LLW Repository Ltd | NDA Nuclear Decommissioning Authority

National Waste Programme

April 2015

Waste Metric Dashboard

Period 1 : 1st April to 25th April FY 15/16

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.

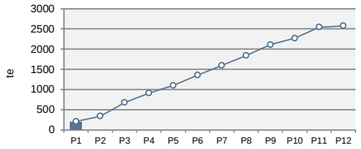
NDA Site Summary YTD

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	1900	136
Magnox Ltd	612	53
LLWR Ltd	11	0
Total:	2523	189

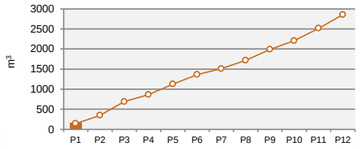
10 te via framework



Combustible Treatment:

	Yearly Target	Actual YTD
Sellafield Ltd	1200	50
Magnox Ltd	1445	115
LLWR Ltd	0	0
Total:	2645	165

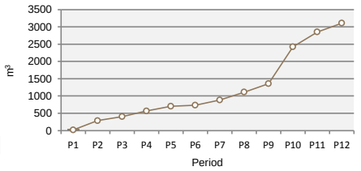
165 m^3 via framework



VLLW Disposal:

	Yearly Target	Actual YTD
Sellafield Ltd [1]	250	0
Magnox Ltd	2096	50
LLWR Ltd	39	0
Total:	2385	50

50 m^3 via framework

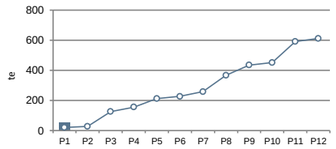


Magnox Ltd

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

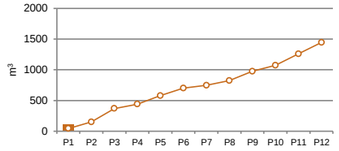
Metallic Treatment:

	Yearly Target	Actual YTD
Onsite treatment	79	32
Via framework	164	0
Out of Scope	390	21
Total:	612	53



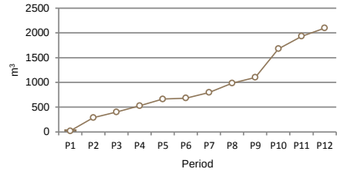
Combustible Treatment:

	Yearly Target	Actual YTD
Onsite treatment	0	0
Via framework	1445	115
Out of Scope	0	0
Total:	1445	115



VLLW Disposal:

	Yearly Target	Actual YTD
Onsite disposal	0	0
Via framework	2096	50
Out of Scope	0	0
Total :	2096	50

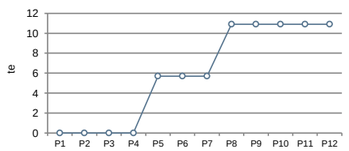


LLWR Ltd

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

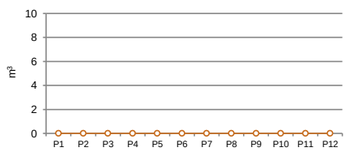
Metallic Treatment:

	Yearly Target	Actual YTD
Onsite	0	0
Via framework	11	0
Out of Scope	0	0
Total:	11	0



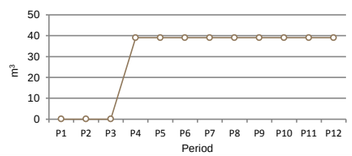
Combustible Treatment:

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



VLLW Disposal:

	Yearly Target	Actual YTD
Onsite	0	0
Via framework	39	0
Out of Scope	0	0
Total:	39	0



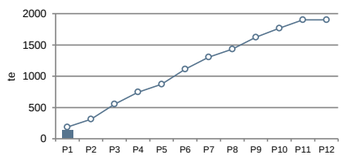
Key: Cumulative Actual Waste diverted — Target / Forecast

Sellafield Ltd

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

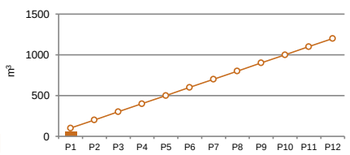
Metallic Treatment:

	Yearly Target	Actual YTD
Onsite treatment	1200	127
Via framework	700	10
Out of Scope	0	0
Total:	1900	136



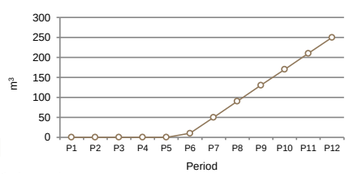
Combustible Treatment:

	Yearly Target	Actual YTD
Onsite treatment	0	0
Via framework	1200	50
Out of Scope	0	0
Total:	1200	50



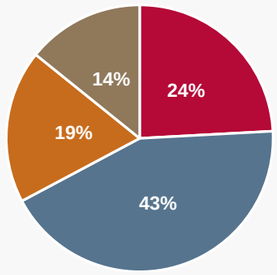
VLLW Disposal:

	Yearly Target	Actual YTD
Onsite disposal	0	425
Via framework	250	0
Out of Scope	0	0
Total[1] :	250	0



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

Diversion and Disposal Totals YTD based on *Raw** Waste Volume



M	383	m^3
C	165	m^3
V	126	m^3
L	215	m^3

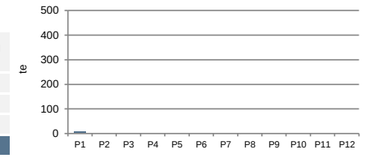
86%	from NDA Sites
14%	from Non-NDA Sites

Non-NDA Site Summary YTD

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

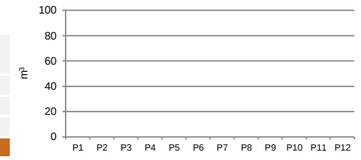
Metallic Treatment:

	Yearly Forecast	Actual YTD
Onsite treatment	N/A	0
Via framework	N/A	7
Out of Scope	N/A	0
Total:	N/A	7



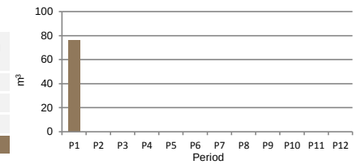
Combustible Treatment:

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



VLLW Disposal:

	Yearly Forecast	Actual YTD
Onsite disposal	N/A	0
Via framework	N/A	76
Out of Scope	N/A	0
Total:	N/A	76



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)
Studsvik	0	0	8
AWE Aldermaston	0	0	20
EDF Energy	0	0	0
Urenco UK	0	0	48
Tradebe Inutec Ltd	0	0	0
Capenhurst Nuclear Services	7	0	0
Unitech	0	0	0
Others	0	0	0

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

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

LLWR Marine Holding Tank Sediment

Notes

*Metallic waste has been converted to raw volume assuming 10te per Half Height Isofreight container (HHISO) and a HHISO volume of 19.5m^3. The same volume has been used to convert LLWR container numbers to raw volumes.

** Diversion totals from Non NDA include framework and non framework consignments.

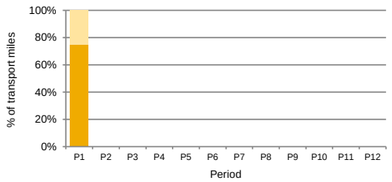
LLW Repository Ltd | NDA Nuclear Decommissioning Authority

National Waste Programme

Transport and Packaging

Utilisation of Transport Fleet

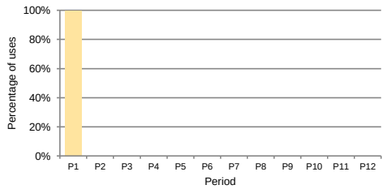
This graph gives the relative percentage for empty miles (miles transporting empty containers) and utilised miles (miles transporting containers holding waste). A high utilisation % shows transport assets being used effectively.



	YTD Miles	YTD Average
Empty Journeys	7,120	75%
Utilised Journeys	2,401	25%

Package Re-use

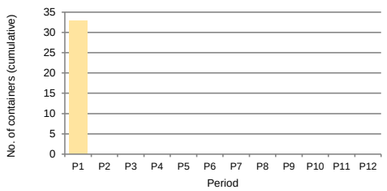
This graph shows, of the total number of containers transported, the percentage of packages that were a re-used container. A high re-use % shows transport assets being used effectively.



	YTD (no.)	YTD Average
Single / first use container	0	0%
Re-used container	33	100%

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.

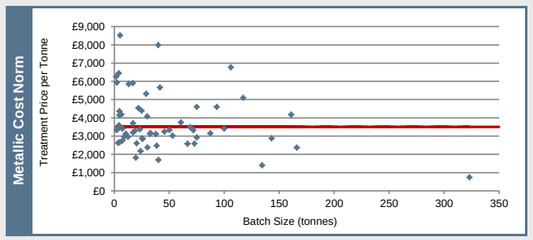


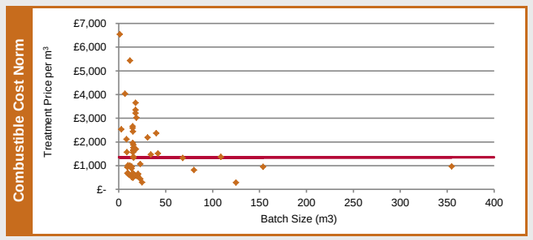
	% container numbers	% container miles
Road containers	0%	0%
Rail containers	100%	100%

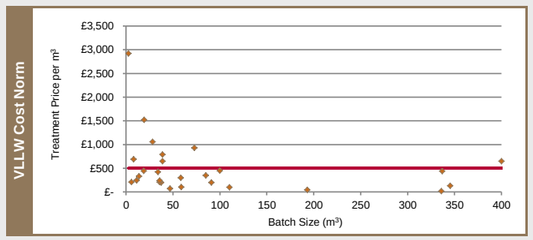
Cost Norms

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

Key: Cost Norm | Actual Price







LLW Disposals and LLWR Site Capacity

LLW Disposals

This table gives the number of LLW containers sent to LLWR for 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
		No. of Containers sent for LLWR Disposal in the YTD												
NDA	Sellafield Ltd	5												5
NDA	Magnox Ltd	4												4
NDA	LLWR Ltd	0												0
Non-NDA	Studsvik	0												0
Non-NDA	AWE Aldermaston	0												0
Non-NDA	EDF Energy	0												0
Non-NDA	Urenco UK	0												0
Non-NDA	Tradebe Inutec Ltd	0												0
Non-NDA	Capenhurst Nuclear Services	0												0
Non-NDA	Unitech	0												0
	Others	2												2
	TOTAL	11	0	0	0	0	0	0	0	0	0	0	0	11

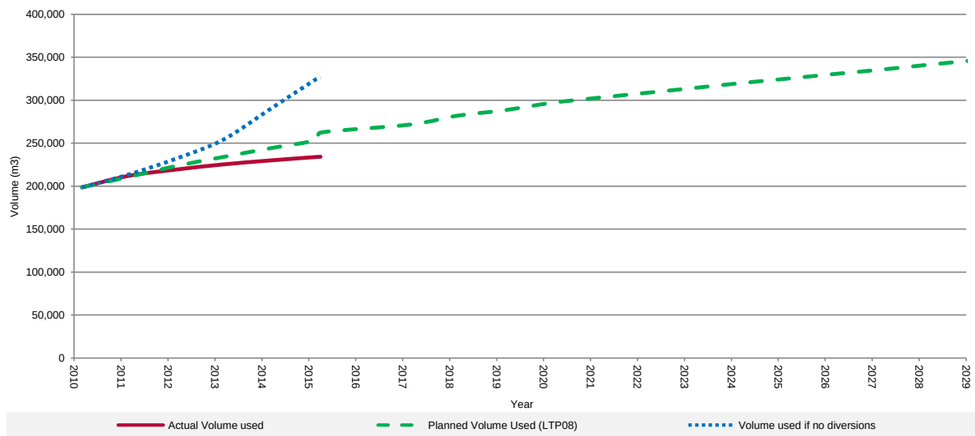
No. of containers disposed of by DSRL in the YTD

Period	No.
Period 1	0
Period 2	0
Period 3	0
Period 4	0
Period 5	0
Period 6	0
Period 7	0
Period 8	0
Period 9	0
Period 10	0
Period 11	0
Period 12	0
TOTAL	0

*Containers are currently stored at DSRL

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 received by LLWR per year. To convert between raw volume and container number it has been assumed that one container can container a raw waste volume of 19.5m^3. 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 received by LLWR from treatment providers.



Total volume saved by diversions:	92,276 m^3

Total no. of equivalent HHISO (19.5m^3) containers saved by diversion:	4,732

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 for LLWR framework suppliers. This does not reflect any consignments made via direct contracts.

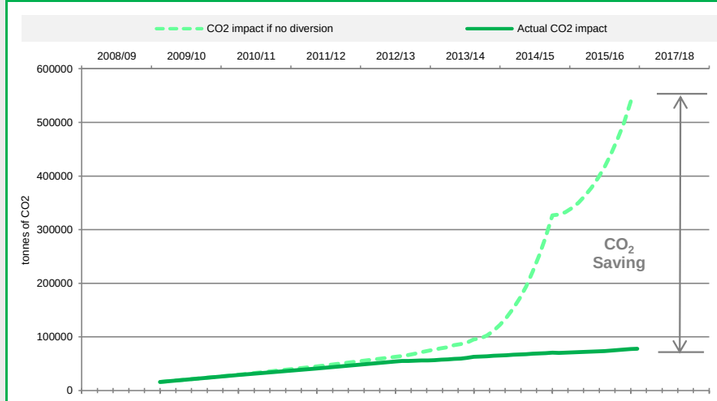
SLC	Site	M	C	V	L
LLWR	LLWR	●	●	●	●
DSRL	Dounreay	●	●	●	●
Sellafield Ltd	Sellafield	●	●	●	●
Magnox Ltd	Berkeley	●	●	●	●
	Bradwell	●	●	●	●
	Chapelcross	●	●	●	●
	Dungeness A	●	●	●	●
	Hinkley Point A	●	●	●	●
	Hunterston A	●	●	●	●
	Oldbury	●	●	●	●
	Sizewell A	●	●	●	●
	Trawsfynydd	●	●	●	●
	Wylfa	●	●	●	●
	Harwell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

SLC	Site	M	C	V	L
EDF-Energy	Dungeness B	●	●	●	●
	Hartlepool	●	●	●	●
	Heysham 1	●	●	●	●
	Heysham 2	●	●	●	●
	Hinkley Point B	●	●	●	●
	Hunterston B	●	●	●	●
	Sizewell	●	●	●	●
	Torness	●	●	●	●
MoD Sites	RRMPOL	●	●	●	●
	Rosyth	●	●	●	●
	HMNB Devonport	●	●	●	●
	HMNB Clyde	●	●	●	●
	AWE	●	●	●	●
	Barrow	●	●	●	●
	Eskmeals	●	●	●	●
Urenco UK Ltd - Capenhurst		●	●	●	●
Capenhurst Nuclear Services		●	●	●	●
GE Healthcare Ltd		●	●	●	●
UKAEA Culham JET		●	●	●	●
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 program:	86%	462,905 te

Dashboard Commentary:

Commencing the 15/16 FY, the following changes have been made to both the format and content of this dashboard:

- RSRL graphics have been merged with Magnox Ltd in order to reflect the change in Parent Body Organisation for the 12 sites
- New graphic added to summarise Non-NDA waste diversions in addition to that of individual site / organisation contributions
- LLW disposals data and route status graphics have been updated to include non-NDA sites
- New graphic added to provide an overview of Dounreay Site disposals at their recently commissioned LLW facility
- Revised capacity graph to show the estimated total impact of waste diversions on the LLWR Site as opposed to focusing on Vault 9
- Removal of RIDDOR/OSHA and Supply Chain Non-Conformance graphics
- General re-arrangement and update of graphics to accommodate the above changes

National Waste Programme | Key Achievements This Quarter

Quarter 4 Milestones 2014/2015

- ✓ Magnox to review how Project Waste Management Plans (PWMP) are used at sites, identify how to close gaps against best practice and roll out PWMP across sites
- ✓ RSRL to critically review application of the WH on key decommissioning projects during implementation of the Independent Assessment Programme for 2014/15
- SL to work with LLWR to develop a bespoke contract under Lot 7 to further progress the management of legacy oil stocks'
- ✓ LLWR to carry out a feasibility study for a solution to one orphan waste population

Quarter 1 Milestones 2015/2016

- Harwell and Winfrith to define processes for maintaining up to date waste estimates
- Magnox to produce a strategic options assessment for the management of metallic LLW (Metals BAT)
- SL to undertake analysis to establish if there are alternative suitable approaches to manage material through WAMAC, so as to enhance compliance with LLWR WAC requirements and implement findings