LLW Repository Ltd | Nuclear Decommissioning Authority

National Waste Programme

October 2016 Waste Metric Dashboard

Period 7 : 2nd October to 29th October FY 16/17

UK Waste Diversion

The National Waste Programme aims to communicate progress in the implementation of the Waste Hierarchy and the Nuclear Industry Strategy for Low Level Waste Management across the UK. This dashboard shows key metrics that demonstrate the successful diversion of waste away from direct disposal and the optimal use of key national assets, such as LLWR and waste treatment facilities on sites around the UK, typically based on delivery of Joint Waste Management Plans (JWMPs). The objective is to encourage transparency and communicate progress to all stakeholders.

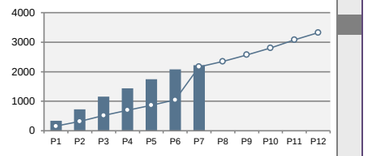
NDA Site Summary YTD

These graphs are a summary of the cumulative progress to date against the combined JWMP targets **. These number do not capture VLLW disposed of on site.

Metallic Treatment:

	Yearly Target	Actual YTD
Sellafield Ltd	2365	1611
Magnox Ltd	948	608
LLWR Ltd	7	1
Total:	3320	2220

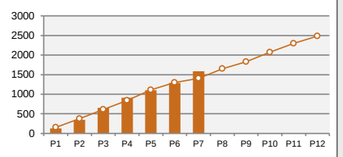
490 te via framework



Combustible Treatment:

	Yearly Target	Actual YTD
Sellafield Ltd	1100	573
Magnox Ltd	1318	994
LLWR Ltd	64	20
Total:	2482	1587

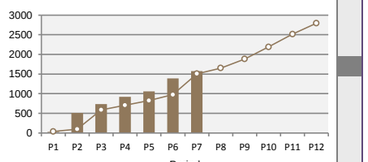
1448 m^3 via framework



VLLW Disposal:

	Yearly Target	Actual YTD
Sellafield Ltd [1]	800	100
Magnox Ltd	2085	1471
LLWR Ltd	30	0
Total:	2915	1571

899 m^3 via framework



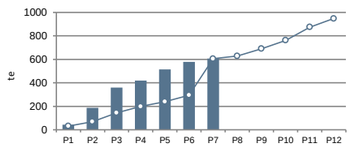
Magnox Ltd

2 3 4 5 6 7 8 9 10 11 12 13

These graphs show the cumulative actual waste diverted by Magnox Ltd against their JWMP targets in the Year to Date (YTD).

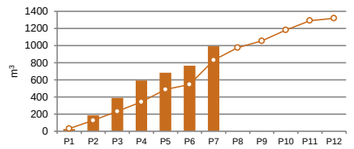
Metallic Treatment:

	Yearly Target	Actual YTD
Onsite treatment	142	137
Via framework	113	45
Out of Scope	693	426
Total:	948	608



Combustible Treatment:

	Yearly Target	Actual YTD
Onsite treatment	0	0
Via framework	1199	875
Out of Scope	119	119
Total:	1318	994



VLLW Disposal:

	Yearly Target	Actual YTD
Onsite disposal	0	0
Via framework	1416	799
Out of Scope	669	673
Total :	2085	1471

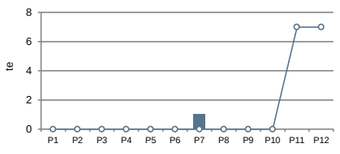
LLWR Ltd

15

These graphs show the cumulative actual waste diverted by Low Level Waste Repository Ltd against their JWMP targets in the YTD.

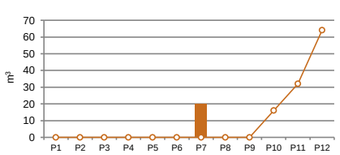
Metallic Treatment:

	Yearly Target	Actual YTD
Onsite	0	0
Via framework	7	0
Out of Scope	0	1
Total:	7	1



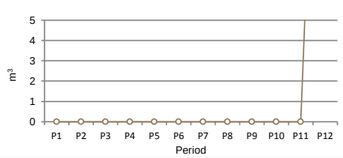
Combustible Treatment:

	Yearly Target	Actual YTD
Onsite	0	0
Via framework	64	0
Out of Scope	0	20
Total:	64	20



VLLW Disposal:

	Yearly Target	Actual YTD
Onsite	0	0
Via framework	30	0
Out of Scope	0	0
Total:	30	0



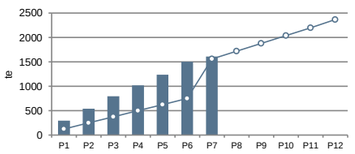
Sellafield Ltd

1

These graphs show the cumulative actual waste diverted by Sellafield Ltd against their JWMP targets in the YTD.

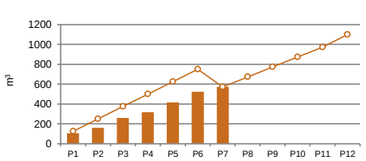
Metallic Treatment:

	Yearly Target	Actual YTD
Onsite treatment	1686	1165
Via framework	679	445
Out of Scope	0	0
Total:	2365	1611



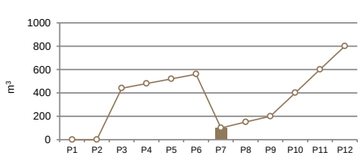
Combustible Treatment:

	Yearly Target	Actual YTD
Onsite treatment	0	0
Via framework	1100	573
Out of Scope	0	0
Total:	1100	573



VLLW Disposal:

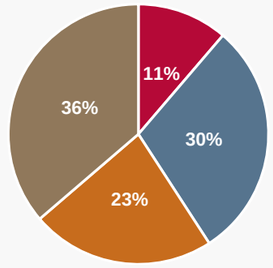
	Yearly Target	Actual YTD
Onsite disposal	0	6859
Via framework	800	100
Out of Scope	0	0
Total :	800	100



[1] Actuals/Target YTD only applies to VLLW via the framework

Key: Cumulative Actual Waste diverted — Target / Forecast

Diversion and Disposal Totals YTD based on Raw Waste (****)



M	2232	te
C	1726	m^3
V	2761	m^3
L	850	m^3

80%	from NDA Sites (excluding DSRL)
20%	from Non-NDA Sites

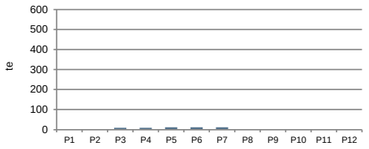
Non-NDA Site Summary YTD

16 17 18 19 20 21 22 23

These graphs are a summary of the cumulative diversions to date from Non NDA sites.

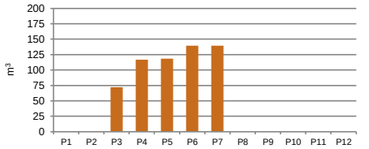
Metallic Treatment:

	Yearly Forecast	Actual YTD
Onsite treatment	N/A	0
Via framework	N/A	0
Out of Scope	N/A	12
Total:	N/A	12



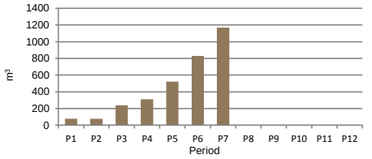
Combustible Treatment:

	Yearly Forecast	Actual YTD
Onsite treatment	N/A	0
Via framework ***	N/A	139
Out of Scope	N/A	1
Total:	N/A	140



VLLW Disposal:

	Yearly Forecast	Actual YTD
Onsite disposal	N/A	0
Via framework	N/A	1146
Out of Scope	N/A	22
Total[1] :	N/A	1168



Non-NDA Sites (YTD)*****

This table shows the cumulative actual waste diverted*** by non-NDA sites in the YTD

Non-NDA Site(s)	M (te)	C (m^3)	V (m^3)
Cyclife [1]	0	0	161
AWE Aldermaston	0	1	473
EDF Energy	0	0	0
Urenco UK	0	0	175
Tradebe Inutec Ltd	0	0	75
Capenhurst Nuclear Services	0	64	242
Unitech	0	4	0
Others	12	71	42

The values above are inclusive of material diverted through direct contracts:

0 te Metallic 68 m^3 Combustible 0 m^3 VLLW

Container being loaded for road transport

ILW → LLW Re-Classification

This table shows the actual volume of waste re-classified from ILW to LLW in the YTD.

SLC	Actual Volume Re-Classified YTD (m^3)
Magnox Ltd	9
Sellafield Ltd	
LLWR Ltd	
Dounreay	
Non-NDA estate	
Total	9

(Metric added for FY 16/17)

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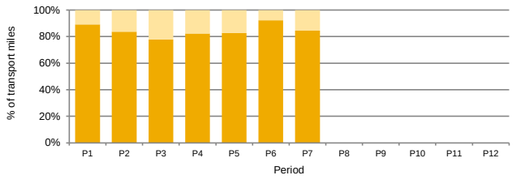
National Waste Programme

Transport and Packaging

Utilisation of Transport Fleet

This graph gives the relative percentage for empty miles (miles transporting empty containers) and utilised miles (miles transporting containers holding waste). A high utilisation % shows transport assets being used effectively.

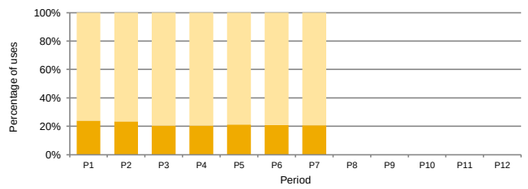


YTD Miles	YTD Average
86,527	85%
15,387	15%

Empty Journeys
Utilised Journeys

Package Re-use

This graph shows, of the total number of containers transported, the percentage of packages that were a re-used container. A high re-use % shows transport assets being used effectively.

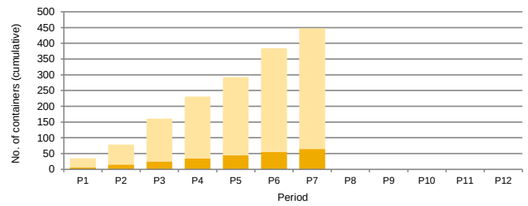


YTD (no.)	YTD Average
41	24%
159	76%

Single / first use container
Re-used container

Road vs. Rail Transports

This graph shows of the total number of containers transported, which were by rail and which were by road. This includes rail shipments from Sellafield to LLWR.



% Container No.s	% Container Miles
14%	2%
86%	98%

Road containers
Rail containers

LLW Disposals and LLWR Vault Capacity

LLW Disposals

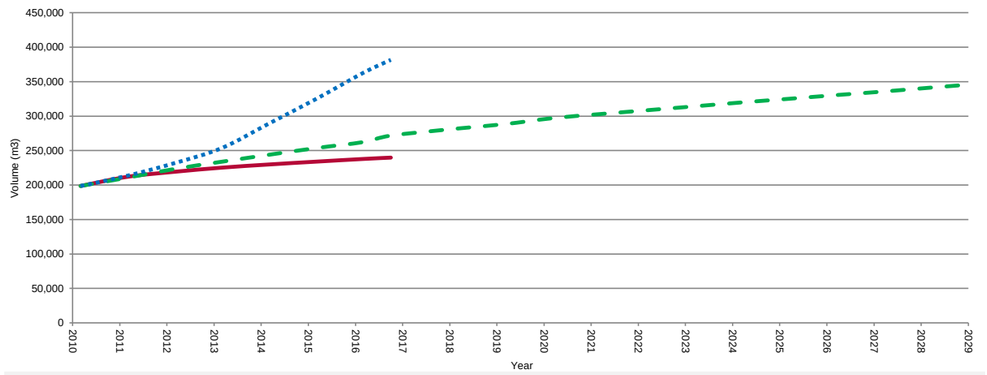
This table gives the number of LLW containers disposed of as LLW in the YTD.

		No. of Containers sent for LLWR Disposal in the YTD												
	Site(s)	Period 1	Period 2	Period 3	Period 4	Period 5	Period 6	Period 7	Period 8	Period 9	Period 10	Period 11	Period 12	Total
NDA	Sellafield Ltd	7	9	10	10	10	10	9						65
NDA	Magnox Ltd	0	1	0	1	0	0	0						2
NDA	LLWR Ltd	0	0	0	0	0	0	0						0
Non-NDA	Cyclife	1	7	0	1	1	0	0						10
Non-NDA	AWE Aldermaston	0	0	0	0	0	0	0						0
Non-NDA	EDF Energy	0	0	0	0	0	0	0						0
Non-NDA	Urenco UK	0	0	0	0	0	0	0						0
Non-NDA	Tradebe Inutec Ltd	1	0	1	1	0	1	0						4
Non-NDA	Capenhurst Nuclear Services	0	0	0	0	0	0	0						0
Non-NDA	Unitech	0	0	0	0	0	0	0						0
Non-NDA	Others	0	0	0	0	2	0	2						4
	TOTAL	9	17	11	13	13	11	11	0	0	0	0	0	85

	No. of Containers sent disposed of at Dounreay in the YTD												
Dounreay Vaults	Period 1	Period 2	Period 3	Period 4	Period 5	Period 6	Period 7	Period 8	Period 9	Period 10	Period 11	Period 12	Total
Dounreay - Main Vault	26	0	0	16	0	0	0						42
Dounreay - Demolition Vault	0	0	0	0	0	0	0						0

Total Impact of Diversions on LLWR Site

This graph compares the actual site capacity used, against the planned capacity according to Life Time Plan (LTP) 08, and the capacity that would have been used if no treatment options were utilised. Actual disposals are based on the number of containers recieved by LLWR per year. To convert between raw volume and container number it has been assumed that one container takes up 22.8m^3 of vault space. For metallic wastes it has been assumed that 10te is contained within a HHISO. This graph starts in April 2010 when the new LLWR waste services contract was introduced. Up to this point 266,180m^3 of waste had been consigned to LLWR for disposal. For the purpose of this graph these values assume no secondary waste is recieved by LLWR from treatment providers.



Total volume saved by diversions:	141,828 m^3

Total no. of equivallent HHISO containers saved by diversion:	6,221

Usage of Waste Routes

Route Status

This table shows the routes available to each of the sites, which have been utilised and which are yet to be utilised. This date is reflective of waste route usage from 2008 to the YTD.

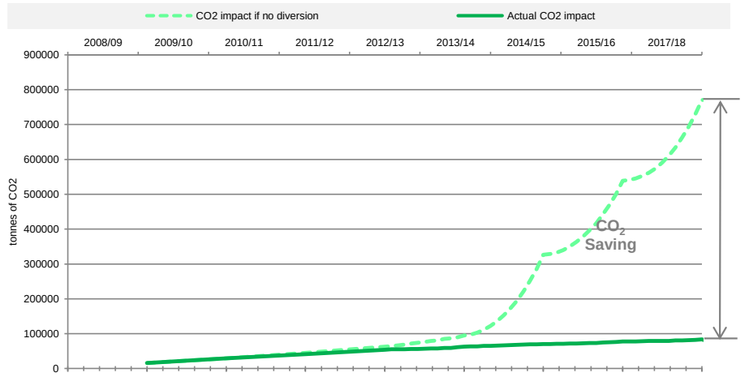
SLC	Site	M	C	V	L
LLWR	LLWR	●	●	●	●
DSRL	Dounreay	●	●	●	●
Sellafield Ltd	Sellafield	●	●	●	●
Magnox Ltd	Berkeley	●	●	●	●
Magnox Ltd	Bradwell	●	●	●	●
Magnox Ltd	Chapelcross	●	●	●	●
Magnox Ltd	Dungeness A	●	●	●	●
Magnox Ltd	Hinkley Point A	●	●	●	●
Magnox Ltd	Hunterston A	●	●	●	●
Magnox Ltd	Oldbury	●	●	●	●
Magnox Ltd	Sizewell A	●	●	●	●
Magnox Ltd	Trawsfynydd	●	●	●	●
Magnox Ltd	Wylfa	●	●	●	●
Magnox Ltd	Harwell	●	●	●	●
Magnox Ltd	Winfrith	●	●	●	●

SLC	Site	M	C	V	L
EDF - Energy	Dungeness B	●	●	●	●
EDF - Energy	Hartlepool	●	●	●	●
EDF - Energy	Heysham 1	●	●	●	●
EDF - Energy	Heysham 2	●	●	●	●
EDF - Energy	Hinkley Point B	●	●	●	●
EDF - Energy	Hunterston B	●	●	●	●
EDF - Energy	Sizewell	●	●	●	●
EDF - Energy	Torness	●	●	●	●
MoD Sites	RRMPOL	●	●	●	●
MoD Sites	HMNB Rosyth	●	●	●	●
MoD Sites	HMNB Devonport	●	●	●	●
MoD Sites	HMNB Clyde	●	●	●	●
MoD Sites	AWE Aldermaston	●	●	●	●
MoD Sites	Barrow	●	●	●	●
MoD Sites	Eskmeals	●	●	●	●
Urenco UK Ltd		●	●	●	●
Capenhurst Nuclear Services (CNS)		●	●	●	●
GE Healthcare Ltd Amersham		●	●	●	●
UKAEA Culham JET Site		●	●	●	●
Medical Research Council		●	●	●	●

Key : ● Route not open ● Route available ● Route in use ✕ Recent status change

Environment

Environmental Impact



Tonnes of CO2 saved from diverting waste for treatment through entire programme:	91%	776,304 te

Dashboard Commentary:

May 2016 changes:
- added ILW to LLW re-catagorisation metric
- Moved Notes to page 2
- Removed Milestones section (these are reported elsewhere)
- Expanded LLW disposals at Dounreay to included the Dounreay demollition vault.

(1) Cyclife is the new name for the Metals Recycling Facility at Lillyhall, which was previously owned by Studsvik

Notes:

* The SL Metallic forecast and YTD total includes 8.10te of metal forecast and consigned through direct contracts
** JWMP targets have been revised in P6 to reflect version 11 submissions
*** Diversion totals from Non NDA include framework and non framework consignments.
**** Metallic Waste (te) to (m3) Conversion: 1.00 te/m3 (assuming 10te per HHISO)
***** for Non NDA sites, "zero" diversion may either reflect no diversion or diversion via direct contracts or self-performance which is not reported to LLWR at this time

Cost Norms

The three graphs below show the cost norms with the actual price per contract for comparision.

Key: Cost Norm Actual Price