12.2
3L113	Care & Maintenance Preparations: Miscellaneous Metals and Materials LLW	LLW	0	1,346.2	1,346.2	1,010	52.0
3L114	Care & Maintenance: Miscellaneous Materials LLW	LLW	0	95.8	95.8	27.8	1.4
3L311	Decommissioning Stage 3: Stainless Steel (Reactor) ILW	ILW	0	219.1	219.1	360	18.0
3L312	Decommissioning Stage 3: Mild Steel (Reactor) ILW	ILW	0	209.0	209.0	343	17.1
3L313	Decommissioning Stage 3: Graphite ILW	ILW	0	2,464.7	2,464.7	3,940	197
3L314	Decommissioning Stage 3: Stainless Steel (Reactor) LLW	LLW	0	1,221.0	1,221.0	387	19.9
3L315	Decommissioning Stage 3: Mild Steel (Reactor) LLW	LLW	0	1,423.0	1,423.0	452	23.2
3L317	Decommissioning Stage 3: Graphite LLW	LLW	0	453.0	453.0	604	30.2
3L318	Stage 3 Decommissioning: Concrete (Reactor and Non-Reactor) LLW	LLW	0	1,600.4	1,600.4	2,120	108
3L319	Stage 3 Decommissioning: Miscellaneous Metals and Materials (Reactor and Non-Reactor) LLW	LLW	0	151.9	151.9	253	13.0

Site Owner – Waste Custodian - Site		Waste type	Reported volume (m^3)			When wastes at 1.4.2019 and future arisings are packaged	
Stream Identifier	Title		At 1.4.2019	Future arisings	Total	Packaged volume (m^3)	Number of packages[(1)]
3L320	Stage 3 Decommissioning: Secondary Wastes LLW	LLW	0	1,925.3	1,925.3	566	29.0
EDF Energy - EDF Energy - Heysham 2							
3M01	Pond Ion Exchange Material	ILW	2.5	1.1	3.6	10.2	17.8
3M02	Pond Water Filter Sludge	ILW	8.4	0.8	9.2	15.8	27.7
3M03	Miscellaneous Contaminated Items	ILW	7.1	7.3	14.4	35.7	62.6
3M04	Desiccant	ILW	34.0	80.0	114.0	0	0
3M08	Active Effluent Ion Exchange Material	ILW	0.5	2.8	3.3	9.3	16.3
3M09	Active Effluent Filters Sludge	LLW	1.8	9.2	11.0	20.6	1.1
3M10	Oily Sludge	LLW	2.4	3.0	5.4	10.2	0.5
3M13	Wet Fuel Route - Low Level Waste	LLW	1.6	340.0	341.6	221	11.3
3M14	Gas Circulator Maintenance - Low Level Waste	LLW	5.0	10.4	15.4	10.0	0.5
3M15	Waste Sorting - Low Level Waste	LLW	6.6	31.8	38.4	24.9	1.3
3M17	Catalysts	ILW	0	13.0	13.0	27.9	1.4
3M19	Reactors and Dry Fuel Route - Low Level Waste	LLW	19.8	356.2	376.0	243	12.5
3M20	Miscellaneous Sludges LLW	LLW	2.3	0	2.3	3.0	0.2
3M22	Miscellaneous Activated Components & Fuel Stringer Debris	ILW	192.0	148.0	340.0	558	27.9
3M110	Care & Maintenance Preparations: Stainless Steel LLW	LLW	0	430.8	430.8	496	25.4
3M111	Care & Maintenance Preparations: Mild Steel LLW	LLW	0	2,985.8	2,985.8	1,380	70.9
3M112	Care & Maintenance Preparations: Secondary Waste LLW	LLW	0	1,622.8	1,622.8	350	18.0
3M113	Care & Maintenance Preparations: Miscellaneous Metals and Materials LLW	LLW	0	1,286.0	1,286.0	1,160	59.3
3M114	Care & Maintenance: Miscellaneous Materials LLW	LLW	0	105.4	105.4	30.6	1.6
3M311	Decommissioning stage 3: Stainless Steel (Reactor) ILW	ILW	0	141.0	141.0	231	11.6
3M312	Decommissioning Stage 3: Mild Steel (Reactor) ILW	ILW	0	583.0	583.0	957	47.8
3M313	Decommissioning Stage 3: Graphite ILW	ILW	0	2,131.0	2,131.0	3,520	176
3M314	Decommissioning Stage 3: Stainless Steel (Reactor) LLW	LLW	0	1,120.0	1,120.0	355	18.2
3M315	Decommissioning Stage 3: Mild Steel (Reactor) LLW	LLW	0	3,278.0	3,278.0	1,040	53.3
3M317	Decommissioning Stage 3: Graphite LLW	LLW	0	654.0	654.0	872	43.6
3M318	Stage 3 decommissioning: Concrete (Reactor and Non-Reactor) LLW	LLW	0	2,788.7	2,788.7	3,690	189

Site Owner – Waste Custodian - Site		Waste type	Reported volume (m^3)			When wastes at 1.4.2019 and future arisings are packaged	
Stream Identifier	Title		At 1.4.2019	Future arisings	Total	Packaged volume (m^3)	Number of packages[(1)]
3M319	Stage 3 Decommissioning: Miscellaneous Metals and Materials (Reactor and Non-Reactor) LLW	LLW	0	598.9	598.9	997	51.1
3M320	Stage 3 Decommissioning: Secondary Wastes LLW	LLW	0	1,964.6	1,964.6	578	29.6
EDF Energy - EDF Energy - Hinkley Point B							
3N01	Ion Exchange Material	ILW	7.7	6.0	13.7	39.1	68.5
3N02	Sludge	ILW	12.0	2.4	14.4	24.9	43.6
3N04	Desiccants and Catalysts	ILW	200.9	52.8	253.7	413	21.2
3N12	Gas Circulator LLW	LLW	28.4	105.0	133.4	28.8	1.5
3N13	Wet Fuel Route LLW	LLW	25.3	292.0	317.3	68.5	3.5
3N14	General Reactor LLW	LLW	21.0	559.2	580.2	125	6.4
3N35	Miscellaneous Sludges	LLW	4.0	0	4.0	5.3	0.3
3N37	Miscellaneous Contaminated Items	ILW	0	4.4	4.4	10.7	18.7
3N38	Miscellaneous Activated Components & Fuel Stringer Debris - Debris Vault 1	ILW	603.0	93.9	696.9	1,140	57.1
3N39	Miscellaneous Activated Components & Fuel Stringer Debris - Debris Vault 2	ILW	34.2	14.0	48.2	79.1	3.9
3N40	Miscellaneous Activated Components - Debris Vault 3	ILW	3.4	0	3.4	5.6	0.3
3N41	Miscellaneous Activated Components - Debris Vault 4	ILW	4.7	1.5	6.2	10.2	0.5
3N42	Gas Driers/Gas Bypass area	LLW	11.3	16.2	27.5	17.8	0.9
3N43	Combustible Radioactive Waste Disposal (CRAWD) including Decontamination Centre.	LLW	5.2	24.6	29.8	17.3	0.9
3N110	Care & Maintenance Preparations: Stainless Steel LLW	LLW	0	259.1	259.1	298	15.3
3N111	Care & Maintenance Preparations: Mild Steel LLW	LLW	0	1,806.5	1,806.5	836	42.9
3N112	Care & Maintenance Preparations: Secondary Waste LLW	LLW	0	1,180.7	1,180.7	255	13.1
3N113	Care & Maintenance Preparations: Secondary Waste LLW	LLW	0	1,155.0	1,155.0	1,040	53.2
3N114	Care & Maintenance Preparations: Secondary Waste LLW	LLW	0	99.5	99.5	28.9	1.5
3N311	Decommissioning Stage 3: Stainless Steel (Reactor) ILW	ILW	0	194.3	194.3	319	15.9
3N312	Decommissioning Stage 3: Mild Steel (Reactor) ILW	ILW	0	591.3	591.3	971	48.5
3N313	Decommissioning Stage 3: Graphite ILW	ILW	0	1,830.5	1,830.5	3,260	163
3N314	Decommissioning Stage 3: Stainless Steel (Reactor) LLW	LLW	0	1,269.6	1,269.6	403	20.7

Site Owner – Waste Custodian - Site		Waste type	Reported volume (m^3)			When wastes at 1.4.2019 and future arisings are packaged	
Stream Identifier	Title		At 1.4.2019	Future arisings	Total	Packaged volume (m^3)	Number of packages[(1)]
3N315	Decommissioning Stage 3: Mild Steel (Reactor) LLW	LLW	0	2,406.4	2,406.4	764	39.2
3N317	Decommissioning Stage 3: Graphite LLW	LLW	0	466.6	466.6	622	31.1
3N318	Stage 3 Decommissioning: Concrete (Reactor and Non-Reactor) LLW	LLW	0	1,020.0	1,020.0	1,350	69.1
3N319	Stage 3 Decommissioning: Miscellaneous Metals and Materials (Reactor and Non-Reactor) LLW	LLW	0	1,148.7	1,148.7	1,910	98.1
3N320	Stage 3 Decommissioning: Secondary Wastes LLW	LLW	0	1,610.7	1,610.7	474	24.3
EDF Energy - EDF Energy - Sizewell B							
3S03	Spent Cartridge Filters (ILW)	ILW	3.5	12.1	15.6	187	312
3S04	Sludges and Concentrates	LLW	0	31.0	31.0	58.1	3.0
3S05	Miscellaneous Contaminated Items	ILW	24.5	267.2	291.7	674	1,180
3S06	Spent Resins (LLW)	LLW	25.4	95.8	121.2	313	16.0
3S07	Station Maintenance and Operations LLW	LLW	134.7	1,034.8	1,169.5	324	16.6
3S08	Secondary Cartridge Filters (LLW)	LLW	2.2	46.8	49.0	101	5.2
3S09	Miscellaneous Activated Components	ILW	8.8	31.1	39.9	65.5	3.3
3S12	CVCS Resins and Spent Resins (ILW)	ILW	10.2	-10.2	0	0	0
3S12/C	CVCS Resins and Spent Resins (ILW) - Conditioned waste	ILW	26.0	49.1	75.1	210	159
3S101	Decommissioning: Station Maintenance LLW	LLW	0	544.5	544.5	158	8.1
3S301	Decommissioning: Mild Steel LLW	LLW	0	1,810.2	1,810.2	68.2	3.5
3S302	Decommissioning: Mild Steel ILW	ILW	0	214.5	214.5	499	24.9
3S303	Decommissioning: Concrete LLW	LLW	0	227.4	227.4	693	35.5
3S304	Decommissioning: Secondary Wastes & Miscellaneous Materials LLW	LLW	0	958.3	958.3	0	0
3S305	Decommissioning: Stainless Steel LLW	LLW	0	7,505.8	7,505.8	78.1	4.0
3S306	Decommissioning: Stainless Steel ILW	ILW	0	198.2	198.2	323	83.0
3S308	SZB Dry Store - Shield & Transfer Casks	LLW	0	8,425.3	8,425.3	11,100	571
3S309	Dry Store - MPC Fuel casks	LLW	0	1,604.0	1,604.0	2,120	109
3S310	Fuel Pond Solid Absorber Assemblies	ILW	0	31.2	31.2	64.0	3.3
EDF Energy - EDF Energy - Flasks & Flatrols							
3Z202	AGR Fuel Transport Flasks	LLW	0	387.6	387.6	0	0
3Z203	Rail Flatrols	LLW	57.9	0	57.9	0	0

Site Owner – Waste Custodian - Site		Waste type	Reported volume (m^3)			When wastes at 1.4.2019 and future arisings are packaged	
Stream Identifier	Title		At 1.4.2019	Future arisings	Total	Packaged volume (m^3)	Number of packages[(1)]
EDF Energy - EDF Energy - Hunterston B							
4B01	Ion Exchange Resin and Sand	ILW	17.4	6.4	23.8	68.0	119
4B04	Sludge	ILW	34.5	5.6	40.1	95.3	167
4B06	Desiccants and Catalysts	ILW	260.0	34.0	294.0	478	24.5
4B12	Wet Fuel Route LLW	LLW	3.0	272.1	275.1	178	9.1
4B13	General Reactor LLW	LLW	48.2	826.6	874.8	567	29.1
4B14	Laundry LLW	LLW	16.2	150.0	166.2	35.9	1.8
4B15	Miscellaneous Sludges	LLW	5.9	0	5.9	0	0
4B17	Miscellaneous Contaminated Items	ILW	4.0	4.4	8.4	20.4	35.7
4B18	Miscellaneous Activated Components - Debris Vault 1	ILW	534.3	132.4	666.7	1,090	54.6
4B19	Miscellaneous Activated Components - Debris Vault 2	ILW	123.9	12.9	136.8	224	11.2
4B20	Miscellaneous Activated Components - Debris Vault 3	ILW	9.1	0	9.1	15.0	0.7
4B21	Miscellaneous Activated Components - Debris Vault 4	ILW	0.4	1.2	1.6	2.7	0.1
4B110	Care & Maintenance Preparations: Stainless Steel LLW	LLW	0	216.5	216.5	249	12.8
4B111	Care & Maintenance Preparations: Mild Steel LLW	LLW	0	1,558.8	1,558.8	721	37.0
4B112	Care & Maintenance Preparations: Secondary Waste LLW	LLW	0	1,234.2	1,234.2	266	13.7
4B113	Care & Maintenance Preparations: Miscellaneous Metals and Materials LLW	LLW	0	1,135.6	1,135.6	1,020	52.4
4B114	Care & Maintenance: Miscellaneous Materials LLW	LLW	0	99.3	99.3	28.8	1.5
4B311	Decommissioning Stage 3: Stainless Steel (Reactor) ILW	ILW	0	194.3	194.3	319	15.9
4B312	Decommissioning Stage 3: Mild Steel (Reactor) ILW	ILW	0	591.3	591.3	971	48.5
4B313	Decommissioning Stage 3: Graphite ILW	ILW	0	1,830.5	1,830.5	3,260	163
4B314	Decommissioning Stage 3: Stainless Steel (Reactor) LLW	LLW	0	1,269.7	1,269.7	403	20.7
4B315	Decommissioning Stage 3: Mild Steel (Reactor) LLW	LLW	0	2,406.3	2,406.3	763	39.2
4B317	Decommissioning Stage 3: Graphite LLW	LLW	0	466.5	466.5	622	31.1
4B318	Stage 3 Decommissioning: Concrete (Reactor and Non-Reactor) LLW	LLW	0	1,020.0	1,020.0	1,350	69.2
4B319	Stage 3 Decommissioning: Miscellaneous Metals and Materials (Reactor and Non-Reactor) LLW	LLW	0	1,049.8	1,049.8	1,750	89.6
4B320	Stage 3 Decommissioning: Secondary Wastes LLW	LLW	0	1,945.4	1,945.4	572	29.4

Site Owner – Waste Custodian - Site		Waste type	Reported volume (m^3)			When wastes at 1.4.2019 and future arisings are packaged	
Stream Identifier	Title		At 1.4.2019	Future arisings	Total	Packaged volume (m^3)	Number of packages[(1)]
EDF Energy - EDF Energy - Torness							
4C01	Catalyst	ILW	0	9.4	9.4	20.2	1.0
4C02	Desiccant	ILW	0	74.0	74.0	0	0
4C03	Pond Water Filtration Resin	ILW	6.7	5.2	11.9	34.0	59.6
4C06	Active Effluent Filtration Resin	ILW	2.3	1.5	3.8	10.8	19.0
4C12	Miscellaneous Activated Components & Fuel Stringer Debris	ILW	240.8	122.0	362.8	595	29.7
4C13	Active Effluent and Workshop LLW	LLW	7.4	451.6	459.0	99.1	5.1
4C16	Dry Fuel Route LLW	LLW	5.4	488.5	493.8	107	5.5
4C17	Wet Fuel Route LLW	LLW	0.4	360.3	360.7	234	12.0
4C18	Active Effluent Filtration Sludge	LLW	3.4	9.2	12.6	23.7	1.2
4C19	Pond Water Filtration Sludge	ILW	1.8	0.8	2.5	4.3	7.6
4C20	Oily Sludge	LLW	0.2	0.1	0.3	0.6	<0.1
4C23	Miscellaneous Contaminated Items	ILW	10.3	9.0	19.3	46.9	82.1
4C24	Gas Bypass Area Waste - LLW	LLW	2.3	65.0	67.3	7.7	0.4
4C110	Care & Maintenance Preparations: Stainless Steel LLW	LLW	0	505.8	505.8	582	29.8
4C111	Care & Maintenance Preparations: Mild Steel LLW	LLW	0	3,072.1	3,072.1	1,420	73.0
4C112	Care & Maintenance Preparations: Secondary Waste LLW	LLW	0	1,753.6	1,753.6	379	19.4
4C113	Care & Maintenance Preparations: Miscellaneous Metals and Materials LLW	LLW	0	1,445.2	1,445.2	1,300	66.6
4C114	Care & Maintenance: Miscellaneous Materials LLW	LLW	0	96.1	96.1	27.9	1.4
4C311	Decommissioning stage 3: Stainless Steel (Reactor) ILW	ILW	0	141.1	141.1	232	11.6
4C312	Decommissioning Stage 3: Mild Steel (Reactor) ILW	ILW	0	530.9	530.9	871	43.5
4C313	Decommissioning Stage 3: Graphite ILW	ILW	0	2,131.0	2,131.0	3,520	176
4C314	Decommissioning Stage 3: Stainless Steel (Reactor) LLW	LLW	0	1,120.0	1,120.0	355	18.2
4C315	Decommissioning Stage 3: Mild Steel (Reactor) LLW	LLW	0	3,278.0	3,278.0	1,040	53.3
4C317	Decommissioning Stage 3: Graphite LLW	LLW	0	654.0	654.0	872	43.6
4C318	Stage 3 decommissioning: Concrete (Reactor and Non-Reactor) LLW	LLW	0	2,788.8	2,788.8	3,690	189
4C319	Stage 3 Decommissioning: Miscellaneous Metals and Materials (Reactor and Non-Reactor) LLW	LLW	0	595.6	595.6	992	50.9
4C320	Stage 3 Decommissioning: Secondary Wastes LLW	LLW	0	2,018.6	2,018.6	594	30.5

Site Owner – Waste Custodian - Site		Waste type	Reported volume (m^3)			When wastes at 1.4.2019 and future arisings are packaged	
Stream Identifier	Title		At 1.4.2019	Future arisings	Total	Packaged volume (m^3)	Number of packages[(1)]
NDA - Dounreay Site Restoration Limited - Dounreay							
5B01	PFR Raffinate	ILW	166.2	0	166.2	418	732
5B01/C	Cemented PFR Raffinate	ILW	62.5	366.5	429.0	490	858
5B02	Low Alpha RHILW	ILW	0	480.1	480.1	527	923
5B03	Operational RHILW	ILW	142.4	0	142.4	271	475
5B04/C	Cemented MTR Raffinate	ILW	2,432.0	0	2,432.0	2,780	4,860
5B05/C	Cemented DFR Raffinate	ILW	439.0	0	439.0	501	878
5B15	Compacted LLW	LLW	6,415.4	0	6,415.4	12,500	642
5B16	Bulk Operational LLW	LLW	2,877.8	0	2,877.8	5,430	272
5B19	Uranium Contaminated Materials	ILW	63.4	0	63.4	36.2	63.4
5B20	Contaminated Solvent and Oils	LLW	7.5	86.0	93.5	109	5.6
5B22	ADU Floc	ILW	164.0	16.0	180.0	411	720
5B24	Operational CHILW	ILW	769.8	0	769.8	440	770
5B25	ILW Shaft (Contents)	ILW	0	738.8	738.8	811	1,420
5B26	LLLETP Sludge	LLW	16.0	8.0	24.0	46.8	2.4
5B27	Thorium Nitrate	ILW	12.4	0	12.4	50.5	88.4
5B28	Graphite/THTR Waste	ILW	88.6	0	88.6	253	443
5B29	LSA Scale	ILW	235.0	0	235.0	1,740	147
5B32	Irradiated Thorium Fuel Pin Pieces	ILW	<0.1	0	<0.1	3.3	5.7
5B33	PFR Mixer Breeder Sections	ILW	5.0	0.2	5.2	14.8	26.0
5B34	DFR Breeder Fuel Removal Waste	ILW	8.2	3.8	12.0	51.3	89.8
5B301	Prototype Fast Reactor LLW	LLW	0	3,581.0	3,581.0	11,500	545
5B302	Prototype Fast Reactor ILW	ILW	7.0	206.0	213.0	1,350	682
5B303	Dounreay Fast Reactor LLW	LLW	0	2,879.0	2,879.0	5,610	288
5B304	Dounreay Fast Reactor ILW	ILW	0	256.0	256.0	468	161
5B305	Site Drains and Ducts LLW	LLW	0	136.0	136.0	265	13.6
5B306	Site Drains and Ducts ILW	ILW	0	8.0	8.0	8.6	15.1
5B307	PFR Reprocessing Plant LLW	LLW	0	865.0	865.0	1,690	86.5
5B308	PFR Reprocessing Plant ILW	ILW	17.0	108.0	125.0	135	236
5B309	Materials Test Reactor LLW	LLW	0	364.0	364.0	710	36.4

Site Owner – Waste Custodian - Site		Waste type	Reported volume (m^3)			When wastes at 1.4.2019 and future arisings are packaged	
Stream Identifier	Title		At 1.4.2019	Future arisings	Total	Packaged volume (m^3)	Number of packages[(1)]
5B310	Materials Test Reactor ILW	ILW	0	15.0	15.0	35.6	3.0
5B311	Development Laboratory LLW	LLW	0	196.0	196.0	382	19.6
5B312	Development Laboratory ILW	ILW	80.3	2.0	82.3	88.7	155
5B313	HAL Store and Evaporation Plant LLW	LLW	0	442.0	442.0	862	44.2
5B314	HAL Store and Evaporation Plant ILW	ILW	0.1	129.0	129.1	266	22.4
5B315	MTR Reprocessing Plant LLW	LLW	0	355.0	355.0	692	35.5
5B317	Pu Laboratory ILW	ILW	18.2	0	18.2	10.4	18.2
5B323	Decommissioning Contaminated Soil	LLW	0	14,222.0	14,222.0	27,700	1,420
5B325	DFR Ion Exchange Columns	ILW	1.6	0.4	2.0	5.7	10.0
5B326	MTR Reprocessing Plant ILW	ILW	2.0	70.5	72.5	138	242
5B329	CHILW Retrievable Drum Store LLW	LLW	0	4.0	4.0	7.8	0.4
5B330	CHILW Retrievable Drum Store ILW	ILW	0	0.8	0.8	0.4	0.8
5B332	RHILW Retrievable Drum Store ILW	ILW	8.8	0	8.8	9.5	16.6
5B333	DCP Vault Store and Extension LLW	LLW	0	1,417.1	1,417.1	2,760	142
5B334	DCP, Vault Store and Extension ILW	ILW	8.8	45.0	53.8	102	179
5B335	Analytical Laboratories LLW	LLW	0	971.0	971.0	1,890	97.1
5B336	Analytical Laboratories ILW	ILW	24.0	35.5	59.5	64.1	112
5B338	Decontamination and Waste Services ILW	ILW	12.4	0	12.4	7.1	12.4
5B339	PIE Facility LLW	LLW	0	694.0	694.0	1,350	69.4
5B340	PIE Facility ILW	ILW	61.7	0.6	62.3	67.1	118
5B341	Pu Fuels Examination Facility LLW	LLW	0	335.0	335.0	653	33.5
5B342	Pu Fuels Examination Facility ILW	ILW	62.5	42.9	105.4	188	329
5B343	Other Facilities Decommissioning LLW	LLW	0	677.0	677.0	1,320	67.7
5B344	Other Facilities Decommissioning ILW	ILW	12.0	16.9	28.9	21.7	38.1
5B345	Service Corridor and Tank Farm LLW	LLW	0	254.0	254.0	495	25.4
5B348	Effluent Treatment Plant LLW	LLW	0	1,240.0	1,240.0	2,420	124
5B349	Uranium Recovery Plant LLW	LLW	0	1,232.0	1,232.0	2,400	123
5B350	Uranium Recovery Plant ILW	ILW	6.0	0.2	6.2	3.5	6.2
5B351	Changerooms LLW	LLW	0	38.0	38.0	74.1	3.8

Site Owner – Waste Custodian - Site		Waste type	Reported volume (m^3)			When wastes at 1.4.2019 and future arisings are packaged	
Stream Identifier	Title		At 1.4.2019	Future arisings	Total	Packaged volume (m^3)	Number of packages[(1)]
5B352	Waste Receipt, Assay, Characterisation and Supercompaction Facility LLW	LLW	0	55.0	55.0	68.9	3.5
5B353	Active Laundry	LLW	0	39.0	39.0	76.1	3.9
5B354	PFR SDP Ion Exchange Columns	ILW	3.8	0.4	4.2	12.0	21.1
5B355	Demolition LLW	LLW	2,382.1	11,004.0	13,386.1	13,400	0
5B356	PFR Absorbers	ILW	0	1.3	1.3	18.3	32.0
5B357	DFR Pond Ion Exchange Columns	ILW	1.2	0.2	1.4	4.0	7.0
5B358	Previously Disposed LLW to be Retrieved	LLW	0	36,890.0	36,890.0	71,900	3,690
5B359	Contaminated Soil ILW	ILW	0	102.0	102.0	210	17.7
5B360	Contaminated Oils and Solvents ILW	ILW	153.0	21.0	174.0	397	696
5B363	Effluent Treatment Plant ILW	ILW	0	3.0	3.0	3.7	6.4
5B364/C	Decommissioning LLW Conditioned Supercompacted	LLW	824.7	0	824.7	1,030	53.0
5B365/C	Decommissioning LLW Conditioned Bulk	LLW	529.0	0	529.0	663	34.0
5B366/C	Decommissioning LLW Conditioned Mixed (Supercompacted + Bulk)	LLW	2,629.6	0	2,629.6	3,300	169
NDA - Magnox Limited - Harwell							
5C08	ILW Concrete Lined Drums	ILW	635.2	0	635.2	778	1,360
5C18/C	Encapsulated ILW Liquors	ILW	16.4	0	16.4	23.4	41.0
5C30	Harwell Remote Handled ILW	ILW	55.8	0	55.8	79.6	139
5C39	Solid Waste Complex Operational LLW	LLW	29.5	942.7	972.2	266	5.1
5C41	Operational LLW Sludge	LLW	9.0	0	9.0	48.8	2.5
5C45	GLEEP Fuel	ILW	1.9	0	1.9	32.5	56.9
5C46	Uranic Residues	ILW	8.1	0	8.1	0	0
5C47	Organic Wastes	LLW	2.4	1.6	4.0	0	0
5C50	Dragon Fuel	ILW	3.3	0	3.3	139	244
5C52	Processed Remote Handled ILW	ILW	213.2	0	213.2	304	533
5C54	Zenith Fuel	ILW	<0.1	0	<0.1	0	0
5C55	Miscellaneous Legacy LLW	LLW	141.0	0	141.0	275	14.1
5C56	Harwell LLW Sources	LLW	2.0	0	2.0	2.5	0.1
5C300	Land Remediation VLLW and LA-LLW	VLLW	431.9	9,652.7	10,084.6	4,440	-
5C301	BEPO Reactor Decommissioning LLW	LLW	0	185.0	185.0	148	7.6

Site Owner – Waste Custodian - Site		Waste type	Reported volume (m^3)			When wastes at 1.4.2019 and future arisings are packaged	
Stream Identifier	Title		At 1.4.2019	Future arisings	Total	Packaged volume (m^3)	Number of packages[(1)]
5C302	BEPO Reactor Decommissioning ILW	ILW	0	561.0	561.0	2,300	194
5C303	Radiochemical Laboratory Decommissioning LLW	LLW	236.2	708.8	945.0	332	17.0
5C304	Radiochemical Laboratory Decommissioning CHILW	ILW	0	34.0	34.0	234	19.7
5C305	DIDO Reactor Decommissioning LLW	LLW	0	262.0	262.0	460	23.5
5C306	DIDO Reactor Decommissioning ILW	ILW	0	60.0	60.0	345	29.1
5C307	PLUTO Reactor Decommissioning LLW	LLW	0	262.0	262.0	460	23.5
5C308	PLUTO Reactor Decommissioning ILW	ILW	0	47.0	47.0	236	19.9
5C309	Minor Facilities Decommissioning LLW	LLW	19.1	128.9	148.0	96.2	0
5C310	Solid Waste Complex Decommissioning ILW	ILW	0	25.0	25.0	169	14.3
5C312	Western Storage Area LLW	LLW	2.0	0	2.0	2.0	0
5C313	B466 Ponds Decommissioning LLW	LLW	4.0	7.5	11.5	22.4	1.2
5C314	LETP Decommissioning LLW	LLW	855.6	0	855.6	804	0.9
5C315	Active Handling Facility Decommissioning LLW	LLW	0	420.0	420.0	256	0
5C316	Solid Waste Complex Decommissioning LLW	LLW	0	2,771.0	2,771.0	2,690	0
5C317	Harwell Contact Handled ILW Drums	ILW	268.4	0	268.4	329	576
5C318	Harwell Remote Handled ILW - WRATs	ILW	17.9	0	17.9	25.6	44.8
5C319	Ripple Crates	LLW	20.2	0	20.2	39.4	2.0
5C320/C	Encapsulated ILW Sludges	ILW	5.2	0	5.2	7.4	13.0
5C321	Active Handling Facility Decommissioning ILW	ILW	0	1.9	1.9	15.4	1.3
5C322	Land Remediation LLW	LLW	0	25.0	25.0	48.8	2.5
5C323	LETP Land Remediation VLLW and LA-LLW	VLLW	0	4,188.8	4,188.8	4,180	-
5C324	LETP Land Remediation LLW	LLW	0	178.0	178.0	178	0
5C325	Radiochemical Laboratory Decommissioning VLLW and LA-LLW	VLLW	0	2,628.0	2,628.0	2,630	-
5C326	Active Handling Facility Decommissioning VLLW and LA-LLW	VLLW	0	480.0	480.0	110	-
5C327	Solid Waste Complex Decommissioning VLLW and LA-LLW	VLLW	0	869.0	869.0	869	-
5C328	BEPO Reactor Decommissioning VLLW and LA-LLW	VLLW	38.0	5,020.0	5,058.0	5,060	-
5C329	DIDO Reactor Decommissioning VLLW and LA-LLW	VLLW	0	455.0	455.0	455	-
5C330	PLUTO Reactor Decommissioning VLLW and LA-LLW	VLLW	0	454.0	454.0	454	-
5C331	Minor Facilities Decommissioning VLLW and LA-LLW	VLLW	0	6,653.0	6,653.0	6,650	-
5C332	Harwell Care & Maintenance VLLW and LA-LLW	VLLW	2.2	21.8	24.0	24.0	-

Site Owner – Waste Custodian - Site		Waste type	Reported volume (m^3)			When wastes at 1.4.2019 and future arisings are packaged	
Stream Identifier	Title		At 1.4.2019	Future arisings	Total	Packaged volume (m^3)	Number of packages[(1)]
5C333	Harwell Care & Maintenance LLW	LLW	0.4	1.6	2.0	3.9	0.2
5C334	Replacement Effluent Treatment Plant LLW	LLW	4.2	20.8	25.0	48.8	2.5
5C335	LETP HLA Tanks ILW	ILW	12.6	0	12.6	15.3	26.8
5C336	Radiologically Contaminated Mercury	LLW	2.0	0	2.0	0	0
NDA - Magnox Limited - Winfrith							
5G01	Miscellaneous Reactor Hardware ILW	ILW	0.8	0	0.8	1.1	2.0
5G03/C	Conditioned SGHWR Sludges	LLW	640.8	0	640.8	1,970	73.7
5G04	Winfrith ILW Sources	ILW	0.1	0	0.1	0	0
5G10	ILW Concrete-lined Drums	ILW	2.0	0	2.0	2.5	4.4
5G11	LLW Concrete Lined Drums	LLW	2.5	0	2.5	4.9	0.3
5G21	Organic Wastes	LLW	0.5	2.0	2.5	0	0
5G23	Thorium Metal	ILW	1.0	0	1.0	57.1	100
5G24	Winfrith LLW Sources	LLW	2.0	0	2.0	19.5	1.0
5G25	DRAGON High Active Components	ILW	0.2	0	0.2	0	0
5G300	Land Remediation VLLW and LA-LLW	VLLW	0	1,268.0	1,268.0	1,270	-
5G301	SGHWR Decommissioning LLW	LLW	0	4,994.7	4,994.7	5,670	155
5G302	SGHWR Decommissioning ILW	ILW	0	40.0	40.0	1,040	87.9
5G303	DRAGON Reactor Decommissioning LLW	LLW	0	71.3	71.3	74.6	0.6
5G304	DRAGON Reactor Decommissioning ILW	ILW	0	22.0	22.0	293	24.7
5G307	Minor Facilities Decommissioning LLW	LLW	0	2,445.6	2,445.6	2,090	1.2
5G308	Legacy Decommissioning LLW	LLW	190.0	0	190.0	196	2.7
United Kingdom Atomic Energy Authority - United Kingdom Atomic Energy Authority - Culham							
5H06	JET Incinerable	LLW	55.8	48.0	103.8	0	0
5H07	JET LLW	LLW	84.6	5.0	89.6	113	8.7
5H10	JET LA-LLW	LLW	30.0	6.0	36.0	36.0	0
5H11	UKAEA ILW Non-Incinerable	ILW	0	2.0	2.0	2.5	4.3
5H12	UKAEA Incinerable	LLW	0	210.0	210.0	0	0
5H13	UKAEA LA-LLW	LLW	0	24.0	24.0	24.0	0
5H14	UKAEA LLW	LLW	0	24.0	24.0	30.2	2.3

Site Owner – Waste Custodian - Site		Waste type	Reported volume (m^3)			When wastes at 1.4.2019 and future arisings are packaged	
Stream Identifier	Title		At 1.4.2019	Future arisings	Total	Packaged volume (m^3)	Number of packages[(1)]
5H16	H3AT Incinerable	LLW	0	111.0	111.0	0	0
5H17	H3AT LA-LLW	LLW	0	60.0	60.0	60.0	0
5H18	H3AT LLW	LLW	0	60.0	60.0	75.5	5.8
5H301	JET Decommissioning Non-Activated ILW	ILW	0	8.2	8.2	23.7	2.0
5H302	JET Decommissioning Tritiated Non-Activated LLW	LLW	0	804.0	804.0	745	8.3
5H304	JET Decommissioning Tritiated Activated LLW	LLW	0	137.0	137.0	134	1.4
5H305	JET Decommissioning Concrete LLW	LLW	0	2,798.5	2,798.5	2,900	26.9
5H306	JET Decommissioning Activated ILW	ILW	0	157.0	157.0	454	38.3
5H307	LLW Organic Waste	LLW	0	100.0	100.0	0	0
Minor waste producers – Magnox Limited - Harwell							
6C31/C	NDS Contact Handled ILW	ILW	10.8	0	10.8	13.1	4.0
6C32	NDS Remote Handled ILW	ILW	0.3	0	0.3	0	0
6C33/C	NDS Contact Handled ILW	ILW	4.2	0	4.2	5.1	9.0
Minor waste producers – Outokumpu - Sheffield							
6J01	Contaminated Slag and Other Materials	LLW	647.6	0	647.6	672	27.8
Minor waste producers – Imperial College - Reactor Centre, Ascot							
6K102	Cadmium and Aluminium Linings	VLLW	1.0	0.5	1.5	1.5	-
6K108	Miscellaneous VLLW	VLLW	7.0	2.0	9.0	7.7	-
6K109	Reactor Concrete Biological Shield	LLW	0	160.0	160.0	160	0
Minor waste producers - Rutherford Appleton Laboratory - Harwell							
6N01	Neutron Targets	ILW	0.1	0.7	0.8	1.0	1.7
6N02	Moderators	ILW	0.8	0.8	1.6	1.9	3.4
6N03	Reflectors	ILW	1.6	1.0	2.6	3.1	0.1
6N04	Near Beam Metallic	ILW	4.6	14.8	19.4	23.7	41.5
6N05	Copper	VLLW	25.0	24.0	49.0	49.0	-
6N06	Shutters	LLW	14.2	11.2	25.4	29.4	0.9
6N07	Mixed Metallic	LLW	110.0	259.0	369.0	369	0
Ministry of Defence - AWE plc - AWE Aldermaston							
7A13	Sea Disposal Packs (Concrete Lined Drums)	ILW	476.5	0	476.5	631	193
7A21	Operational ILW Plutonium Contaminated	ILW	1,497.0	1,006.0	2,503.0	1,430	2,500

Site Owner – Waste Custodian - Site		Waste type	Reported volume (m^3)			When wastes at 1.4.2019 and future arisings are packaged	
Stream Identifier	Title		At 1.4.2019	Future arisings	Total	Packaged volume (m^3)	Number of packages[(1)]
7A22	Operational ILW Tritium Hard Waste	ILW	28.0	10.9	38.9	22.2	38.9
7A23	Operational LLW Requiring Further Assay Through the Recategorization Programme	LLW	40.0	0	40.0	65.0	3.3
7A24	Operational LLW - Depleted/Natural Uranium	LLW	116.4	175.2	291.6	215	2.7
7A25	Operational Tritiated LLW	LLW	2.2	84.8	87.0	17.5	0.1
7A26	Operational LLW - Enriched Uranium	LLW	49.9	281.6	331.5	331	1.0
7A27	Operational LLW - Plutonium	LLW	305.6	1,134.0	1,439.6	1,320	4.2
7A28	Operational LLW - Miscellaneous Radionuclides	LLW	0	35.8	35.8	28.3	0
7A29	Uranium Contaminated Operations ILW	ILW	58.4	54.3	112.7	64.3	113
7A32	Closed Sources	ILW	0	92.0	92.0	116	5.9
7A33	Radioactive Contaminated Land	LLW	216.0	3,786.0	4,002.0	4,000	0
7A34	Low Activity Liquids (excluding Hg)	LLW	8.1	48.0	56.1	0	0
7A36	Pyrochemical Wastes	ILW	2.5	4.5	7.0	8.6	15.0
7A37	Contaminated Mercury	LLW	2.7	1.9	4.6	6.1	0.3
7A40	Experimental Metallic Vessels	ILW	9.0	2.0	11.0	13.0	3.9
7A41	Cemented Sludges	LLW	164.8	0	164.8	218	11.2
7A108	Decommissioning LLW Requiring Further Assay Through the Recategorization Programme	LLW	62.2	0	62.2	80.9	4.1
7A109	Decommissioning Waste from Reactors ILW	ILW	5.7	4.0	9.7	5.8	1.8
7A110	Decommissioning Waste Tritium Bearing ILW	ILW	7.0	5.0	12.0	6.9	12.0
7A111	Decommissioning Waste PCM ILW	ILW	2,380.0	2,982.0	5,362.0	3,060	5,360
7A112	Decommissioning LLW - Natural / Depleted Uranium	LLW	0	968.0	968.0	581	0
7A113	Decommissioning LLW - Tritiated	LLW	0.3	107.0	107.3	61.5	3.2
7A114	Decommissioning LLW - Enriched Uranium	LLW	0	2,856.0	2,856.0	3,300	81.6
7A115	Decommissioning LLW - Plutonium	LLW	811.2	10,689.0	11,500.2	8,270	64.3
7A116	Decommissioning LLW - Miscellaneous	LLW	0.2	644.0	644.2	343	11.0
7A117	Decommissioning Waste Uranium Contaminated ILW	ILW	0	725.0	725.0	414	725
Ministry of Defence - Babcock International Group - HMNB Devonport							
7D22	Devonport RA Soft Trash (for Disposal to LLWR)	LLW	4.4	182.6	187.0	13.3	0.7
7D23	Devonport RA Hard Trash (for Disposal to LLWR)	LLW	7.4	161.7	169.1	67.7	1.1

Site Owner – Waste Custodian - Site		Waste type	Reported volume (m^3)			When wastes at 1.4.2019 and future arisings are packaged	
Stream Identifier	Title		At 1.4.2019	Future arisings	Total	Packaged volume (m^3)	Number of packages[(1)]
7D24	ILW Reactor Components	ILW	3.3	5.0	8.3	19.5	1.0
7D26/C	Devonport Conditioned Low Level Ion-Exchange Resin	LLW	2.9	16.8	19.7	96.0	4.9
7D28	Low Level Waste Resin from Plant Decontamination (MODIX)	LLW	27.2	9.4	36.6	178	9.2
7D29	Intermediate Level Waste Resin from Plant Decontamination (MODIX)	ILW	12.1	0	12.1	59.0	3.0
7D30/C	Devonport Conditioned Sludge (for Disposal to LLWR)	LLW	8.0	88.0	96.0	134	6.9
7D31	Devonport Filters (for Disposal to LLWR)	LLW	3.0	37.0	40.0	16.5	0.8
7D34	Ion Exchange Resin from Primary Circuit Decontamination	LLW	11.3	2.8	14.1	68.7	3.5
7D37	Low Level Waste - LLRF Concentrate	LLW	0	1.0	1.0	4.3	0.2
7D40	ILW PCD Ion Exchange Resin	ILW	10.4	0	10.4	50.7	2.6
7D41	ILW Submarine Ion Exchange Resin	ILW	3.6	10.0	13.6	66.3	3.4
7D90	Very Low Level Waste (VLLW) Generated from Nuclear Repair Activities	VLLW	66.3	3,000.0	3,066.3	3,070	-
Ministry of Defence - Babcock International Group - Rosyth Royal Dockyard							
7E22	Submarine Refitting Wastes (Soft Trash)	LLW	0	24.0	24.0	0	0
7E23	Metallic Waste	LLW	0	21.0	21.0	1.1	0
7E29	Intermediate Level Ion Exchange Resin (Decontamination)	ILW	22.4	0.5	22.9	106	5.5
7E101	Site and Facilities Decommissioning Waste: Steel and Building Rubble	LLW	0	25.0	25.0	25.0	0
Ministry of Defence - Ministry of Defence - Clyde Submarine Base							
7F22	Submarine Reactor Wastes (Non-metallic)	LLW	24.0	465.0	489.0	0	0
7F23	Submarine Reactor Wastes (Metallic LLW)	LLW	12.0	490.0	502.0	0	0
7F26/C	Conditioned Ion Exchange Resin from Nuclear Effluent Plants	LLW	0	6.8	6.8	18.3	0.9
7F28	Tritiated Desiccant	LLW	<0.1	0.2	0.2	0	0
Ministry of Defence - Babcock and Ministry of Defence - Rosyth & Devonport (Submarines)							
7G103	LLW from Decommissioned Submarines	LLW	0	1,047.1	1,047.1	54.4	4.2
7G104	Long-Lived ILW from Decommissioned Submarines	ILW	0	191.5	191.5	2,470	684
Ministry of Defence - Ministry of Defence - HMNB Portsmouth							
7J23	Miscellaneous ILW	ILW	5.0	11.0	16.0	19.6	34.3
7J25	Luminised Waste	ILW	2.4	7.0	9.4	12.4	0.6
7J27	Intermediate Level Tritium Waste	ILW	0.1	0.4	0.5	0.6	1.1

Site Owner – Waste Custodian - Site		Waste type	Reported volume (m^3)			When wastes at 1.4.2019 and future arisings are packaged	
Stream Identifier	Title		At 1.4.2019	Future arisings	Total	Packaged volume (m^3)	Number of packages[(1)]
Ministry of Defence - Ministry of Defence - Logistic Services Donnington							
7N03	MOD Donnington Miscellaneous LLW	LLW	0	56.0	56.0	74.0	3.8
Ministry of Defence - Ministry of Defence - NRTE Vulcan							
7V24	Metallic ILW from Vulcan	ILW	1.3	83.2	84.5	104	181
7V25	Resin from Decontamination Operations ILW	ILW	3.0	0	3.0	3.7	6.5
7V26	Area K Operational Supercompactable Drummed LLW	LLW	0	7.8	7.8	9.8	0.5
7V27	Area K Decommissioning LLW	LLW	0	250.0	250.0	331	16.9
7V28	Resin from Decontamination Operations LLW	LLW	3.6	0.1	3.7	4.9	0.3
7V29	Vulcan Contact Handled ILW	ILW	0	7.6	7.6	9.3	16.3
7V30	Area Z Operational Supercompactable Drummed LLW	LLW	11.8	24.0	35.8	44.8	2.3
7V31	Area Z Decommissioning LLW	LLW	0	250.0	250.0	331	16.9
Ministry of Defence - Rolls Royce Submarines Limited - RRSL Derby							
7X01	RRMPOL Low Level Wastes	LLW	225.0	15,300.0	15,525.0	10,200	0
Ministry of Defence - BAE Systems Marine Limited - BAESM Barrow-in-Furness							
7Y101	Decommissioning of Chemistry Laboratory	LLW	0	1.0	1.0	0	0
7Y102	Decommissioning of Waste Treatment Facility	LLW	0	3.0	3.0	0	0
Urenco - Capenhurst Nuclear Services / Urenco UK / Urenco CP - Capenhurst							
8A01	Feed Filter Material	ILW	0.7	1.8	2.5	3.0	5.3
8A05	Empty Uranium Hexafluoride Containers	LLW	0	1,776.0	1,776.0	0	0
8A06	Dewatered Sewage Sludge	LLW	40.0	77.0	117.0	117	0
8A07	Metallic Waste	LLW	20.0	182.4	202.4	40.5	0
8A08	Demolition Waste	LLW	0	64.8	64.8	64.8	0
8A09	Non-Aqueous Waste	LLW	0.6	2.6	3.2	0	0
8A10	Aqueous Waste	LLW	8.0	360.0	368.0	0	0
8A19	Solid Waste from B36 and Legacy Cylinder Facility (LCF)	LLW	2.4	612.0	614.4	36.9	0
8A20	Contaminated Land - Soil	VLLW	0	15,150.0	15,150.0	15,200	-
8A21	Contaminated Land - Concrete	VLLW	0	15,000.0	15,000.0	15,000	-
8A22	Liquors / Sludges from LCF	LLW	0	13.9	13.9	0	0
8A23	ILW FROM LCF	ILW	0	12.2	12.2	14.9	26.2
8A30	UCP Cemented RRF Concentrate	LLW	0	1,371.0	1,371.0	1,370	0

Site Owner – Waste Custodian - Site		Waste type	Reported volume (m^3)			When wastes at 1.4.2019 and future arisings are packaged	
Stream Identifier	Title		At 1.4.2019	Future arisings	Total	Packaged volume (m^3)	Number of packages[(1)]
8A31	UCP Incinerable Solid LLW	LLW	0	2,579.0	2,579.0	0	0
8A32	UCP Metallic LLW	LLW	0	443.0	443.0	0	0
8A33	UCP Non-Combustible Solid LLW	LLW	0	644.5	644.5	645	0
8A101	Centrifuge Plant Decommissioning	LLW	65.0	160.0	225.0	50.6	1.4
8A103	Capenhurst Decommissioning Waste	LLW	50.0	5,640.0	5,690.0	3,410	0
NDA - Magnox Limited - Berkeley							
9A03/C	Ion Exchange Material	ILW	14.2	0	14.2	38.1	7.0
9A25	Ion Exchange Material in Drums	ILW	13.5	0	13.5	288	52.9
9A27	Sludge	ILW	13.5	0	13.5	21.8	4.0
9A31	FED Graphite	ILW	150.7	0	150.7	0	0
9A32	FED Graphite	ILW	225.2	0	225.2	1,020	86.0
9A33	FED Graphite	ILW	39.2	0	39.2	0	0
9A33/C	FED Graphite	ILW	238.9	0	238.9	484	89.0
9A34	FED Graphite	ILW	156.1	0	156.1	818	69.0
9A35	FED Graphite	ILW	65.1	0	65.1	0	0
9A36	Miscellaneous Contaminated Items	ILW	0.2	0	0.2	0	0
9A37	Miscellaneous Contaminated Items	ILW	0.2	0	0.2	0	0
9A38	Miscellaneous Contaminated Items	ILW	10.9	0	10.9	0	0
9A39	FED Magnox	ILW	16.0	0	16.0	0	0
9A40	FED Magnox	ILW	24.0	0	24.0	0	0
9A41	FED Magnox	ILW	28.0	0	28.0	0	0
9A42	FED Magnox	ILW	17.0	0	17.0	0	0
9A43	FED Magnox	ILW	7.0	0	7.0	0	0
9A44/C	Miscellaneous Activated Components	ILW	5.4	0	5.4	14.4	10.9
9A45	Miscellaneous Activated Components	ILW	10.0	0	10.0	12.4	0.6
9A46	Miscellaneous Activated Components	ILW	10.0	0	10.0	12.4	0.6
9A47	FED Stainless Steel	ILW	0.3	0	0.3	0	0
9A48	FED Stainless Steel	ILW	0.4	0	0.4	0	0
9A49	FED Stainless Steel	ILW	0.5	0	0.5	0	0
9A50	FED Stainless Steel	ILW	0.3	0	0.3	0	0

Site Owner – Waste Custodian - Site		Waste type	Reported volume (m^3)			When wastes at 1.4.2019 and future arisings are packaged	
Stream Identifier	Title		At 1.4.2019	Future arisings	Total	Packaged volume (m^3)	Number of packages[(1)]
9A51	FED Stainless Steel	ILW	0.1	0	0.1	0	0
9A52	FED Zirconium	ILW	2.2	0	2.2	0	0
9A53	FED Zirconium	ILW	3.3	0	3.3	0	0
9A54	FED Zirconium	ILW	4.0	0	4.0	0	0
9A55	FED Zirconium	ILW	2.4	0	2.4	0	0
9A56	FED Zirconium	ILW	1.0	0	1.0	0	0
9A57	Sludge (filter-precoat) from Berkeley Technology Centre	ILW	48.5	0	48.5	0	0
9A58	Sludge (filter-precoat) from Berkeley Technology Centre	ILW	14.3	0	14.3	0	0
9A59	Sludge (filter-precoat) from Berkeley Technology Centre	ILW	0.5	0	0.5	0	0
9A60	FED Magnox from Post Irradiation Examination	ILW	0.7	0	0.7	0	0
9A61	FED Magnox from Post Irradiation Examination	ILW	61.9	0	61.9	0	0
9A62	FED Magnox from Post Irradiation Examination	ILW	1.9	0	1.9	0	0
9A63	FED Magnox from Post Irradiation Examination	ILW	0.1	0	0.1	0	0
9A64	FED Magnox from Post Irradiation Examination	ILW	6.8	0	6.8	0	0
9A65	FED Magnox from Post Irradiation Examination	ILW	0.5	0	0.5	0	0
9A66	Miscellaneous Contaminated Items from Post Irradiation Examination	ILW	0.1	0	0.1	0	0
9A67	Miscellaneous Contaminated Items from Post Irradiation Examination	ILW	0.1	0	0.1	0	0
9A68	Miscellaneous Contaminated Items from Post Irradiation Examination	ILW	53.2	0	53.2	664	56.0
9A69	Miscellaneous Contaminated Items from Post Irradiation Examination	ILW	27.5	0	27.5	0	0
9A70	Miscellaneous Contaminated Items from Post Irradiation Examination	ILW	30.8	0	30.8	0	0
9A71	BPS ILW Sludge in Drums	ILW	38.6	0	38.6	27.2	5.0
9A72	BPS ILW Sludge in Drums	ILW	7.6	0	7.6	0	0
9A73	Contaminated Gravel	ILW	47.0	0	47.0	125	23.0
9A74	Contaminated Gravel	ILW	47.0	0	47.0	125	23.0
9A75	Contaminated Gravel	ILW	47.0	0	47.0	154	13.0
9A76	Contaminated Gravel - Chute Silo	LLW	0	0.1	0.1	0.3	<0.1
9A77	BPS Sludge in Drums	ILW	13.5	0	13.5	0	0
9A78	BPS Sludge in Drums	ILW	12.7	0	12.7	0	0
9A80	Drummed Sludge	ILW	3.7	0	3.7	10.9	2.0
9A82	Ion Exchange Material in Drums	ILW	3.0	0	3.0	0	0

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Stream Identifier	Title		At 1.4.2019	Future arisings	Total	Packaged volume (m^3)	Number of packages[(1)]
9A83	Miscellaneous Contaminated Items	ILW	0.1	0	0.1	0	0
9A84	Miscellaneous Contaminated Items from Post Irradiation Examination	ILW	0.1	0	0.1	0	0
9A87	Fuel Fragments/High Dose Rate Items	ILW	<0.1	0	<0.1	5.2	3.9
9A88	Fuel Fragments/High Dose Rate Items	ILW	<0.1	0	<0.1	5.3	4.0
9A916	Empty BPS Sludge Cans	LLW	0	95.3	95.3	258	13.2
9A917	Empty Drums and Liners	ILW	0	8.0	8.0	0	0
9A920	Reactor LLW	LLW	0.2	0	0.2	<0.1	<0.1
9A921	AETP and Decontamination LLW	LLW	0	30.3	30.3	8.4	0.2
9A930	Active Waste Vault Retrieval Decommissioning.	LLW	0	211.8	211.8	64.4	0
9A932	Cooling Water Valve Chamber Sludge	LLW	0.2	0	0.2	0.5	<0.1
9A933	Concrete Slurry	LLW	0.1	0	0.1	0.3	<0.1
9A934	Storm Drains Sludge	LLW	0	0.3	0.3	0.8	<0.1
9A938	CRP Resin Tank SRST1	LLW	0	1.0	1.0	0	0
9A939	CRP Sludge Tank	LLW	0	1.0	1.0	0	0
9A980	Caesium Removal Plant Decommissioning.	LLW	0	33.1	33.1	10.2	0.3
9A105	Reactor LLW	LLW	0	102.0	102.0	94.4	4.7
9A310	Stainless Steel (Reactor) ILW	ILW	0	52.0	52.0	85.0	4.2
9A311	Mild Steel (Reactor) ILW	ILW	0	270.0	270.0	334	16.7
9A312	Miscellaneous Metal (Reactor) ILW	ILW	0	52.0	52.0	150	7.5
9A313	Stainless Steel (Reactor) LLW	LLW	0	6.6	6.6	0	0
9A314	Mild Steel (Reactor) LLW	LLW	0	211.0	211.0	411	21.1
9A315	Mild Steel (Non-Reactor) LLW	LLW	0	484.2	484.2	484	0
9A316	Graphite LLW	LLW	0	33.0	33.0	40.7	2.0
9A317	Concrete (Reactor and Non-Reactor) LLW	LLW	0	26,128.0	26,128.0	26,100	0
9A318	Miscellaneous Metals and Materials (Reactor and Non-Reactor) LLW	LLW	0	1,728.0	1,728.0	1,730	0
9A319	Secondary Wastes LLW	LLW	0	1,116.0	1,116.0	1,120	0
9A320	Contaminated Soil LLW	LLW	0	159.9	159.9	160	0
9A321	Graphite ILW	ILW	0	3,121.0	3,121.0	3,860	193
9A322	Mild Steel (Reactor) Recycle LLW	LLW	0	2,903.0	2,903.0	0	0

Site Owner – Waste Custodian - Site		Waste type	Reported volume (m^3)			When wastes at 1.4.2019 and future arisings are packaged	
Stream Identifier	Title		At 1.4.2019	Future arisings	Total	Packaged volume (m^3)	Number of packages[(1)]
NDA - Magnox Limited - Bradwell							
9B02/C	Ion Exchange Material	ILW	16.4	0	16.4	54.0	40.9
9B13	Desiccant	ILW	11.4	0	11.4	37.1	1.9
9B15/C	Sludge	ILW	12.6	0	12.6	43.5	8.0
9B17/C	Miscellaneous Contaminated Items	ILW	27.4	0	27.4	65.2	12.0
9B28	Miscellaneous Activated Components - R1	ILW	81.0	0	81.0	132	6.6
9B29	Miscellaneous Activated Components - R2	ILW	81.0	0	81.0	132	6.6
9B30	Miscellaneous Activated Components - R1	ILW	3.2	0	3.2	5.2	0.3
9B31	Miscellaneous Activated Components - R2	ILW	3.2	0	3.2	5.2	0.3
9B55/C	Ponds Decontamination Sludge	ILW	11.5	0	11.5	66.0	50.0
9B59/C	FED Magnox	ILW	5.2	0	5.2	13.2	10.0
9B79/C	FED Magnox - Solid Secondary Waste	ILW	0.4	0	0.4	2.6	2.0
9B81/C	FED Magnox - Secondary Ion Exchange Resin (Co-Treat)	ILW	0.7	0	0.7	2.6	2.0
9B82/C	FED Magnox Dissolution Secondary Waste (Sludge)	ILW	1.4	0	1.4	7.9	6.0
9B83/C	Graphite Filter Dust Pots	ILW	1.7	0	1.7	9.2	7.0
9B84/C	FED Magnox - Secondary Granular Activated Carbon (GAC)	ILW	1.2	0	1.2	3.8	2.9
9B85/C	FED Magnox - Secondary Ion Exchange Resin (Cs-Treat)	ILW	0.4	0	0.4	1.3	1.0
9B86/C	Sludge	ILW	2.3	0	2.3	7.9	6.0
9B87/C	Miscellaneous Contaminated Items	ILW	0.5	0	0.5	2.6	2.0
9B910	Reactor LLW	LLW	0	28.6	28.6	5.6	0.2
9B951	Ponds LLW	LLW	0	174.5	174.5	25.1	1.0
9B960	Redundant Sealed Sources	LLW	0	<0.1	<0.1	<0.1	<0.1
9B961	Used FED drums	LLW	0.8	0	0.8	0.3	<0.1
9B962	FED Dissolution LLW	LLW	0	28.7	28.7	28.9	0.3
9B963	FAVORIT Plant	LLW	0	43.6	43.6	31.9	1.5
9B966	NoX Scrubbers	LLW	190.4	0	190.4	6.7	0
9B967	ADAP LLW	LLW	0	54.9	54.9	52.4	0.5
9B968	AETP LLW	LLW	0	54.7	54.7	51.9	0.6
9B969	Steel Discharge Line	LLW	78.0	0	78.0	75.9	1.9
9B105	Care and Maintenance LLW	LLW	0	190.4	190.4	3.7	0.2

Site Owner – Waste Custodian - Site		Waste type	Reported volume (m^3)			When wastes at 1.4.2019 and future arisings are packaged	
Stream Identifier	Title		At 1.4.2019	Future arisings	Total	Packaged volume (m^3)	Number of packages[1]
9B310	Stainless Steel (Reactor) ILW	ILW	0	167.0	167.0	358	17.9
9B311	Mild Steel (Reactor) ILW	ILW	0	412.0	412.0	509	25.4
9B312	Graphite ILW	ILW	0	3,025.0	3,025.0	3,740	187
9B313	Miscellaneous Metal (Reactor) ILW	ILW	0	7.0	7.0	11.4	0.6
9B314	Mild Steel (Reactor) LLW	LLW	0	80.0	80.0	156	8.0
9B315	Mild Steel (Non-Reactor) LLW	LLW	0	3,404.0	3,404.0	3,400	0
9B316	Graphite LLW	LLW	0	215.0	215.0	265	13.3
9B317	Concrete (Reactor and Non-Reactor) LLW	LLW	0	30,244.0	30,244.0	30,200	0
9B318	Miscellaneous Metals and Materials (Reactor and Non-Reactor) LLW	LLW	0	626.0	626.0	626	0
9B319	Secondary Wastes LLW	LLW	0	1,038.0	1,038.0	1,040	0
9B320	Stainless Steel (Reactor) LLW	LLW	0	0.2	0.2	0.3	<0.1
9B321	Contaminated Soil LLW	LLW	0	2,097.3	2,097.3	2,100	0
9B322	Mild Steel (Reactor) Recycle LLW	LLW	0	2,602.0	2,602.0	0	0
NDA - Magnox Limited - Dungeness A							
9C02	PWTP Ion Exchange Material	ILW	8.0	0	8.0	27.7	21.0
9C02/C [2]	PWTP Ion Exchange Material	ILW	17.4	0	17.4	59.1	44.8
9C13	Magnox Dissolution Plant LLW	LLW	37.1	0	37.1	57.3	2.6
9C14	Desiccant	ILW	6.3	3.1	9.4	0	0
9C15	Incinerator Ash	LLW	0.5	0	0.5	0.5	<0.1
9C16	PWTP Sludge	ILW	5.2	0	5.2	6.4	4.9
9C17	Magnox Dissolution Plant Sludge	LLW	29.0	0	29.0	136	7.0
9C20	AETP Sludge	LLW	18.9	0	18.9	58.4	3.0
9C24	FED Magnox (lugs and splitters)	ILW	1.0	0	1.0	0	0
9C30	Miscellaneous Activated Components	ILW	52.0	0	52.0	64.3	3.2
9C32	Miscellaneous Activated Components	ILW	8.4	0	8.4	10.4	0.5
9C33	Miscellaneous Activated Components	ILW	58.0	0	58.0	71.7	3.6
9C35	Miscellaneous Activated Components	ILW	6.2	0	6.2	7.7	0.4
9C36	Ion Exchange Resin from Ponds	ILW	32.1	0	32.1	97.6	74.0
9C38	Ion Siv Unit Pre Filters	ILW	1.4	0	1.4	5.4	1.0
9C40	Ion Siv Unit Post Filters	ILW	0.4	0	0.4	5.4	1.0

Site Owner – Waste Custodian - Site		Waste type	Reported volume (m^3)			When wastes at 1.4.2019 and future arisings are packaged	
Stream Identifier	Title		At 1.4.2019	Future arisings	Total	Packaged volume (m^3)	Number of packages[(1)]
9C41	Ion Siv Unit Pre Filters	ILW	1.1	0	1.1	5.4	1.0
9C43	Ion Siv Unit Post Filters	ILW	0.8	0	0.8	5.4	1.0
9C44	Fuel Skips in Pond	ILW	71.2	0	71.2	142	12.0
9C45	Fuel Skips in Pond	LLW	14.0	0	14.0	24.7	1.3
9C47	Miscellaneous Activated Components (including Nimonic Springs, Thermocouples, Nose Cones and End Caps)	ILW	0.3	0	0.3	5.2	4.0
9C51	Contaminated Zinc Bromide	LLW	0.1	0	0.1	0	0
9C52	Contaminated Sand	LLW	1.9	0	1.9	3.4	0.2
9C53	Miscellaneous Contaminated Items	ILW	2.7	0	2.7	7.9	6.0
9C54	Catalyst	ILW	1.5	0	1.5	0	0
9C55	Doulton Filters	LLW	6.4	0	6.4	12.4	0.6
9C56	Miscellaneous Activated Components	ILW	9.8	0	9.8	12.1	0.6
9C57	Miscellaneous Activated Components	ILW	8.3	0	8.3	10.3	0.5
9C58	AEWTP Cationic, Anionic and CRU1 Resin	LLW	7.2	0	7.2	19.5	1.0
9C60	Contaminated Oil	LLW	0.3	0	0.3	0	0
9C61	Contaminated Sand and Gravel from AETP and PWTP Sand Filters	LLW	7.8	0	7.8	19.5	1.0
9C68	Sand & Gravel ST2	ILW	13.2	0	13.2	32.6	6.0
9C69	Raschig Rings	LLW	0.5	0	0.5	1.0	0.1
9C70	Cyclone dust	ILW	2.0	0	2.0	1.3	1.0
9C911	Reactor and Boiler Systems LLW	LLW	146.0	124.0	270.0	262	0.3
9C912	Effluent Treatment Plant, Ponds and Decontamination LLW	LLW	0	63.3	63.3	55.9	0.2
9C913	DAMAL	LLW	0	42.5	42.5	29.3	0.9
9C914	Scaffolding	LLW	0	104.1	104.1	72.8	0
9C915	LLAW Plant	LLW	0	196.4	196.4	196	0
9C944	Contaminated Insulation	VLLW	0	1,771.4	1,771.4	1,770	-
9C950	Redundant Sealed Sources	LLW	<0.1	<0.1	<0.1	0.1	<0.1
9C105	Reactor and Boiler Systems LLW	LLW	0	134.0	134.0	124	6.2
9C310	Stainless Steel (Reactor) ILW	ILW	0	143.0	143.0	177	8.8
9C311	Mild Steel (Reactor) ILW	ILW	0	477.0	477.0	590	29.4
9C312	Graphite ILW	ILW	0	3,422.0	3,422.0	4,230	211

Site Owner – Waste Custodian - Site		Waste type	Reported volume (m^3)			When wastes at 1.4.2019 and future arisings are packaged	
Stream Identifier	Title		At 1.4.2019	Future arisings	Total	Packaged volume (m^3)	Number of packages[(1)]
9C313	Stainless Steel (Reactor) LLW	LLW	0	1.0	1.0	0	0
9C314	Mild Steel (Reactor) LLW	LLW	0	457.0	457.0	891	45.7
9C315	Mild Steel (Non-Reactor) LLW	LLW	0	3,607.0	3,607.0	3,610	0
9C317	Concrete (Reactor and Non-Reactor) LLW	LLW	0	23,611.0	23,611.0	23,600	0
9C318	Miscellaneous Metals and Materials (Reactor and Non-Reactor) LLW	LLW	0	762.0	762.0	762	0
9C319	Secondary Wastes LLW	LLW	0	1,019.0	1,019.0	1,020	0
9C320	Miscellaneous Metals (Reactor) ILW	ILW	0	0.1	0.1	0.1	<0.1
9C321	Contaminated Soil LLW	LLW	0	930.0	930.0	930	0
9C322	Mild Steel (Reactor) Recycle LLW	LLW	0	2,310.0	2,310.0	0	0
9C323	Reactor and Boiler Systems LLW	LLW	0	209.9	209.9	171	8.1
9C324	Effluent Treatment Plant, Ponds and Decontamination LLW	LLW	0	159.3	159.3	69.2	3.3
NDA - Magnox Limited - Hinkley Point A							
9D15	PWTP Fine Filters	ILW	5.8	0	5.8	35.5	3.0
9D17	PWTP Fine Filters (ILW)	ILW	25.4	7.9	33.3	87.0	7.3
9D18	Desiccant	ILW	2.4	4.2	6.6	0	0
9D22	Sludge	ILW	20.7	0	20.7	90.9	7.7
9D23	Sludge	ILW	4.8	0	4.8	35.6	3.0
9D24	Sludge	ILW	19.4	0	19.4	85.1	7.2
9D25	Ion Exchange Material	ILW	44.0	0	44.0	26.0	50.0
9D26	Ion Exchange Material	ILW	15.0	0	15.0	0	0
9D27	Ion Exchange Material	ILW	27.0	0	27.0	652	55.0
9D28	Ion Exchange Material	ILW	29.4	0	29.4	0	0
9D29	Ion Exchange Material	ILW	29.2	0.8	30.0	0	0
9D30	Miscellaneous Contaminated Items	ILW	1.3	0	1.3	11.9	1.0
9D32	Contaminated Sand	ILW	1.0	0	1.0	4.4	0.4
9D33	FED Magnox R1	ILW	209.0	0	209.0	355	30.0
9D34	FED Magnox R2	ILW	220.0	0	220.0	367	31.0
9D35	Miscellaneous Activated Components R1	ILW	68.0	0	68.0	111	5.6
9D36	Miscellaneous Activated Components R2	ILW	68.0	0	68.0	111	5.6
9D37	Miscellaneous Activated Components R1	ILW	2.1	0	2.1	3.4	0.2

Site Owner – Waste Custodian - Site		Waste type	Reported volume (m^3)			When wastes at 1.4.2019 and future arisings are packaged	
Stream Identifier	Title		At 1.4.2019	Future arisings	Total	Packaged volume (m^3)	Number of packages[(1)]
9D38	Miscellaneous Activated Components R2	ILW	2.1	0	2.1	3.4	0.2
9D39	FED Nimonic R1	ILW	0.8	0	0.8	20.9	15.8
9D40	FED Nimonic R2	ILW	0.9	0	0.9	21.2	16.0
9D41	FED Magnox - R1	ILW	165.0	0	165.0	308	26.0
9D42	FED Magnox - R2	ILW	155.0	0	155.0	284	24.0
9D43	FED Nimonic - R1	ILW	0.1	0	0.1	5.3	4.0
9D44	FED Nimonic - R2	ILW	0.1	0	0.1	2.6	2.0
9D45	Contaminated Gravel	ILW	10.0	0	10.0	23.7	2.0
9D46	Contaminated Gravel	ILW	10.0	0	10.0	23.7	2.0
9D47	Contaminated Sand and Pond Sludge	ILW	8.5	0	8.5	33.7	64.9
9D48	Miscellaneous Contaminated Items	LLW	6.7	0	6.7	13.1	0.7
9D49	Ion Siv Unit Pre Filters	ILW	2.2	0	2.2	11.9	1.0
9D50	Ion Siv Unit Cartridges	ILW	0.4	0.5	0.9	5.2	4.0
9D51	Ion Siv Unit Post Filters	ILW	0.4	0	0.4	11.9	1.0
9D52	Miscellaneous Activated Components from R1 Pond	ILW	0.8	0	0.8	11.1	8.4
9D53	VLLW Asbestos and MMMF	VLLW	411.0	0	411.0	409	-
9D54	Miscellaneous Activated Components from R2 pond	ILW	0.9	0	0.9	12.6	9.6
9D60	Sand in Sand Pressure Filters - PWTP	ILW	4.8	14.4	19.2	84.3	7.1
9D64	Contaminated Gravel	ILW	6.6	0	6.6	29.6	56.9
9D65	Ion Exchange Material and Pond Sludge	ILW	5.0	0	5.0	10.0	19.2
9D66	Contaminated Gravel	ILW	2.0	0	2.0	10.8	0.9
9D67	FED Sludge - R1	ILW	5.0	0	5.0	21.9	1.9
9D68	FED Sludge - R2	ILW	5.0	0	5.0	21.9	1.9
9D69	FED Sludge - R1	ILW	10.0	0	10.0	43.9	3.7
9D70	FED Sludge - R2	ILW	10.0	0	10.0	43.9	3.7
9D71	Ion Exchange Material	LLW	0	38.0	38.0	0	0
9D72	Sludge/resin from operational clean-up	ILW	3.1	9.0	12.1	59.3	5.0
9D73	Miscellaneous Activated Components R1	ILW	30.0	0	30.0	49.0	2.4
9D74	Miscellaneous Activated Components - R2	ILW	30.0	0	30.0	49.0	2.4
9D75	Vacuum Debris	LLW	0.8	0	0.8	1.2	0.1

Site Owner – Waste Custodian - Site		Waste type	Reported volume (m^3)			When wastes at 1.4.2019 and future arisings are packaged	
Stream Identifier	Title		At 1.4.2019	Future arisings	Total	Packaged volume (m^3)	Number of packages[(1)]
9D76	AETP Sludge LLW	LLW	0	0.6	0.6	4.9	0.3
9D77	Desiccant (LLW)	LLW	2.5	0	2.5	0	0
9D78	IonSiv Unit Pre Filters (LLW)	LLW	0.9	0	0.9	2.9	0.1
9D79	IonSiv Unit Post Filters (LLW)	LLW	2.9	0	2.9	9.0	0.5
9D80	MCI Metallic, contaminated metal from Pond operations	ILW	4.7	0	4.7	11.9	1.0
9D81	MCI Concrete, contaminated concrete blocks from Pond operations	ILW	1.2	0	1.2	11.9	1.0
9D82	Vacuum Debris (ILW)	ILW	1.5	0	1.5	11.9	1.0
9D83	Incinerator Ash (ILW)	ILW	0.8	0	0.8	11.9	1.0
9D84	Skip Store Skip Coating	ILW	2.2	0	2.2	11.9	1.0
9D89	PWTP Fine Filters (LLW)	LLW	3.0	0	3.0	5.9	0.3
9D913	Pond & Effluent Treatment Plant LLW	LLW	18.8	820.2	839.0	410	19.8
9D914	General Reactor LLW	LLW	22.4	1,665.0	1,687.4	541	26.0
9D916	C&M Preps LLW Buildings	LLW	0	176.0	176.0	112	5.3
9D917	Sludge/Resin from Post Operational Clean Out	ILW	0	0.7	0.7	3.4	0.3
9D918	Ponds and Magnox Vault Wall Scabblings	LLW	1.0	0	1.0	0.9	<0.1
9D920	Miscellaneous Decommissioning ILW from Plant Items.	ILW	0	10.0	10.0	23.7	2.0
9D921	Sludge Canning Building Plant Items	ILW	0	6.2	6.2	11.9	1.0
9D922	Sludge Canning Building Decommissioning LLW	LLW	6.8	160.8	167.6	173	8.5
9D923	Redundant Sealed Sources	LLW	<0.1	<0.1	<0.1	<0.1	<0.1
9D925	Ponds & Magnox Vault ILW Scabblings	ILW	2.8	0	2.8	11.9	1.0
9D926	ILW Skip Millings	ILW	0.3	0	0.3	0	0
9D927	VLLW Metallic waste from skip milling operations	VLLW	2.0	0	2.0	2.0	-
9D928	Effluent Treatment Plant Sludge	VLLW	2.0	0	2.0	2.0	-
9D930	Bradwell ILW skips	ILW	1.6	0	1.6	0	0
9D931	Sellafield ILW skip	ILW	0.5	0	0.5	2.8	0.2
9D932	Sellafield LLW Skips	LLW	1.0	0	1.0	2.5	0.1
9D106	General Reactor LLW	LLW	0	116.0	116.0	116	0
9D310	Stainless Steel (Reactor) ILW	ILW	0	61.0	61.0	75.4	3.8
9D311	Mild Steel (Reactor) ILW	ILW	0	384.0	384.0	475	23.7
9D312	Graphite ILW	ILW	0	3,555.0	3,555.0	4,390	219

Site Owner – Waste Custodian - Site		Waste type	Reported volume (m^3)			When wastes at 1.4.2019 and future arisings are packaged	
Stream Identifier	Title		At 1.4.2019	Future arisings	Total	Packaged volume (m^3)	Number of packages[(1)]
9D313	Miscellaneous Metal (Reactor) ILW	ILW	0	12.0	12.0	25.7	1.3
9D314	Mild Steel (Reactor) LLW	LLW	0	913.0	913.0	1,780	91.3
9D315	Mild Steel (Non-Reactor) LLW	LLW	0	4,578.0	4,578.0	4,580	0
9D316	Graphite LLW	LLW	0	47.0	47.0	47.0	0
9D317	Concrete (Reactor and Non-Reactor) LLW	LLW	0	27,019.0	27,019.0	27,000	0
9D318	Miscellaneous Metals and Materials (Reactor and Non-Reactor) LLW	LLW	0	1,380.0	1,380.0	1,380	0
9D319	Secondary Wastes LLW	LLW	0	1,038.0	1,038.0	1,040	0
9D320	Stainless Steel (Reactor) LLW	LLW	0	0.1	0.1	0.2	<0.1
9D321	Contaminated Soil LLW	LLW	0	710.0	710.0	710	0
9D322	Reactor Neutron Sources R1	ILW	0	0.5	0.5	0.6	<0.1
9D323	Reactor Neutron Sources R2	ILW	0	0.5	0.5	0.6	<0.1
9D324	Debris in Debris Removal Ducts R1	ILW	0	1.0	1.0	1.2	0.1
9D325	Debris in Debris Removal Ducts R2	ILW	0	1.0	1.0	1.2	0.1
9D326	Mild Steel (Reactor) Recycle LLW	LLW	0	2,051.0	2,051.0	0	0
NDA - Magnox Limited - Oldbury							
9E01	Sludge	ILW	14.2	11.1	25.3	20.4	3.7
9E17	Sludge	ILW	8.0	8.0	16.0	11.4	2.1
9E20	Ion Exchange Material	ILW	14.7	6.2	20.9	54.4	10.0
9E22	Miscellaneous Contaminated Items	ILW	8.5	0.5	9.0	10.8	2.0
9E23	Miscellaneous Contaminated Items	ILW	11.4	0	11.4	10.9	2.0
9E24	FED Magnox	ILW	81.4	0	81.4	110	5.7
9E25	FED Magnox	ILW	81.4	0	81.4	110	5.7
9E26	FED Magnox	ILW	85.3	0	85.3	116	5.9
9E27	FED Magnox	ILW	85.3	0	85.3	116	5.9
9E28	FED Magnox	ILW	76.5	0.9	77.4	105	5.4
9E31	Miscellaneous Activated Components	ILW	52.1	0	52.1	64.4	3.2
9E32	Miscellaneous Activated Components	ILW	70.1	0	70.1	86.7	4.3
9E39	Miscellaneous Activated Components	ILW	1.0	0	1.0	1.2	0.1
9E40	FED Nimonic	ILW	0.1	0	0.1	5.3	4.0
9E41	FED Nimonic	ILW	0.2	0	0.2	7.8	5.9

Site Owner – Waste Custodian - Site		Waste type	Reported volume (m^3)			When wastes at 1.4.2019 and future arisings are packaged	
Stream Identifier	Title		At 1.4.2019	Future arisings	Total	Packaged volume (m^3)	Number of packages[(1)]
9E43	FED Nimonic	ILW	0.1	0	0.1	5.3	4.0
9E45	Sludge	ILW	15.6	0	15.6	10.9	2.0
9E49	Contaminated Gravel	ILW	4.0	0	4.0	10.9	2.0
9E50	Contaminated Gravel	ILW	4.0	0	4.0	10.9	2.0
9E54	Contaminated Oil	LLW	1.0	9.3	10.3	0	0
9E55	Ion Siv Filters	LLW	2.9	0	2.9	5.7	0.3
9E56/C [(3)]	Ion Siv Unit Cartridges & Post Filters	ILW	0.8	0	0.8	5.3	4.0
9E61	ILW Fuel Skips	ILW	34.8	0	34.8	11.9	1.0
9E63	Redundant Sources	LLW	0	<0.1	<0.1	<0.1	<0.1
9E68	Active Effluent Treatment Plant Fine Filters	LLW	1.8	1.7	3.4	6.7	0.3
9E69	Pond Filtration Plant Fine Filters	LLW	1.2	0.8	1.9	3.8	0.2
9E70	LLW Pond Skips	LLW	153.2	0	153.2	272	14.0
9E913	Care & Maintenance Preparation : AETP LLW	LLW	3.0	496.9	499.9	335	17.1
9E914	Ponds and Other Wet Fuel Routes LLW	LLW	7.2	114.8	122.0	44.2	2.3
9E958	Dry Fuel Route (excluding BCD) LLW	LLW	4.7	170.4	175.1	21.1	1.1
9E959	BCD LLW	LLW	0.7	13.9	14.6	11.6	0.6
9E960	Active Waste Store, Active Laundry LLW	LLW	1.5	132.0	133.5	32.2	1.6
9E961/C	Ion Siv Unit Cartridges & Pre Filters	ILW	0.8	0	0.8	5.3	4.0
9E962/C	Ion Siv Unit Cartridges	ILW	0.2	0	0.2	2.6	2.0
9E104	Care & Maintenance : Dry Fuel Route LLW	LLW	0	132.0	132.0	122	6.1
9E310	Stainless Steel (Reactor) ILW	ILW	0	80.5	80.5	173	8.7
9E311	Mild Steel (Reactor) ILW	ILW	0	489.1	489.1	605	30.2
9E312	Stainless Steel (Reactor) Recycle LLW	LLW	0	68.1	68.1	0	0
9E313	Mild Steel (Reactor) LLW	LLW	0	266.0	266.0	519	26.6
9E315	Graphite LLW	LLW	0	1,890.0	1,890.0	2,330	117
9E316	Concrete (Reactor and Non-Reactor) LLW	LLW	0	58,029.0	58,029.0	58,000	0
9E317	Miscellaneous Metals and Materials (Reactor and Non-Reactor) LLW	LLW	0	99.0	99.0	99.0	0
9E318	Secondary Wastes LLW	LLW	0	1,206.0	1,206.0	1,210	0
9E319	Graphite ILW	ILW	0	3,303.0	3,303.0	4,080	204
9E320	Miscellaneous Metals (Reactor) ILW	ILW	0	0.1	0.1	0.1	<0.1

Site Owner – Waste Custodian - Site		Waste type	Reported volume (m^3)			When wastes at 1.4.2019 and future arisings are packaged	
Stream Identifier	Title		At 1.4.2019	Future arisings	Total	Packaged volume (m^3)	Number of packages[(1)]
9E321	Contaminated Soil LLW	LLW	0	1,000.0	1,000.0	1,000	0
9E322	Mild Steel (Reactor) Recycle LLW	LLW	0	1,481.0	1,481.0	0	0
9E323	Dry Fuel Route (excluding BCD) LLW	LLW	0	3,513.2	3,513.2	1,790	0
9E324	BCD LLW	LLW	0	114.9	114.9	137	7.0
NDA - Magnox Limited - Sizewell A							
9F02	Ion Exchange Material	LLW	2.0	0	2.0	16.3	0.8
9F14	Desiccant and Catalyst from Gas Conditioning Plant	ILW	4.9	0	4.9	0	0
9F17	Sludge	LLW	12.8	0	12.8	104	5.3
9F18	Miscellaneous Drummed Contaminated and Activated Items	ILW	90.0	0	90.0	176	9.0
9F19	Miscellaneous Drummed Contaminated and Activated Items	LLW	48.0	0	48.0	0	0
9F23	FED Magnox	LLW	286.0	0	286.0	387	19.9
9F25	Miscellaneous Activated Components	ILW	145.0	0	145.0	179	9.0
9F26	Miscellaneous Activated Components - R1	ILW	142.0	0	142.0	176	8.8
9F27	Miscellaneous Activated Components - R2	ILW	113.0	0	113.0	140	7.0
9F28	Shield Cooling Air Filters - R1	LLW	12.7	0	12.7	1.3	0
9F29	Shield Cooling Air Filters - R2	LLW	15.6	0	15.6	1.6	0
9F31	Ion Siv Unit Filters	LLW	5.1	0	5.1	19.5	1.0
9F33	Ion Siv Unit Filters	ILW	0.4	0	0.4	0.8	0.2
9F37	Sludge	ILW	0	11.0	11.0	10.9	2.0
9F38	PWTP Filters - Sand and Gravel	ILW	0	9.4	9.4	21.7	4.0
9F39	Fuel Skips in Pond	ILW	48.1	0	48.1	94.7	8.0
9F42	AETP Filters - Sand and Gravel	ILW	0	2.3	2.3	18.7	1.0
9F43	FED Nimonic/Zirconium	ILW	<0.1	0	<0.1	1.3	1.0
9F44	Pond Sludge	ILW	4.1	0	4.1	5.4	1.0
9F45	Fuel Bottle	ILW	<0.1	0	<0.1	1.3	1.0
9F46	Fuel Skips in Pond	LLW	102.4	0	102.4	200	10.2
9F47	Fuel Fragments	ILW	<0.1	0	<0.1	1.3	1.0
9F910	Reactor Area LLW	LLW	0	258.8	258.8	44.0	2.2
9F911	Ponds and Effluent Treatment Plant LLW	LLW	0	516.1	516.1	28.7	1.4
9F913	VLLW Reactor Area Lagging	VLLW	0	56.0	56.0	56.0	-

Site Owner – Waste Custodian - Site		Waste type	Reported volume (m^3)			When wastes at 1.4.2019 and future arisings are packaged	
Stream Identifier	Title		At 1.4.2019	Future arisings	Total	Packaged volume (m^3)	Number of packages[(1)]
9F950	Redundant Sealed Sources	LLW	<0.1	<0.1	<0.1	<0.1	<0.1
9F105	Care & Maintenance LLW	LLW	0	130.0	130.0	130	0
9F310	Stainless Steel (Reactor) ILW	ILW	0	19.0	19.0	23.5	1.2
9F311	Mild Steel (Reactor) ILW	ILW	0	398.0	398.0	492	24.6
9F312	Graphite ILW	ILW	0	3,606.0	3,606.0	4,460	223
9F313	Miscellaneous Metal (Reactor) ILW	ILW	0	2.4	2.4	5.1	0.3
9F314	Stainless Steel (Reactor) Recycle LLW	LLW	0	0.9	0.9	0	0
9F315	Mild Steel (Reactor) LLW	LLW	0	569.0	569.0	1,110	56.9
9F316	Mild Steel (Non-Reactor) LLW	LLW	0	2,774.0	2,774.0	2,770	0
9F318	Concrete (Reactor and Non-Reactor) LLW	LLW	0	23,501.0	23,501.0	23,500	0
9F319	Miscellaneous Metals and Materials (Reactor and Non-Reactor) LLW	LLW	0	1,385.0	1,385.0	1,380	0
9F320	Secondary Wastes LLW	LLW	0	1,043.0	1,043.0	1,040	0
9F321	Contaminated Soil LLW	LLW	0	308.0	308.0	308	0
9F322	Mild Steel (Reactor) Recycle LLW	LLW	0	2,475.0	2,475.0	0	0
9F323	Ponds and Effluent Treatment Plant LLW	LLW	0	282.2	282.2	195	0
9F324	Reactor Area LLW/VLLW	LLW	0	949.4	949.4	541	0
NDA - Magnox Limited - Trawsfynydd							
9G04/C	Ion Exchange Material Conditioned Waste	ILW	312.2	0	312.2	1,370	68.6
9G15	FED Drummed Magnox	ILW	42.4	0	42.4	150	46.0
9G16/C	Sludge - Conditioned Material	ILW	61.6	0	61.6	73.1	28.0
9G18/C	Ion Exchange Material - Conditioned Waste	ILW	653.7	0	653.7	2,870	143
9G19/C	Ion Exchange Material - Conditioned Waste	ILW	215.0	0	215.0	946	47.3
9G20/C	Ion Exchange Material - Conditioned Waste	ILW	188.5	0	188.5	828	41.3
9G34	FED Magnox	ILW	118.3	0	118.3	149	45.5
9G34/C	FED Magnox	ILW	35.1	0	35.1	42.5	13.0
9G35	FED Magnox	ILW	155.3	0	155.3	196	60.0
9G35/C	FED Magnox	ILW	21.6	0	21.6	26.2	8.0
9G36/C	Conditioned Miscellaneous Activated Components	ILW	43.2	0	43.2	52.3	16.0
9G37/C	Conditioned Miscellaneous Activated Components	ILW	43.2	0	43.2	52.3	16.0
9G38	Miscellaneous Activated Components	ILW	21.0	0	21.0	26.0	1.3

Site Owner – Waste Custodian - Site		Waste type	Reported volume (m^3)			When wastes at 1.4.2019 and future arisings are packaged	
Stream Identifier	Title		At 1.4.2019	Future arisings	Total	Packaged volume (m^3)	Number of packages[(1)]
9G39	Miscellaneous Activated Components	ILW	21.0	0	21.0	26.0	1.3
9G40	FED Nimonic	ILW	0.2	0	0.2	0	0
9G41	FED Nimonic	ILW	0.3	0	0.3	0	0
9G48/C	Encapsulated Skips and Debris from Fuel Cooling Pond	ILW	8.1	0	8.1	9.8	3.0
9G49	Contaminated Oil - Drummed	LLW	2.9	0	2.9	0	0
9G64	Miscellaneous Contaminated Items	ILW	4.1	0	4.1	0	0
9G66	Miscellaneous Contaminated Items	LLW	2.0	0	2.0	3.7	0.2
9G69	Miscellaneous Contaminated Items - Debris from Fuel Cooling Ponds	ILW	0.7	0	0.7	6.5	2.0
9G71	Diversion Culvert Silt	LLW	53.0	0	53.0	3.7	0
9G72	Ponds - Acceptance Bays Gravel & Sand from North and South Acceptance Bays - Gravel	ILW	1.6	0	1.6	0	0
9G73	Wet / Mobile Waste - WRATS	ILW	3.0	0	3.0	0	0
9G74	Wet / Mobile Waste - WRATS	LLW	2.0	0	2.0	3.7	0.2
9G76	Concrete from Base of Magnox Debris South Vault	ILW	0	7.7	7.7	36.0	11.0
9G77	Concrete from Base of Magnox Debris North Vault	ILW	0	7.7	7.7	36.0	11.0
9G78	Sludge (incorporating MSV and RV1 WRATS)	ILW	1.0	0	1.0	5.2	2.0
9G78/C	Sludge (incorporating MSV and RV1 WRATS) - Conditioned Material	ILW	94.6	0	94.6	112	43.0
9G79	Ponds Sampling Drain 7 Components	ILW	1.3	0	1.3	14.7	4.5
9G104	Resin Vaults LLW	LLW	0	121.1	121.1	50.7	1.7
9G105	Reactor LLW	LLW	0	291.7	291.7	260	2.2
9G106	Ponds LLW	LLW	0	687.0	687.0	773	31.1
9G107/C	Ion Exchange Material	ILW	103.8	0	103.8	454	22.7
9G109	Pond Scabbling Wastes	LLW	0	106.4	106.4	150	7.2
9G110	Reactor LLW	LLW	0	90.0	90.0	83.3	4.2
9G113	CDVAR Plates	LLW	1.8	0	1.8	3.5	0.2
9G115	Asbestos Stripped from Primary Cooling Circuit	LLW	3.8	0	3.8	3.8	0
9G118	Active Drains	LLW	9.9	2.1	12.0	1.4	0
9G119	Oil Separator Sludge (Reactor Building Oil Separators)	LLW	8.1	2.8	10.9	0	0
9G120	Contents of SS1 South Basement Drains	LLW	0.2	0.3	0.5	0.2	0
9G121	Active Drains (Final Delay Tank)	LLW	0	0.6	0.6	0.1	0

Site Owner – Waste Custodian - Site		Waste type	Reported volume (m^3)			When wastes at 1.4.2019 and future arisings are packaged	
Stream Identifier	Title		At 1.4.2019	Future arisings	Total	Packaged volume (m^3)	Number of packages[(1)]
9G122	Ponds Oil Separator Tank (OST)	LLW	2.3	0.8	3.1	1.4	0.1
9G123	Ponds North Void FED debris	ILW	1.4	0	1.4	0	0
9G124	Loose Particulate Waste North and South FED vaults	ILW	0	3.8	3.8	19.1	5.8
9G125	R2 Pressure Vessel Sampling Inspection Equipment	ILW	3.0	0	3.0	0	0
9G126	DWTP Sand Filtration Vessel	ILW	3.0	0	3.0	0	0
9G127	Diversion Culvert Oil Interceptor (DCOI) Oil Sump	LLW	0	40.3	40.3	0	0
9G129	Active Waste Vaults ILW	ILW	2.0	0	2.0	0	0
9G130	Flux Detectors	ILW	1.0	0	1.0	1.6	0.5
9G131	AETP Sand & Sludge	ILW	6.5	0	6.5	68.6	21.0
9G309	Stainless Steel (Reactor) ILW	ILW	0	51.6	51.6	111	5.5
9G310	Mild Steel (Reactor) ILW	ILW	0	1,157.7	1,157.7	1,430	71.5
9G311	Graphite ILW	ILW	0	3,432.0	3,432.0	4,240	212
9G312	Miscellaneous Metal (Reactor) ILW	ILW	0	10.3	10.3	22.2	1.1
9G313	Stainless Steel (Reactor) Recycle LLW	LLW	0	10.0	10.0	0	0
9G314	Mild Steel (Reactor) LLW	LLW	0	1,328.0	1,328.0	2,590	133
9G315	Mild Steel (Non-Reactor) LLW	LLW	0	3,475.0	3,475.0	3,480	0
9G316	Graphite LLW	LLW	0	48.0	48.0	59.3	3.0
9G317	Concrete (Reactor and Non-Reactor) LLW	LLW	0	34,645.0	34,645.0	67,600	3,460
9G318	Miscellaneous Metals and Materials (Reactor and Non-Reactor) LLW	LLW	0	766.0	766.0	766	0
9G319	Secondary Wastes LLW	LLW	0	1,092.0	1,092.0	1,090	0
9G320	Contaminated Soil LLW	LLW	0	3,200.0	3,200.0	3,200	0
9G321	Mild Steel (Reactor) Recycle LLW	LLW	0	2,079.0	2,079.0	0	0
NDA - Magnox Limited - Wylfa							
9H02	Desiccant	ILW	6.7	0	6.7	0	0
9H11	Pile Cap, Dry Fuel Store and Associated Areas LLW	LLW	2.8	73.9	76.6	14.6	0.5
9H12	Flask Handling Area, AETP and Laundry LLW	LLW	0.5	10.0	10.5	2.0	0.1
9H14	Auxiliary Gas Systems LLW	LLW	11.9	9.0	20.9	3.0	0.1
9H15	Sludge	LLW	27.1	8.5	35.6	289	14.8
9H16	Sludge	LLW	6.6	1.7	8.3	67.4	3.5
9H17	Sludge	LLW	6.6	1.7	8.3	67.4	3.5

Site Owner – Waste Custodian - Site		Waste type	Reported volume (m^3)			When wastes at 1.4.2019 and future arisings are packaged	
Stream Identifier	Title		At 1.4.2019	Future arisings	Total	Packaged volume (m^3)	Number of packages[(1)]
9H18	Miscellaneous Activated Components	ILW	268.0	0.2	268.2	332	16.6
9H19	Miscellaneous Activated Components	ILW	268.0	0.2	268.2	332	16.6
9H20	Miscellaneous Activated Components	ILW	299.1	0.2	299.3	370	18.5
9H21	Contaminated Waste Oil	LLW	6.9	5.1	12.0	0	0
9H24	Burst Can Detector Coolers	ILW	2.6	2.8	5.4	16.3	3.0
9H25	Type H Cleaner Bags	ILW	1.5	0.3	1.7	5.2	1.0
9H26/C	DSC4 Uranic Corrosion Debris	ILW	0.3	0	0.3	3.9	3.0
9H27	Auxiliary Gas Systems	ILW	0.6	0.1	0.7	5.4	1.0
9H28	Redundant Sealed Sources	LLW	0	<0.1	<0.1	<0.1	<0.1
9H29	Dry Store Cell 4 Residue	LLW	0.5	1.6	2.1	0.3	<0.1
9H32	Water/Sludge Active Incinerator Effluent Tanks	LLW	60.0	0	60.0	0	0
9H33	Graphite ILW	ILW	<0.1	0	<0.1	0	0
9H34	Pile Cap, Dry Fuel Store and associated areas	ILW	2.1	0	2.1	5.4	1.0
9H911	Pile Cap, Dry Fuel Store and Associated Areas LLW	LLW	0	673.8	673.8	40.1	0.7
9H912	Flask Handling Area and AETP LLW	LLW	0	217.3	217.3	25.8	0.7
9H914	Auxiliary Gas Systems LLW	LLW	0	56.9	56.9	0	0
9H928	Auxiliary Gas Systems	ILW	0	1.1	1.1	5.4	1.0
9H929	Incinerator Building - LLW	LLW	0	36.9	36.9	2.9	0.1
9H930	Dry Store Cell 4	LLW	0	151.1	151.1	34.1	1.4
9H932	Flask Filling Area Sludge	ILW	0	0.1	0.1	1.3	1.0
9H104	Care & Maintenance LLW	LLW	0	150.0	150.0	139	6.9
9H309	Stainless Steel (Reactor) ILW	ILW	0	75.0	75.0	122	6.1
9H310	Mild Steel (Reactor) ILW	ILW	0	371.0	371.0	459	22.9
9H311	Graphite ILW	ILW	0	5,915.0	5,915.0	7,310	365
9H312	Stainless Steel (Reactor) Recycle LLW	LLW	0	287.0	287.0	0	0
9H313	Mild Steel (Reactor) LLW	LLW	0	51.0	51.0	99.5	5.1
9H315	Graphite LLW	LLW	0	2,737.0	2,737.0	2,740	0
9H316	Concrete (Reactor and Non-Reactor) LLW	LLW	0	57,208.0	57,208.0	57,200	0
9H317	Miscellaneous Metals and Materials (Reactor and Non-Reactor) LLW	LLW	0	224.0	224.0	437	22.4
9H318	Secondary Wastes LLW	LLW	0	1,571.0	1,571.0	1,570	0

Site Owner – Waste Custodian - Site		Waste type	Reported volume (m^3)			When wastes at 1.4.2019 and future arisings are packaged	
Stream Identifier	Title		At 1.4.2019	Future arisings	Total	Packaged volume (m^3)	Number of packages[(1)]
9H319	Miscellaneous Metals (Reactor) ILW	ILW	0	21.9	21.9	47.2	2.4
9H322	Mild Steel (Reactor) Recycle LLW	LLW	0	3,937.0	3,937.0	0	0
9H323	Pile Cap, Dry Fuel Store and Associated Areas LLW	LLW	0	683.3	683.3	102	0
9H324	Flask Handling Area and AETP LLW	LLW	0	77.9	77.9	11.7	0
9H325	Auxiliary Gas Systems LLW	LLW	0	41.1	41.1	3.2	0.2
9H326	Incinerator Building - LLW	LLW	0	65.4	65.4	65.4	0
9H327	Dry Store Cell 4	LLW	0	203.0	203.0	117	5.5
NDA - Magnox Limited - Hunterston A							
9J03	Ion Exchange Resins	ILW	0.5	0	0.5	0	0
9J03/C	Conditioned Ion Exchange Resin / sludge	ILW	156.2	0	156.2	185	71.0
9J19	Bunker Waste	ILW	560.2	0	560.2	1,140	350
9J20	Bunker Waste	ILW	502.0	0	502.0	986	302
9J21	Bunker Waste	ILW	488.4	0	488.4	971	297
9J22	Bunker Waste	ILW	109.4	0	109.4	196	59.9
9J23	Bunker Waste	ILW	595.4	0	595.4	685	210
9J33	CCP Sludge	ILW	50.7	0	50.7	226	86.7
9J33/C	Conditioned Sludge	ILW	70.4	0	70.4	83.5	32.0
9J45	Miscellaneous Activated Components R1	ILW	0.8	0	0.8	1.0	<0.1
9J46	Miscellaneous Activated Components R2	ILW	0.6	0	0.6	0.7	<0.1
9J52	Desiccant	ILW	6.5	0	6.5	0	0
9J59	Ion Siv Cartridges	ILW	0.1	0.1	0.2	13.1	4.0
9J60	Ion Siv Unit Post Filters	ILW	0.1	0	0.1	6.5	2.0
9J61	Pond Skip Decontamination Liquor	ILW	140.0	0	140.0	224	85.9
9J62	Bunker Graphite Fines	ILW	17.6	0	17.6	26.1	10.0
9J63	CCP Sludge	ILW	58.7	0	58.7	206	63.0
9J948	Reactor and Auxiliary Building LLW	LLW	0	159.6	159.6	131	0
9J949	Pond and Effluent Treatment Plant LLW	LLW	0	337.6	337.6	380	10.1
9J952	Redundant Sealed Sources	LLW	<0.1	<0.1	<0.1	<0.1	<0.1
9J100	General Reactor LLW	LLW	0	102.0	102.0	94.4	4.7
9J301	Graphite ILW	ILW	0	3,434.0	3,434.0	4,250	212

Site Owner – Waste Custodian - Site		Waste type	Reported volume (m^3)			When wastes at 1.4.2019 and future arisings are packaged	
Stream Identifier	Title		At 1.4.2019	Future arisings	Total	Packaged volume (m^3)	Number of packages[(1)]
9J302	Concrete (Reactor and Non-Reactor) LLW	LLW	0	29,212.0	29,212.0	29,200	0
9J303	Mild Steel (Reactor) ILW	ILW	0	246.0	246.0	304	15.2
9J306	Stainless Steel (Reactor) ILW	ILW	0	67.0	67.0	82.8	4.1
9J310	Stainless Steel (Reactor) Recycle LLW	LLW	0	5.2	5.2	0	0
9J311	Mild Steel (Reactor) LLW	LLW	0	818.0	818.0	1,600	81.8
9J312	Mild Steel (Non-Reactor) LLW	LLW	0	4,242.0	4,242.0	4,240	0
9J313	Graphite LLW	LLW	0	6.7	6.7	6.7	0
9J314	Miscellaneous Metals and Materials (Reactor and Non-Reactor) LLW	LLW	0	1,852.0	1,852.0	1,850	0
9J315	Secondary Wastes LLW	LLW	0	1,234.0	1,234.0	1,230	0
9J316	Miscellaneous Metals (Reactor) ILW	ILW	0	6.8	6.8	11.1	0.6
9J318	Mild Steel (Reactor) Recycle LLW	LLW	0	2,861.0	2,861.0	0	0
9J319	Reactor and Auxiliary Building LLW	LLW	0	469.7	469.7	255	11.4
9J320	Pond and Effluent Treatment Plant LLW	LLW	0	611.1	611.1	747	23.6
NDA - Magnox Limited - Berkeley Centre							
9R02	Miscellaneous ILW	ILW	11.0	0	11.0	7.9	6.0
9R10	ILW Ion Exchange Material	ILW	0.7	0	0.7	0	0
9R13	Steel Surveillance Canisters	ILW	0.4	0	0.4	0	0
9R14	Depleted Uranium	LLW	<0.1	0	<0.1	0.1	<0.1
9R15	Natural Uranium	LLW	<0.1	0	<0.1	0.1	<0.1
9R16	Low Enriched Uranium	LLW	<0.1	0	<0.1	0.1	<0.1
9R17	Irradiated Uranium	ILW	<0.1	0	<0.1	0	0
9R18	Thorium	LLW	<0.1	0	<0.1	0.1	<0.1
9R19	Graphite Samples	ILW	<0.1	0	<0.1	0	0
9R101	Berkeley Centre Decommissioning : Primary ILW	ILW	12.2	25.6	37.8	65.3	12.0
9R102	Berkeley Centre Decommissioning : Primary LLW	LLW	0	249.0	249.0	104	4.8
9R111	Berkeley Centre Decommissioning: LLW Ion Exchange Material	LLW	0.1	0	0.1	0.5	<0.1
9R112	Redundant Radioactive Sources	ILW	0.1	0	0.1	0	0
9R113	Redundant Radioactive Sources	LLW	<0.1	0	<0.1	3.0	0.2
9R115	Miscellaneous Oily Wastes (WRATs)	LLW	0.2	0	0.2	2.0	0.2
9R116	High Enriched Uranium	LLW	<0.1	0	<0.1	0.1	<0.1

Site Owner – Waste Custodian - Site		Waste type	Reported volume (m^3)			When wastes at 1.4.2019 and future arisings are packaged	
Stream Identifier	Title		At 1.4.2019	Future arisings	Total	Packaged volume (m^3)	Number of packages(1)
9R118	Radiochemical Laboratory Samples	ILW	0.7	0	0.7	0	0
9R121	Encapsulated Radioactive Sources	LLW	0	0.1	0.1	0.1	<0.1
NDA - Magnox Limited - Sellafield							
9Z201	Magnox Fuel Transport Flasks	LLW	0	351.0	351.0	17.6	0
9Z203	Rail Flatrols	LLW	0	39.0	39.0	76.1	3.9

(1) Package numbers are not reported for LLW and VLLW suitable for landfill disposal (such lightly contaminated waste does not require the same degree of engineered protection provided by the LLWR and the Dounreay LLW facility). A nominal packaged volume is given that is the same as the reported volume.

(2) Stream 9C02/C is located at Bradwell ISF as part of regional storage strategy.

(3) Stream 9E56/C is located at Berkeley ISF as part of regional storage strategy.

7 RADIONUCLIDE COMPOSITION OF WASTES

This section provides information on the radionuclide composition of HLW, ILW, LLW and VLLW.

Table 6.1 gives the radioactivities of radionuclides in all wastes at 1 April 2019 and at 1 April 2200 (decayed values). Figures 6.1-6.4 show those radionuclides that are the major contributors to the radioactivities of HLW, ILW, LLW and VLLW respectively, and how these contributions change with time.

Table 6.1: Radionuclide activities for all wastes

Radionuclide	Half-life (years)	Radionuclide activity (TBq) [1] At 1.4.2019				At 1.4.2200			
		HLW	ILW	LLW	VLLW	HLW	ILW	LLW	VLLW
H3	1.23E+01	1.1E+2	4.3E+4	4.3E+0	2.7E-3	1.3E-3	2.7E+0	9.4E-2	7.5E-3
Be10	1.60E+06	4.0E-2	3.3E-1	-	-	3.9E-2	3.3E-1	4.7E-4	-
C14	5.73E+03	3.6E+0	9.3E+2	2.1E-1	3.9E-4	1.1E+0	9.9E+3	1.7E+1	7.1E-2
Na22	2.60E+00	-	1.3E+0	5.7E-3	6.9E-11	-	3.7E-20	-	-
Al26	7.17E+05	-	4.3E-2	-	-	-	3.8E-2	1.0E-2	1.6E-5
Cl36	3.02E+05	1.8E+0	7.1E+0	3.1E-2	5.2E-8	1.8E+0	4.4E+1	2.1E+0	3.8E-2
Ar39	2.69E+02	-	1.7E+0	-	-	-	2.5E+1	4.8E-4	-
Ar42	3.30E+01	-	1.8E-3	-	-	-	2.0E-4	-	-
K40	1.28E+09	2.3E-14	3.7E-2	1.6E-4	1.5E-5	2.0E-14	4.3E-2	8.2E-5	1.5E-5
Ca41	1.03E+05	3.4E-1	4.3E+0	-	-	2.9E-1	2.1E+1	6.9E+0	2.8E-4
Mn53	3.70E+06	1.4E-7	2.5E+0	4.8E-7	-	1.4E-7	2.5E+0	4.8E-7	-
Mn54	8.56E-01	1.4E+0	3.9E+3	1.8E-2	3.2E-7	-	-	-	-
Fe55	2.70E+00	2.0E+3	5.5E+5	3.0E-1	1.5E-3	2.9E-17	7.0E-7	6.4E-12	5.8E-11
Co60	5.27E+00	1.1E+4	6.1E+5	1.1E+0	7.1E-3	5.2E-7	2.5E-3	1.7E-6	1.5E-7
Ni59	7.49E+04	3.3E+0	9.1E+3	4.2E-5	9.0E-9	3.4E+0	1.1E+4	1.4E+0	4.2E-7
Ni63	1.00E+02	3.6E+2	9.3E+5	2.3E+0	7.5E-2	1.0E+2	3.3E+5	4.5E+1	8.1E-2
Zn65	6.69E-01	1.3E-3	9.4E+1	6.6E-4	8.0E-8	-	-	-	-
Se79	3.77E+05	2.1E+1	1.2E+0	1.6E-8	-	2.1E+1	1.3E+0	2.9E-5	-
Kr81	2.10E+05	-	2.9E-4	-	-	-	5.8E-2	-	-
Kr85	1.07E+01	-	3.7E+3	3.2E-5	-	-	3.1E-2	3.5E-9	-

Radionuclide	Half-life (years)	Radionuclide activity (TBq) [1] At 1.4.2019				At 1.4.2200			
		HLW	ILW	LLW	VLLW	HLW	ILW	LLW	VLLW
Rb87	4.80E+10	8.5E-3	4.4E-5	-	-	8.2E-3	4.4E-4	-	-
Sr90	2.91E+01	1.7E+7	3.0E+5	1.6E+0	9.9E-5	2.1E+5	4.0E+3	2.4E-1	1.3E-1
Zr93	1.53E+06	7.2E+2	3.9E+1	6.9E-7	-	7.0E+2	4.1E+1	1.9E-4	-
Nb91	6.80E+02	5.0E-12	1.7E-3	-	-	4.0E-12	1.0E-1	7.3E-6	-
Nb92	3.50E+07	1.1E-9	1.7E-5	-	-	1.1E-9	5.6E-5	5.7E-8	-
Nb93m	1.64E+01	4.7E+2	6.4E+1	2.9E-4	-	6.8E+2	1.2E+2	4.0E-1	3.4E-9
Nb94	2.03E+04	2.5E-1	2.2E+2	5.8E-4	-	2.4E-1	2.8E+2	3.5E-2	-
Mo93	3.50E+03	2.8E-1	5.9E+1	2.9E-4	9.0E-11	2.7E-1	9.4E+1	4.8E-1	4.0E-9
Tc97	2.60E+06	9.9E-9	3.9E-9	-	-	9.6E-9	3.7E-6	-	-
Tc99	2.13E+05	3.6E+3	7.9E+2	7.5E-3	1.3E-11	3.5E+3	1.3E+3	3.8E-1	3.7E-1
Ru106	1.01E+00	4.3E+4	8.3E+3	1.1E-3	-	-	-	-	-
Pd107	6.50E+06	3.8E+1	8.6E-1	-	-	3.7E+1	8.6E-1	1.7E-5	-
Ag108m	4.18E+02	2.5E-3	2.2E+3	1.6E-3	-	1.8E-3	1.6E+3	3.4E-2	-
Ag110m	6.84E-01	7.0E+0	1.6E+2	5.5E-4	6.7E-9	-	-	-	-
Cd109	1.27E+00	4.0E-4	1.8E+0	9.5E-6	-	-	-	-	-
Cd113m	1.41E+01	2.0E+3	1.4E+2	5.1E-5	-	2.1E-1	1.5E-2	2.2E-7	-
Sn119m	8.02E-01	5.9E-1	3.6E-3	-	-	-	-	-	-
Sn121m	5.00E+01	5.4E+3	1.8E+2	8.6E-6	-	5.4E+2	2.1E+1	5.6E-3	-
Sn123	3.54E-01	2.8E-2	2.3E-4	-	-	-	-	-	-
Sn126	2.30E+05	1.2E+2	5.5E+0	4.3E-8	-	1.1E+2	5.5E+0	2.4E-4	-
Sb125	2.73E+00	5.1E+4	4.5E+3	7.9E-3	7.2E-8	1.1E-15	2.2E-14	4.9E-14	1.5E-12
Sb126	3.39E-02	3.8E+1	3.4E+0	-	-	1.6E+1	7.7E-1	3.4E-5	-
Te125m	1.59E-01	1.2E+4	1.2E+3	1.4E-4	-	2.8E-16	5.5E-15	1.2E-14	3.6E-13
Te127m	2.98E-01	1.5E-2	1.5E-7	-	-	-	-	-	-
I129	1.57E+07	1.1E-1	8.2E-1	2.2E-5	-	1.1E-1	9.4E-1	2.0E-3	6.8E-2
Cs134	2.06E+00	8.0E+4	3.2E+3	7.1E-3	2.3E-9	-	4.3E-14	1.4E-15	1.1E-15
Cs135	2.30E+06	2.3E+2	8.0E+0	8.4E-8	-	2.2E+2	8.1E+0	2.1E-3	-

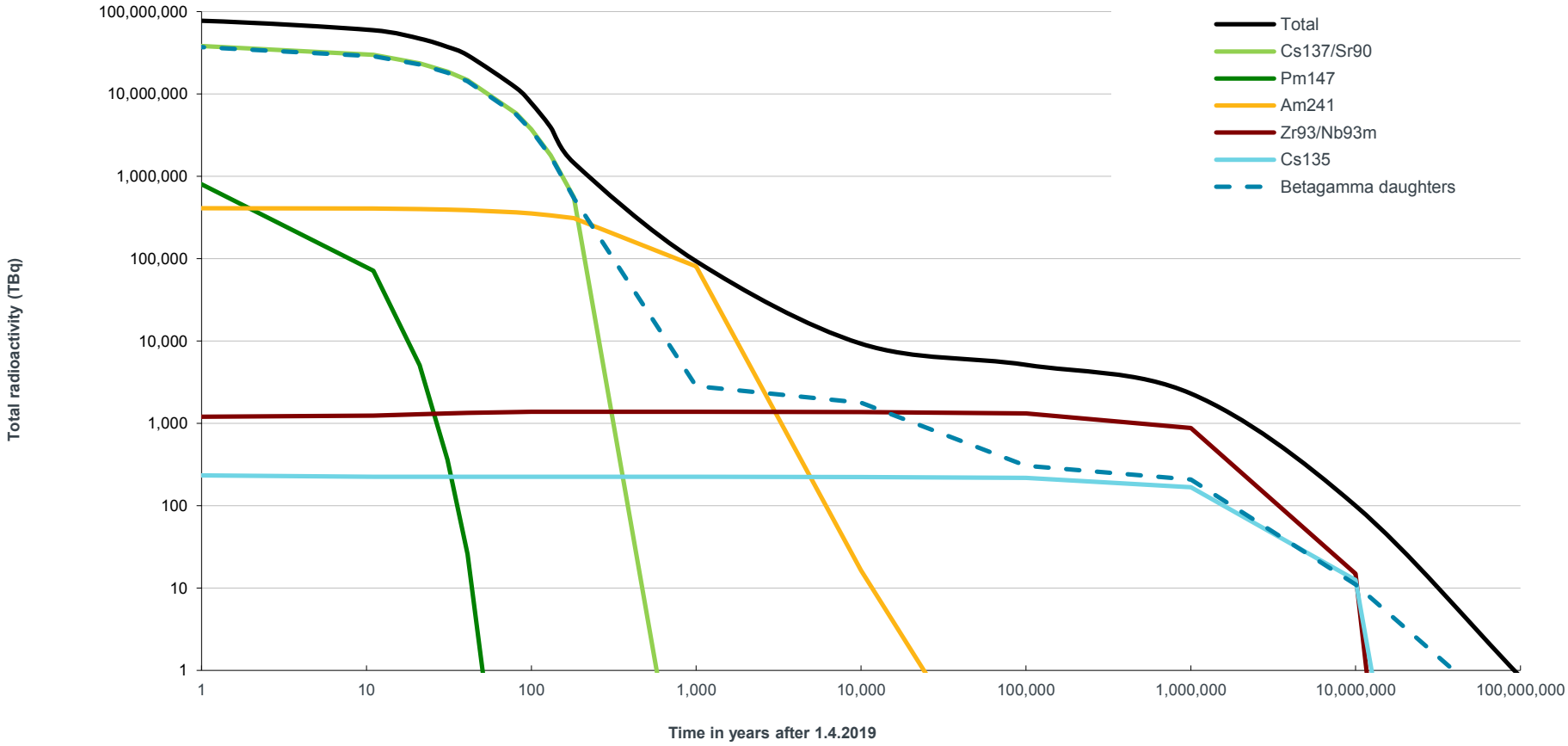
Radionuclide	Half-life (years)	Radionuclide activity (TBq) [1] At 1.4.2019				At 1.4.2200			
		HLW	ILW	LLW	VLLW	HLW	ILW	LLW	VLLW
Cs137	3.00E+01	2.3E+7	5.0E+5	6.6E+0	2.1E-3	3.5E+5	8.1E+3	9.1E-1	8.8E-2
Ba133	1.05E+01	3.5E-4	4.0E-1	6.3E-4	1.7E-5	2.5E-9	1.0E-4	3.8E-6	1.2E-10
La137	6.00E+04	5.5E-4	7.0E-3	-	-	5.4E-4	1.5E-2	1.2E-5	-
La138	1.05E+11	1.6E-8	6.3E-10	-	-	1.6E-8	2.0E-2	-	-
Ce144	7.80E-01	2.6E+4	7.0E+3	8.6E-4	-	-	-	-	-
Pm145	1.77E+01	5.0E-2	1.5E+0	-	-	3.6E-5	8.9E-3	1.3E-5	-
Pm147	2.62E+00	1.0E+6	2.0E+4	1.3E-2	-	2.2E-15	1.1E-13	5.4E-14	3.2E-12
Sm147	1.06E+11	3.2E-3	3.7E-4	-	-	3.1E-3	3.7E-4	1.0E-11	2.0E-12
Sm151	8.87E+01	1.3E+5	5.1E+3	1.9E-2	-	3.2E+4	1.3E+3	3.7E-1	2.9E-4
Eu152	1.33E+01	1.0E+3	2.0E+4	4.7E-3	3.9E-4	9.1E-2	1.8E+0	1.8E-2	1.4E-7
Eu154	8.60E+00	3.0E+5	3.9E+3	8.9E-3	7.1E-5	1.3E-1	2.0E-3	6.8E-5	7.7E-7
Eu155	4.96E+00	4.8E+4	1.4E+3	2.7E-3	2.9E-6	2.9E-7	1.6E-8	1.4E-9	8.4E-9
Gd153	6.61E-01	3.6E-2	6.6E+0	-	-	-	-	-	-
Ho163	4.57E+03	9.8E-6	1.7E-2	-	-	9.2E-6	9.7E-2	1.2E-4	-
Ho166m	1.20E+03	9.6E-2	4.2E-2	9.3E-11	-	8.3E-2	5.3E-1	7.4E-3	-
Tm170	3.52E-01	2.7E-7	8.4E-2	-	-	-	-	-	-
Tm171	1.92E+00	4.9E-1	2.6E-2	-	-	-	-	-	-
Lu174	3.31E+00	-	2.8E+0	-	-	-	6.1E-14	-	-
Lu176	3.61E+10	-	6.0E-5	-	-	-	6.0E-5	-	-
Hf178n	3.10E+01	-	2.4E-2	6.5E-4	-	-	2.1E-2	1.1E-5	-
Hf182	8.99E+06	2.3E-10	2.4E-6	-	-	2.3E-10	1.4E-3	-	-
Pt193	5.07E+01	-	1.3E-1	-	-	-	1.2E-1	2.4E-3	-
Tl204	3.78E+00	-	4.6E-1	-	-	-	2.1E-12	8.5E-14	-
Pb205	1.52E+07	4.6E-7	7.5E-5	-	-	5.2E-7	3.1E-3	-	-
Pb210	2.23E+01	2.3E-4	1.5E+0	8.3E-4	2.1E-6	5.1E-3	8.9E+0	1.3E-1	8.8E-2
Bi208	3.68E+05	-	8.0E-8	-	-	-	3.4E-5	-	-
Bi210m	3.00E+06	1.5E-11	3.4E-7	-	-	1.7E-11	1.7E-4	7.9E-6	-

Radionuclide	Half-life (years)	Radionuclide activity (TBq) [1] At 1.4.2019				At 1.4.2200			
		HLW	ILW	LLW	VLLW	HLW	ILW	LLW	VLLW
Po210	3.79E-01	2.2E-4	2.6E-1	6.5E-3	1.7E-6	5.1E-3	8.9E+0	1.3E-1	8.7E-2
Ra223	3.13E-02	5.0E-3	3.1E-1	4.7E-6	5.2E-8	9.1E-3	9.2E-2	4.2E-4	6.6E-4
Ra225	4.08E-02	3.2E-5	3.5E-3	2.6E-10	-	4.0E-4	3.1E-2	1.6E-5	3.7E-3
Ra226	1.60E+03	7.2E-4	9.3E+0	4.2E-2	1.0E-5	6.1E-3	8.8E+0	1.3E-1	9.0E-2
Ra228	5.75E+00	4.7E-8	6.1E-2	1.1E-4	1.0E-5	5.3E-8	1.1E-1	1.7E-3	1.4E-2
Ac227	2.18E+01	5.0E-3	7.1E-1	4.9E-6	5.2E-8	9.1E-3	9.1E-2	4.2E-4	6.6E-4
Th227	5.12E-02	4.9E-3	3.1E-1	4.7E-6	5.1E-8	9.0E-3	9.0E-2	4.1E-4	6.5E-4
Th228	1.91E+00	1.4E-1	1.1E+0	2.0E-4	2.4E-6	1.5E-4	4.0E-1	1.9E-3	1.6E-2
Th229	7.34E+03	3.2E-5	3.7E-3	5.9E-9	4.7E-13	4.0E-4	3.1E-2	1.6E-5	3.7E-3
Th230	7.54E+04	7.3E-2	6.7E-2	2.2E-4	1.3E-5	7.2E-2	1.1E-1	6.0E-3	1.9E-2
Th232	1.41E+10	5.3E-8	9.4E-2	1.8E-4	8.0E-5	5.3E-8	1.1E-1	1.7E-3	1.4E-2
Th234	6.60E-02	3.1E-2	1.8E+1	5.3E-3	2.6E-4	3.0E-2	2.2E+1	2.3E-1	2.3E+0
Pa231	3.28E+04	9.6E-3	6.9E-2	3.3E-5	5.2E-8	9.1E-3	9.0E-2	4.8E-4	8.9E-4
Pa233	7.39E-02	4.2E+1	8.4E+1	3.6E-3	4.5E-6	6.3E+1	1.2E+2	1.3E-2	7.6E-2
U232	6.98E+01	8.2E-4	1.1E+0	9.9E-5	4.2E-12	1.5E-4	2.8E-1	1.8E-4	2.4E-3
U233	1.59E+05	2.5E-3	1.5E+0	3.3E-4	4.5E-6	4.4E-2	1.6E+0	9.9E-4	3.3E-1
U234	2.46E+05	1.1E-1	2.1E+1	1.0E-1	3.4E-5	6.6E-1	2.7E+1	1.5E+0	2.0E+0
U235	7.04E+08	1.2E-3	5.9E-1	4.6E-2	1.1E-5	1.2E-3	7.1E-1	9.4E-2	3.5E-1
U236	2.34E+07	9.1E-3	1.9E+0	5.2E-3	3.0E-11	1.5E-2	2.0E+0	5.0E-2	1.8E-1
U238	4.47E+09	3.1E-2	2.0E+1	1.9E-2	2.6E-4	3.0E-2	2.2E+1	2.3E-1	2.3E+0
Np237	2.14E+06	4.2E+1	8.5E+1	3.7E-3	4.5E-6	6.3E+1	1.2E+2	1.3E-2	7.6E-2
Pu236	2.90E+00	1.0E-3	3.5E+0	-	-	-	2.3E-18	-	-
Pu238	8.77E+01	1.4E+3	6.3E+3	6.1E-1	7.8E-5	7.9E+2	2.0E+3	2.5E-1	2.1E-2
Pu239	2.41E+04	3.1E+2	1.1E+4	8.3E-1	2.1E-4	3.3E+2	1.4E+4	2.4E+0	1.5E-1
Pu240	6.56E+03	7.6E+2	1.2E+4	2.8E-1	2.1E-4	1.1E+3	1.4E+4	1.0E+0	1.7E-1
Pu241	1.44E+01	2.5E+4	2.5E+5	3.1E+0	7.7E-4	3.9E+1	7.2E+1	7.4E-3	2.1E-1
Pu242	3.74E+05	1.4E+0	7.6E+0	8.6E-5	1.6E-9	1.4E+0	9.2E+0	3.0E-4	3.6E-3

Radionuclide	Half-life (years)	Radionuclide activity (TBq) [1] At 1.4.2019				At 1.4.2200			
		HLW	ILW	LLW	VLLW	HLW	ILW	LLW	VLLW
Am241	4.33E+02	4.1E+5	3.3E+4	1.1E+0	2.6E-4	3.1E+5	3.3E+4	3.2E+0	1.9E-1
Am242m	1.41E+02	1.3E+3	2.1E+2	4.3E-4	-	5.0E+2	8.6E+1	1.8E-3	-
Am243	7.36E+03	2.6E+3	2.5E+1	6.7E-6	-	2.4E+3	2.5E+1	5.4E-4	2.0E-10
Cm242	4.46E-01	1.0E+3	2.5E+2	3.8E-4	5.3E-12	4.1E+2	7.1E+1	1.5E-3	-
Cm243	3.00E+01	1.7E+3	3.7E+1	1.2E-3	-	2.5E+1	5.8E-1	2.9E-5	3.6E-7
Cm244	1.81E+01	1.6E+5	6.9E+2	8.2E-3	3.8E-9	1.5E+2	8.0E-1	8.7E-5	1.5E-4
Cm245	8.50E+03	3.6E+1	5.2E-2	7.2E-4	-	3.5E+1	5.7E-2	1.8E-3	2.1E-1
Cm246	4.73E+03	8.6E+0	9.0E-3	-	-	7.9E+0	9.2E-3	1.2E-5	1.9E-2
Cm248	3.40E+05	7.7E-5	7.5E-3	3.2E-5	-	7.2E-5	1.5E+1	3.2E-5	-
Cf249	3.51E+02	6.2E-4	1.9E-4	-	-	4.0E-4	2.0E-4	-	-
Cf250	1.31E+01	1.5E-3	4.6E-5	-	-	1.0E-7	1.3E-7	-	-
Cf251	8.98E+02	3.0E-5	6.8E-8	-	-	2.4E-5	1.1E-7	4.8E-5	-
Cf252	2.65E+00	2.2E-5	2.3E-1	6.9E-10	-	-	2.1E-16	-	-
Alpha daughters		5.3E-1	3.3E+1	1.3E-1	4.0E-5	4.8E-2	2.8E+1	3.9E-1	3.4E-1
Beta/gamma daughters		3.8E+7	8.0E+5	8.9E+0	2.6E-3	5.4E+5	2.6E+4	4.1E+0	3.3E+0

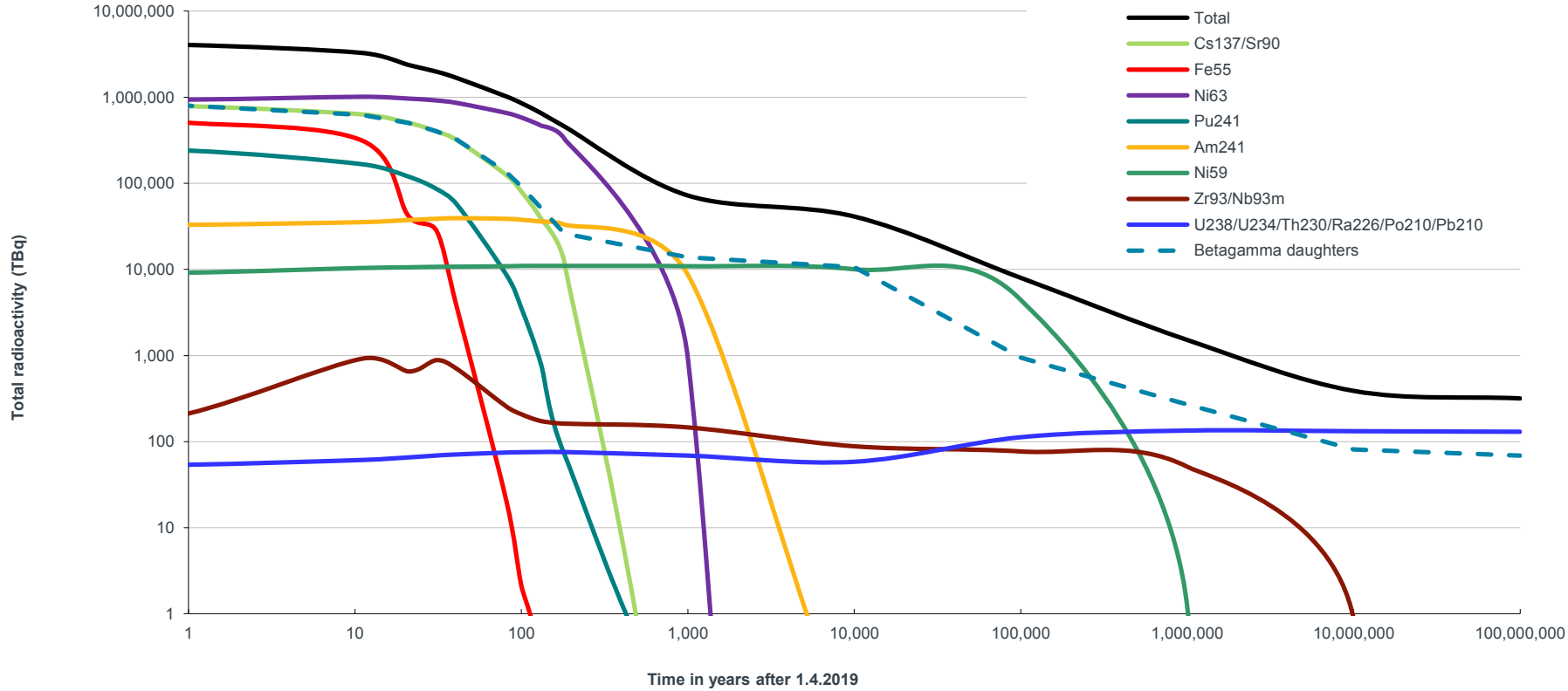
(1) Only waste streams with a quantified radionuclide concentration contribute to this table.

Figure 6.1: HLW activity as a function of time post 1 April 2019



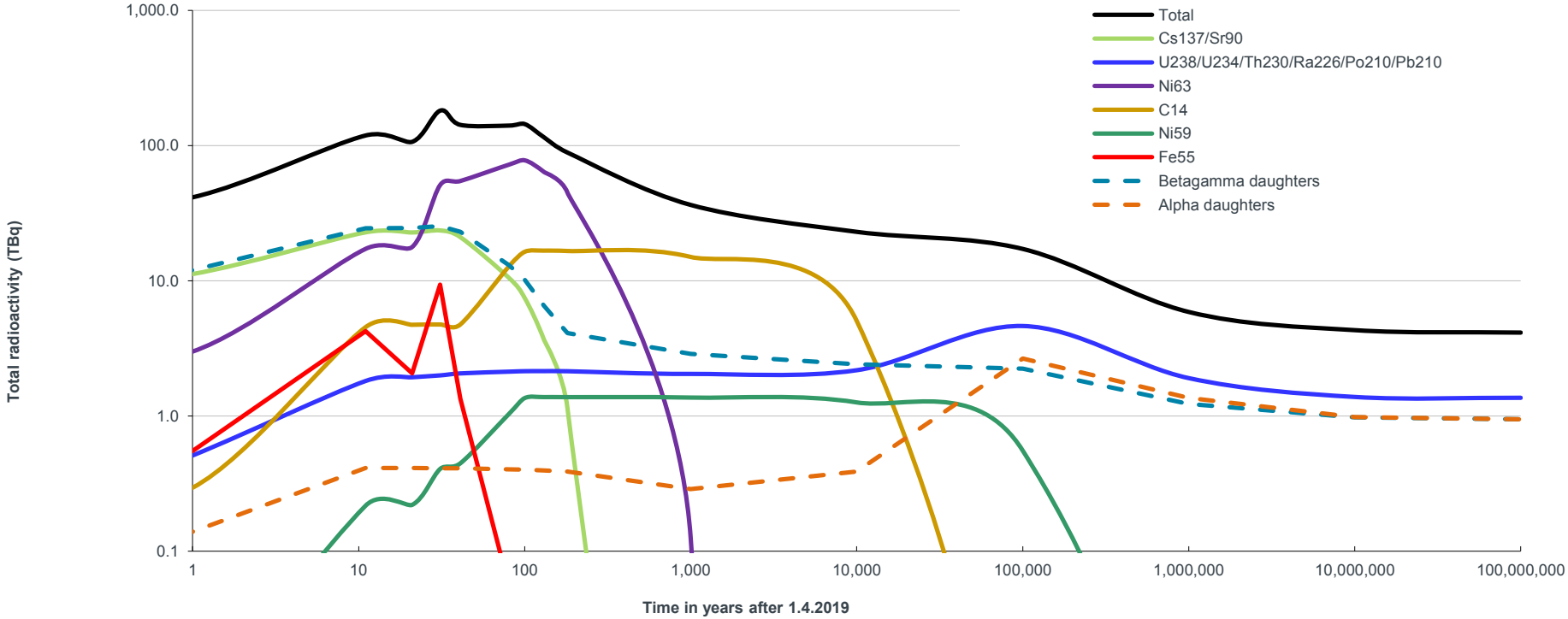
HLW comprises the waste fission products from reprocessing spent nuclear fuel. The total activity of HLW for about 300 years following 1 April 2019 is largely due to the activities of the fission products Sr90 and Cs137 and their short-lived daughters (Y90 and Ba137m respectively). Both Sr90 and Cs137 have a radioactive half-life of about 30 years. Thereafter increasing longer half-life radionuclides make significant contributions, including Am241, Zr93 and Nb93m.

Figure 6.2: ILW activity as a function of time post 1 April 2019



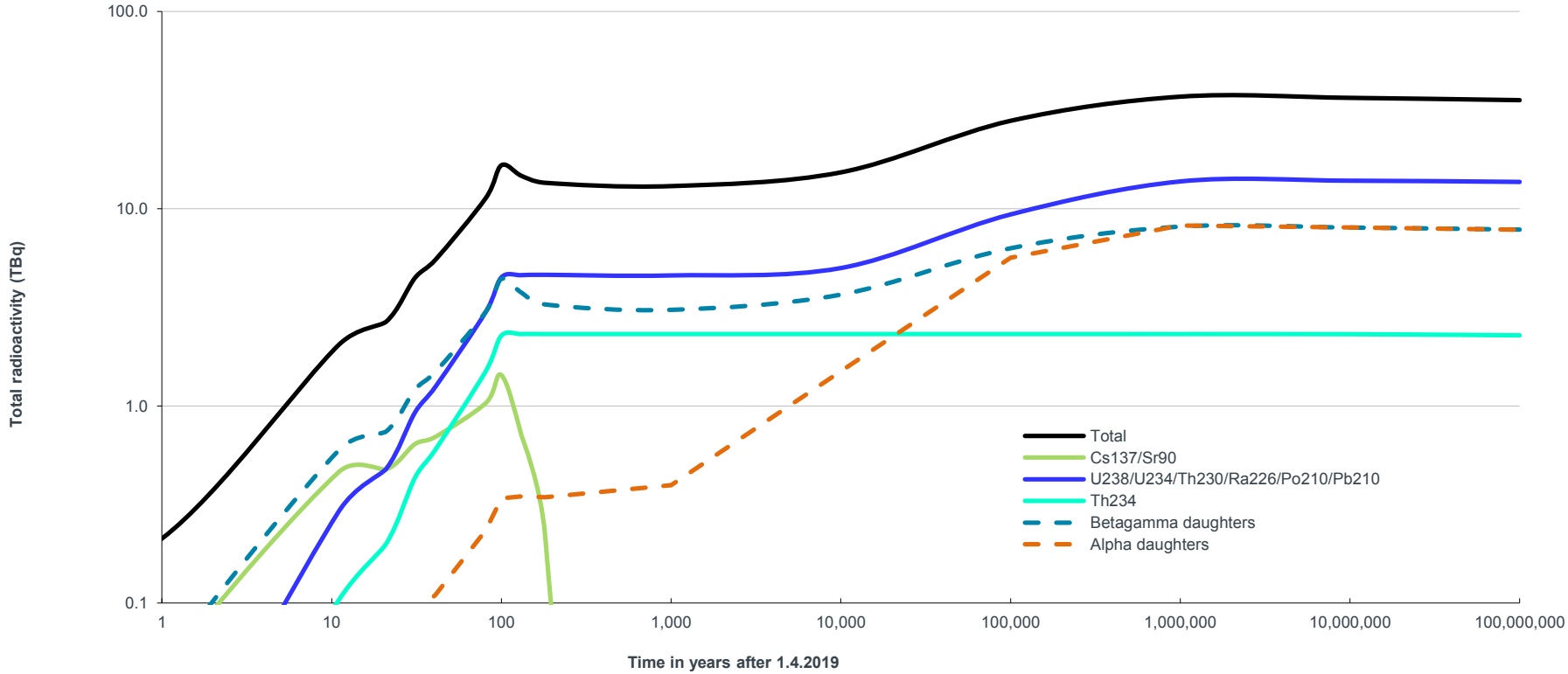
ILW comprises wastes that have been activated by neutrons in reactors as well as wastes that have been contaminated with fission products and/or uranium and its radioactive decay products. In the first 300 years following 1 April 2019 the major contributor to the total activity of ILW is the activation product Ni63, and the fission products Sr90 and Cs137 and their short-lived daughters (Y90 and Ba137m respectively). Thereafter a number of increasing longer half-life radionuclides make significant contributions, including the activation product Ni59. After a few millions of years uranium and its radioactive daughters are predominant.

Figure 6.3: LLW activity as a function of time post 1 April 2019



LLW comprises wastes that have been activated by neutrons in reactors as well as wastes that have been contaminated with fission products and/or uranium and its radioactive decay products. In the first 300 years following 1 April 2019 the major contributors to the total activity of LLW are the activation product Ni63, and the fission products Sr90 and Cs137 and their short-lived daughters (Y90 and Ba137m respectively). Thereafter a number of longer half-life radionuclides make significant contributions, including activation products C14 and Ni59. After about 100,000 years uranium and its radioactive daughters are predominant.

Figure 6.4: VLLW activity as a function of time post 1 April 2019



VLLW principally comprises wastes that have been contaminated with uranium and its radioactive decay products and with fission products. Apart from the first 100 years following 1 April 2019, the major contributor to the total activity of VLLW is uranium and its radioactive daughters.

Half-height ISO containers at the LLWR

APPENDIX A INVENTORY DATA REPORTING CONVENTIONS

A large amount of information is collated in producing the Inventory. As radioactive wastes arise from diverse sources and in a large number of different forms, certain conventions have been adopted in order to compile and report this information in a consistent manner.

Similar conventions are used in compiling information for radioactive materials, although there are far fewer forms of material and less information is collated.

The fundamental designation used in the Inventory is that of the waste stream. Waste streams include waste or a collection of waste items at a particular site, usually in a particular facility and/or from particular processes or operations. A waste stream is often distinguishable by its radionuclide content and in many cases also by its physical and chemical characteristics.

Each waste stream in the Inventory is allocated a unique identification code. A complete list of waste streams in the 2019 Inventory, and their identifiers, is given in Section 6.

Reporting of wastes at category boundaries

The Inventory categorises each waste stream as HLW, ILW, LLW or VLLW and indicates whether it is expected to be managed as Higher Activity Waste (HAW) through geological disposal (or long-term storage in the case of Scottish policy wastes) or as Lower Activity Waste (LAW) through near-surface disposal or suitable alternative management routes in accordance with the waste hierarchy. At the boundaries between the ILW and LLW categories there are a number of LLW streams where geological disposal may be more appropriate and some ILW streams, particularly those containing short-lived radionuclides, where a more appropriate management route could be in a near-surface environment.

Where current or planned waste management practices, including future treatment, will result in all or part of an existing ILW stream being managed at some point in the future as LLW, an ILW categorisation is reported in the Inventory and information is provided on how the waste is treated and its disposal route.

Similarly, certain LLW may be treated (e.g. by decontamination, incineration, metal melting) such that the bulk of the material is no longer classed as radioactive waste, and residual activity managed through conventional disposal routes. Where these treatments are part of current waste management strategy, they lead to reduced estimates of packaged volumes requiring longer-term management.

Site contamination

The Inventory includes wastes associated with radioactively contaminated land and subsurface structures:

1. Radioactive land contamination (e.g. soil) if it is excavated (e.g. for treatment or to access another subsurface structure, such as a pipeline)
2. Buildings and structures that are beneath the surface and radioactively contaminated above out-of-scope levels (e.g. reactor basements, below ground ponds and radioactive effluent pipelines) that will be excavated and disposed of ex situ or that will be disposed of in situ.

Radioactive land contamination is not considered to be waste if there is no intention to excavate it (i.e. to leave it in situ). Radioactive land contamination may be managed in-situ pending better future characterisation and decisions about its longer-term management. Such material, as well as

subsurface structures, may be given separately in the report *'2019 UK Radioactive Material Inventory'*, where there is significant uncertainty over the management route and/or waste amounts.

Reporting of volume

The Inventory presents radioactive waste volumes in three different ways to satisfy user needs:

1. Reported volume
2. Conditioned volume
3. Packaged volume (the number of packages is also given).

The following sections explain what these volumes represent and why they are quantified.

Reported volume

For wastes that exist at the Inventory stock date of 1 April 2019 the reported volume is the volume they take up. It is the volume the wastes occupy inside the tanks, vaults, silos and drums in which they are contained. Most wastes are in an untreated or partly treated form, while some have already been processed or conditioned for disposal or longer-term storage.

For wastes that will arise in the future, the reported volume is the volume that waste producers forecast will be generated. Most of the activity already exists (for example in reactor structures), but will only arise as waste during the decommissioning of nuclear facilities and site clean-up. Other radioactive waste - that from future planned operations - has yet to be produced.

In general the reported volumes of future arisings reflect current individual waste stream management practices. Hence where new waste is being conditioned directly it arises, the reported volume is also the conditioned volume.

The volumes of future waste arisings are given for financial years April to March. For simplicity in presentation and discussion of waste volumes the financial year April 2019 to March 2020, for example, is referred to as '2019', and the period April 2020 to March 2025, for example, is referred to as '2020-2024'.

A reliable inventory of existing waste stocks and forecast future arisings is required for planning waste handling, storage, transport and the capacity of waste processing facilities.

Conditioned volume

To package wastes for safe long-term management through storage or disposal, it is often necessary to mix the waste with an 'immobilising medium', to create a solid, stable wasteform. The immobilising medium may be a cement-based material, glass or polymer. This 'conditioning' helps to reduce the hazards posed by the waste. The conditioned volume is the volume of the 'wasteform' (waste plus immobilising medium; also called the 'container payload') within the package (see Figure A1)[4].

Before being immobilised suitable waste may be treated in a way that changes its volume (e.g. compaction). This is accounted for in the conditioned volume.

Waste that is treated to remove its activity so that it is out-of-scope, or waste that is incinerated, does not appear in conditioned volumes.

[4] *For those waste streams where the waste producer has not specified the volume of waste loaded into each container for conditioning, this volume is assumed to be equal to the payload of the container. This assumption is made in order that total conditioned volumes can be reasonably estimated.*

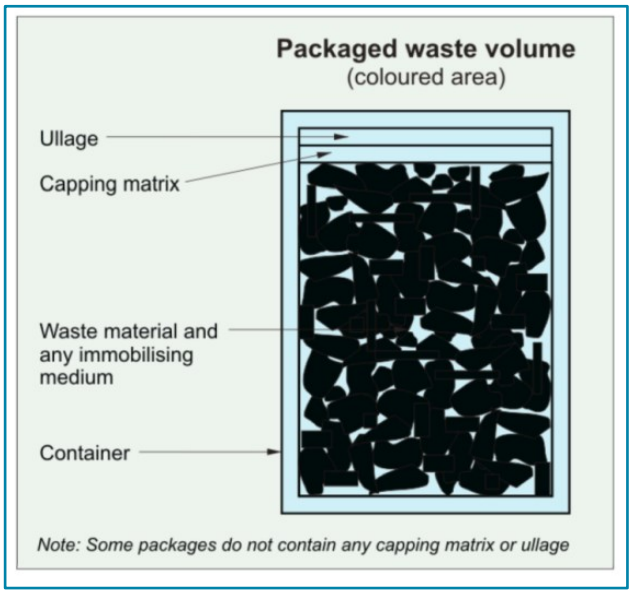
Where wastes are not conditioned in disposal packages, a nominal conditioned volume is given in the Inventory that is equal to the container payload.

Conditioned volume is used in the development of safety cases for waste storage and disposal facilities.

Packaged volume

Waste is placed into packages for long-term management. In most cases this involves conditioning. The packaged volume is the total volume taken up by the waste, the immobilising medium and the waste container (see Figure A1). Typically the packaged volume is between 20% and 50% greater than the conditioned volume, depending on the type of container. The number of waste packages is also given in the Inventory[5].

Figure A1: Illustration of packaged volume



The packaged volume represents the final waste volume, and this together with the number of packages is important information used to plan the size of new disposal and long-term storage facilities.

Waste that is treated to remove its activity so that it is out-of-scope or waste that is incinerated does not appear in packaged volumes.

The conditioned volume applies to the volume of waste material and immobilising medium and excludes any capping matrix, ullage and container volume.

No data are compiled on packaging that may be associated with LLW and VLLW suitable for landfill disposal (such lightly contaminated waste does not require the same degree of engineered protection provided by the LLWR and the Dounreay LLW facility). Package numbers are not reported, but a nominal packaged volume is given that is the same as the reported volume.

[5] For those streams where the waste producer has not specified the type of package, it has been assumed in calculations that operational and early stage decommissioning ILW would go into 500-litre drums, or for large waste items 4 m ILW boxes (capacity 11 m^3); final stage decommissioning ILW into 4m boxes; and all LLW into half-height ISO containers (nominal capacity 15.6 m^3). These assumptions are made in order that the total number of packages and total packaged volume can be reasonably estimated.

Volume uncertainty

Inventory waste volumes are estimates based on the best information available to waste producers at the stock date. There may be difficulties or impracticalities in accurately measuring or calculating waste volumes; for example how much sludge is held in a storage tank or how much radioactive structural concrete will result from decommissioning a building. Understanding the uncertainties in waste volumes is important in supporting effective waste management planning.

Uncertainty in reported volumes in the 2019 Inventory is quantified by lower and upper factors for stocks and forecast future arisings. In general uncertainties are lower for waste stocks and near-term future arisings, and higher for longer-term arisings particularly those from facility decommissioning and site clean-up.

Overall the uncertainties in conditioned volumes and packaged volumes are expected to be higher than for reported volumes as packaging schemes are often still under development, particularly for decommissioning wastes.

The Inventory does not record uncertainties in the quantities of nuclear materials, but in general these are very low. Detailed records are kept of all nuclear materials that are received and processed at nuclear sites; these records are the basis for nuclear materials accountancy. International safeguards inspectors from the European Commission and the International Atomic Energy Agency (IAEA) regularly monitor how civil nuclear materials are handled and accounted for. This verification provides an overview of the systems that keep track of civil nuclear material and the records of the quantities involved.

Physical and chemical composition of wastes

Information is collected on the physical items that make up the waste and the metal, organic and inorganic components, and any hazardous substances and non-hazardous pollutants.

Waste groups

Radioactive wastes arise in a variety of chemical and physical forms. Waste can range from large solid items that are relatively inert to chemically reactive sludges and liquids. These different forms of waste may need separate management arrangements that include conditioning and packaging solutions appropriate for their properties.

Hence waste streams in the Inventory have been divided into broad waste groups to inform the development of strategies for managing these wastes. These groups are listed in Table A1. They are based on those used in the document '*An Overview of NDA Higher Activity Wastes*'[6], but extended to include all waste streams in the Inventory.

Most 2019 Inventory waste streams can be assigned to a single waste group, although some streams contain wastes that fall into more than one group.

6 Nuclear Decommissioning Authority, "An Overview of NDA Higher Activity Waste," Ref. 23366104, November 2015.

Table A1: Designated waste groups

Activated metals	Flocs	Mixed wastes(1)
Activated other materials	Fuel cladding & miscellaneous wastes	Oils and other fluids
Asbestos and other insulation materials	Fuel element debris	Organic ion exchange materials
Concrete & rubble	Fuels & uranium residues	Plutonium contaminated material (PCM)
Conditioned waste	HLW	Raffinate
Contaminated metals	Graphite	Sludges
Contaminated other materials	Inorganic ion exchange material	Soil
Desiccant & catalysts	Miscellaneous contaminated materials	Uranium and thorium contaminated material

(1) Comprises a mix of activated and contaminated materials.

Radioactivity and radionuclide composition of wastes

Information is collected on the average concentrations of radionuclides and total activity in waste, and on the uncertainty in these values.

Radioactivity

Radioactivity is the spontaneous splitting of unstable atomic nuclides, which may be naturally occurring or man-made, with release of energy through emission of one or more sub-atomic particles and/or radiation. Unstable nuclides are known as radionuclides (also called radioisotopes), and the transformation process is known as radioactive decay. Each radionuclide has a unique half-life, which is the time required for one half of the atoms to decay. Half-lives vary enormously, from a fraction of a second to billions of years[7].

Radionuclides

Atomic nuclei are distinguished by their mass and atomic number. Several hundred different radionuclides are produced in nuclear reactors; many are of short radioactive half-life and so decay completely or to very low levels before they can appear in wastes. Radionuclides are specified by the symbol of their chemical element and their atomic mass (e.g. chlorine-36 is the radioactive nuclide of

[7] *To find out more about the origin and types of radioactivity you can refer to a report published by NDA: 'Understanding activities that produce radioactive wastes in the UK', 2015.*

chlorine with an atomic mass of 36). Some radionuclides exist in a metastable state[8]: this is indicated by a suffix 'm' or 'n' (e.g. silver-110m).

The 2019 Inventory includes information on 114 radionuclides that have the potential to impact on the safe handling, transport, storage and disposal of radioactive waste generated in the UK. Not all of these 114 radionuclides will exist in every waste stream.

Radioactivity uncertainty

The Inventory quantifies uncertainty in reported average radionuclide activity concentrations by using a double letter band (e.g. BC). The first letter indicates the limit on the upper (+) side and the second letter indicates the limit on the lower (-) side. These limiting values approximate to the 5% and 95% levels on the cumulative distributions of activity (i.e. there is a 5% probability of the specific activity being less than the lower limit, and a 95% probability of the activity being less than the upper limit)[9]. The uncertainty bands are shown in Table A2. Upper and lower estimates for activity are derived by using these factors with the reported average activity concentrations.

Table A2 Radionuclide specific activity uncertainty bands

Band (Upper & Lower)	Uncertainty factor
A	1.5
B	3
C	10
D	100

[8] A metastable state is a higher energy state. Some radionuclides can exist in more than one energy state, with different radioactive properties.

[9] With only four uncertainty bands available, the bands reported are those that give limiting values on the cumulative distribution that are no greater than the 5% level and no less than the 95% level.

GLOSSARY

	<	Less than.
A ▸	**ADAP**	Aqueous Discharge Abatement Plant
	ADU	Ammonium Diuranate.
	AETP	Active Effluent Treatment Plant.
	AEWTP	Active Effluent Waste Treatment Plant.
	AGR	Advanced Gas-cooled Reactor.
	AW500	A proprietary zeolite used in ion exchange processes.
	AWE	AWE develops nuclear warheads for the UK's deterrent at Aldermaston and Burghfield in Berkshire.
B ▸	**BAESM**	BAE Systems Marine Ltd.
	BCD	Burst Cartridge (Can) Detection.
	Becquerel	The standard international unit of measurement of radioactivity – corresponding to one disintegration per second. Its symbol is Bq (see also TBq).
	BEIS	The Department for Business, Energy & Industrial Strategy is a ministerial department that brings together responsibilities for business, industrial strategy, science, innovation, energy, and climate change.
	BEP	Box Encapsulation Plant (at Sellafield).
	BEP0	British Experimental Pile 0. Air-cooled graphite-moderated pile (at Harwell; shut down in 1968).
	Beta/gamma activity	Activity associated with the emission of beta particles and/or gamma radiation.
	BPS	Berkeley Power Station.
	BTC	British Technology Centre (at Sellafield). Now known as National Nuclear Laboratory, Central Laboratory.
C ▸	**C&M**	Care and Maintenance.
	Capping material	Cement or other substance forming inactive cover over conditioned waste in a container.
	CCP	Cartridge Cooling Pond.
	CEGB	Central Electricity Generating Board. A body previously responsible for electricity generation in England and Wales.
	CHILW	Contact Handled Intermediate Level Waste.
	Clifton Marsh	Landfill site (near Preston).
	Conditioned volume	The volume of waste after conditioning, consisting of the waste material and encapsulating matrix.
	Conditioned waste	Radioactive waste that has undergone *conditioning*.
	Conditioning	The process used to prepare waste for long-term storage and/or disposal by converting it into a solid and stable form. The conditioning material may be cement, glass or polymer.
	Crud	Any deposits of impurity or corrosion product.
	CVCS	Chemical Volume and Control System (PWR station).
	CXPP	Chapelcross Process Plant.
D ▸	**DCP**	Dounreay Cementation Plant.
	Decommissioning waste	Waste arising after shutdown of a facility associated with the use or handling of radioactive materials. It can consist of plant or equipment, building debris or material from the clean-up of surrounding ground.
	Depleted uranium	Uranium where the uranium 235 isotope content is below the naturally occurring 0.72% by mass.
	DFR	Dounreay Fast Reactor (shut down in 1977).

	DIDO	Heavy-water cooled and moderated materials testing reactor (at Harwell; shut down in 1990).
	Disposal	The emplacement of waste in a suitable facility without intent to retrieve it.
	DMTR	Dounreay Materials Test Reactor.
	Dragon	Experimental high temperature reactor (at Winfrith; shut down in 1976).
E ▸	**EARP**	Enhanced Actinide Removal Plant (at Sellafield).
	Enriched uranium	Uranium where the U235 isotope content is above the naturally occurring 0.72% by mass.
	Enrichment	The process of increasing the abundance of fissionable atoms in natural uranium.
F ▸	**FED**	Fuel Element Debris.
	FGMSP	First Generation Magnox Storage Pond (at Sellafield).
	Fission	Spontaneous or induced fragmentation of heavy atoms into two (occasionally three) lighter atoms, accompanied by the release of neutrons and radiation.
	Fission products	Atoms, often radioactive, resulting from nuclear fission.
	Flatrol	Type of railway wagon. It is used for transporting fuel flasks.
	Floc	A product of flocculation, a process of coagulation by the use of reagents.
	Fuel cladding	The metal casing around the fuel.
	Fuel stringer	A string of fuel element assemblies for an AGR.
G ▸	**GE Healthcare Ltd**	A company that provides products and services for use in healthcare and life science research. This includes radioisotopes for medical and research users.
	GDF	Geological Disposal Facility. Deep underground facility for disposal of higher activity waste.
	GLEEP	Graphite Low Energy Experimental Pile (at Harwell; shut down in 1990).
H ▸	**HA**	High Activity.
	HAL	Highly Active Liquor.
	Hex	Uranium Hexafluoride.
	HLW	High Level Waste.
	HMNB	Her Majesty's Naval Base.
	HVVLLW	High Volume Very Low Level Waste.
I ▸	**ILW**	Intermediate Level Waste.
	IFP	Insoluble fission products.
J ▸	**JET**	Joint European Torus - the internationally funded fusion project sited at Culham.
L ▸	**LA**	Low Active.
	LA-LLW	Low Activity Low Level Waste.
	LETP	Liquid Effluent Treatment Plant.
	LLLETP	Low Level Liquid Effluent Treatment Plant.
	LLRF	Low Level Refuelling Facility.
	LLW	Low Level Waste.
	LLWR	Low Level Waste Repository. The LLWR in West Cumbria has operated as a national disposal facility for LLW since 1959.
	LSA	Low Specific Activity.
	LWR	Light Water Reactor.
M ▸	**m^3**	Cubic metres – a measure of volume.
	MA	Medium Active.
	MAC	Miscellaneous Activated Component.
	Magnox	An alloy of magnesium used for fuel element cladding in natural uranium fuelled gas-cooled power reactors, and a generic name for this type of reactor.
	MBGWS	Miscellaneous Beta Gamma Waste Store (at Sellafield).

	MCI	Miscellaneous Contaminated Items.
	MEB	Multi-Element Bottle. Container used to hold irradiated LWR fuel in cooling ponds.
	MEP	Magnox Encapsulation Plant (at Sellafield).
	MMMF	Man-Made Mineral Fibre.
	MOD	Ministry of Defence.
	MODIX	Multi-stage Oxidative Decontamination with Ion-Exchange. A process used to clean the pressure vessels and primary circuit pipework of nuclear submarines.
	MOX	Mixed Oxide. Refers to nuclear fuel consisting of uranium oxide and plutonium oxide for use in reactors.
	MTR	Materials Testing Reactor.
N ▸	**NDA**	Nuclear Decommissioning Authority. A non-departmental public body responsible for overseeing decommissioning and cleanup of 17 of the UK's civil public sector nuclear sites.
	NDS	Commercial disposal service, sometimes referred to as the National Disposal Service.
	NE	Not estimated.
	Nimonic	An alloy of the elements nickel, chromium and other minor constituents.
	NNL	National Nuclear Laboratory Limited. A Government owned science and technology services company.
	NRTE	Naval Reactor Test Establishment (at Vulcan, Dounreay).
	Nuclear fuel	Fuel used in a nuclear reactor. Most fuel is made of uranium metal or oxide, and produces heat when the uranium atoms split into smaller fragments.
O ▸	**Operational waste**	Wastes arising from the day-to-day operations of a facility or site.
P ▸	**Packaged volume**	The volume of waste after packaging, consisting of the waste material, any encapsulating matrix, any capping grout and ullage, and the container.
	Packaged waste	Radioactive waste that has undergone packaging.
	Packaging	The loading of waste into a container for long-term storage and/or disposal.
	PCD	Primary Circuit Decontamination.
	PCM	Plutonium Contaminated Material.
	PFR	Prototype Fast Reactor (at Dounreay; shut down in 1994).
	PIE	Post Irradiation Examination, of fuel elements etc.
	PLUTO	Heavy-water cooled and moderated materials testing reactor (at Harwell; shut down in 1990).
	Plutonium	A radioactive element created in nuclear reactors. It can be separated from spent nuclear fuel by reprocessing. Plutonium is used as a nuclear fuel, in nuclear weapons and as a power source.
	POCO	Post Operational Clean Out. Activity after final shutdown that prepares a plant for decommissioning.
	Pond furniture	Various storage racks, skips, frames, containers and MEBs used for storing irradiated fuel in cooling ponds.
	Pu	Plutonium.
	PWR	Pressurised Water Reactor.
	PWTP	Pond Water Treatment Plant (at reactor sites).
R ▸	**Radioactivity**	A property possessed by some atoms that split spontaneously, with release of energy through emission of a sub-atomic particle and/or radiation.

	Raffinate	A solution resulting from a solvent extraction process. The term is applied to the aqueous solution of fission products remaining after the extraction of uranium and plutonium in spent fuel reprocessing.
	Reprocessing	The chemical extraction of reusable uranium and plutonium from waste materials in spent nuclear fuel.
	RHILW	Remote Handled Intermediate Level Waste.
	RRF	Residue Recovery Facility (at Capenhurst).
	RRSL	Rolls-Royce Submarines Ltd.
	RV	Resin Vault (at Trawsfynydd).
S ▸	**SDP**	Sodium Disposal Plant (at Dounreay).
	SDP	Submarine Dismantling Project.
	SEP	Silo Emptying Plant (at Sellafield).
	SETP	Segregated Effluent Treatment Plant (at Sellafield).
	SGHWR	Steam Generating Heavy Water Reactor (at Winfrith site; shut down in 1990).
	SIXEP	Site Ion Exchange Plant (at Sellafield).
	SMP	Sellafield MOX Plant.
	SPP	Sludge Packaging Plant (at Sellafield).
	Storage	The emplacement of waste in a suitable facility with the intent to retrieve it at a later date.
T ▸	**TBq**	Terabecquerel (equal to 1,000,000,000,000 Becquerels).
	te	Tonnes.
	tHM	Tonnes of heavy metal. A unit of mass used to quantify uranium, plutonium and thorium including mixtures of these elements.
	Thorp	Thermal Oxide Reprocessing Plant (at Sellafield).
	THTR	Thorium High Temperature Reactor.
	Treatment	A process that changes the state or form of radioactive waste to facilitate its future management.
	Tritiated	Containing tritium.
	Tritium	An isotope of hydrogen (H-3) having a radioactive half-life of about 12 years.
	tU	Tonnes of Uranium – a measure of mass.
U ▸	**UCP**	Urenco Chemical Plants.
	Ullage	The space remaining within a container above the conditioned waste matrix and any capping material.
	United Kingdom Atomic Energy Authority	A public body that manages the UK fusion research programme and operates the Joint European Torus (JET).
	Uranium	A radioactive element that occurs in nature. Uranium is used for nuclear fuel and in nuclear weapons.
V ▸	**Vitrification**	The process of converting materials into a glass or glass-like form. Vitrification is the process used to convert liquid HLW into a borosilicate glass.
	VLLW	Very Low Level Waste.
	Vulcan	The Naval Reactor Test Establishment (NRTE), located adjacent to Dounreay on the north coast of Scotland.
W ▸	**WAGR**	Windscale Advanced Gas-cooled Reactor (at Sellafield site; shut down in 1981).
	WAMAC	Waste Monitoring and Compaction facility (at Sellafield).
	Waste package	A container and its content of conditioned radioactive waste.
	WEP	Wastes Encapsulation Plant (at Sellafield).
	WRAT	Waste Requiring Additional Treatment.
	WTC	Waste Treatment Complex (at Sellafield).