

National Waste Programme Quarterly Report

Quarter 1 FY21/22

This report provides a “snapshot in time” of the progress being made within the National Waste Programme (NWP) community to achieve the strategic objectives of the programme. The report provides updates from NDA-estate waste producers, including a look-back, focus areas for the next quarter; a status update table on projects, events and significant deadlines for the coming quarter ; and updates / changes to the threats / opportunities register.

For more information, please contact nwp@llwrsite.com



1. Overview – National Programme

1.1. Quarterly Update

- Procurement was completed for the Integrated Waste Management Programme (IWMP) Waste Culture Metrics, KPIs and Incentivisation project via the NWP project support call-off contract and a kick-off meeting was held with the contractor.
- Case studies on Waste Culture, and Non-Radioactive Waste Management were submitted to the IWMP Programme Management Office to support the end of financial year report.
- The updated Container Signposting Resource and Training Database were shared with stakeholders via the Hub.
- The second Industry Waste Mis-Consignment Lexicon project stakeholder workshop was held, and progress was made on developing a scaled and nuanced definition.
- A positive and constructive regulatory engagement session was held with EA and ONR to share work-in-progress on the industry definition of mis-consignment project.
- A project scoping session was held with NDA IWM Strategy and NDA Environmental teams to develop an approach for the IWMP Conventional Waste Management project.
- The programme of work for FY2021/22 for the Problematic Waste Integrated Project Team (IPT) was approved by the IPT Board.
- The first Environmental Safety Case (ESC) Programme Customer Working Group – hosted by the NWP Office – was held; this will be a useful working arrangement for engaging with customers on the ESC Programme moving forwards.

1.2. Peer Reviews & Assists

- A meeting was held with DSRL to discuss the scope of a Peer Learning Event to support future use of the combustible waste route at the Dounreay site.

1.3. Key Meetings

- The NWP Delivery Overview Group (DOG) meeting was held with over 30 attendees from 15 organisations: including a celebration of the 10-year anniversary of the formation of the NWP Office.
- The NWP Office represented LLW Repository Ltd at a workshop on the NDA Container Strategy Strand B (Management Body) workstream.
- The NWP, alongside colleagues from WMS, represented LLW Repository Ltd at a workshop on the NDA Packages Strategy Strand A (Catalogue) workstream.
- The NWP Office represented LLW Repository Ltd at a workshop on the NDA Container Strategy Strand B (Management Body) workstream.
- The Head of NWP represented the UK at an International Atomic Energy Agency Working Group meeting on cost estimating for Naturally Occurring Radioactive Materials (NORM) management, sharing the UK experiences of radioactive waste management cost estimating.

1.4. Focus areas for next Quarter

- Initiate stakeholder engagement across a range of NWP projects such as the IWMPG Characterisation project and the National Strategic BAT Reviews.
- Conclude procurement for the IWMP Cost Norms project and hold kick-off.

2. Waste Management Services

2.1. Quarterly Update

- A Supplier Engagement Session was held to support the re-competition of the Thermal and Conditioning framework, attended by over 40 personnel from 20 organisations.
- A meeting was held with LLWR's Waste Delivery team to develop the scope required to access a supercompaction and disposal service for drums recharacterised as Low Level Waste (LLW) through the Plutonium Contaminated Material (PCM) re-characterisation project. The service will incorporate the provision of packaging and technical support.
- A meeting was held with Sellafield regarding the Calder Heat Exchangers project. Updates were provided on the current phases of work ongoing, specifically Study 2 which includes waste processing and disposal of heat exchangers.
- A contract for the treatment and disposal of up to 120 Multi Element Bottles (MEBs) from Sellafield over the next 3 years has been awarded to Cyclife, start-up meetings were held to discuss the project in further detail.
- Progress is being made on the Harwell Offsite Discharge Pipework (ODP) project; this will be a high priority review for both organisations.
- A meeting was held with DSRL to discuss the Stores Decant project and the repacking of containers with high voidage issues.
- An engagement meeting with LLWR and Magnox was held to discuss the Dungeness Boiler project and detail the plans for characterisation of the boilers. Engagement milestones were established with further discussions taking place in July.

- A meeting was held with HMNB Clyde to discuss their legacy tanks project. MOD have now indicated that the project can proceed. LLWR will establish a revised service schedule based on the new start date.
- The tender evaluation process is underway to select a Contractor from LLWR's metals framework for Mixed Metallic Waste from Sellafield. Between 700 and 900te of containerised metallic waste generated will be consigned through this service.
- Following several weeks of planning and management between LLW Repository Ltd, Cyclife UK and Sellafield, the first pair of pond skips, in over 12 months, was consigned from Sellafield to Cyclife. The opening of this route allows Sellafield to continue high hazard risk reduction on the site.
- A workshop was held with Sellafield and the supply chain for the Metallic Waste Treatment Services Framework to discuss supply chain capability and services in relation to higher activity items originating from the legacy ponds and silos.

2.2. Focus areas for next Quarter

- Prepare and execute the Characterisation Customer-Supplier Forum.
- Execute the first consignments of the Harwell Offsite Discharge Pipeline.

3. Overview – Sellafield Ltd

3.1. Quarterly Update

Q1 performance has been strong with a focus on meeting the site demand for operational wastes as well as bringing online the Skip Size Reduction Facility and streamlining the Chemical disposal process.

Good progress has been made on a range of transformation activities, including;

- Issue 2 of the CLESA Environmental Safety Case has been signed off and approved.
- A review has been undertaken as part of the waste profession plan of the coverage of key waste roles within Sellafield. These include Plant Solid Waste Coordinator, Waste Advisor, Site Clearance Coordinator and Skip Controller.
- Alternative treatment for the stripping and recycling of electrical cable has been agreed with Sellafield service provider.
- Multi Element Bottle contract has been placed with Cyclife and the first bottles will be consigned at the end of May.
- Re-tendering of Very Low Level Waste (VLLW) (hazardous and non-hazardous) contracts successfully completed.
- Initial engagement with LLWR on provision of inventory data to support work they are undertaking on optimised use of the LLWR site at the request of NDA.
- Pile Fuel Storage Pond skips disposal route restarted.
- Streamlining of packaging process for chemicals for disposal from 30 days to 1 day.

3.2. Focus areas for next Quarter

- Supporting National Waste Programme project on the Mis-Consignment Lexicon.
- Bring the Skip Size Reduction facility into active commissioning and operations.
- Continued progress on Decommissioning Waste Services Partnership to support High Hazard and Risk Reduction.
- Continued reduction of redundant chemical numbers on the Sellafield site through off site treatment.
- Resolution of a treatment method for the C-Type flasks and higher activity metallic waste route information gathering.
- Approval for the revised Waste Programme Mandate, Benefits Map and planning.
- Continued progress of the waste people plan, focusing on workload planning.

4. Overview – Magnox Ltd

4.1. Quarterly Update

At the end of Q1 Magnox has shipped 3te metallic waste, 21m³ of combustible waste, 1528m³ of VLLW and has consigned one container for disposal at LLWR.

Progress has been made across a number of projects:

- Actively involved in a number of IWMP projects that have begun including Waste (Culture) Comms project; waste metrics project as well as preparing to launch the projects Magnox is leading on across the programme including Career Pathways and Virtual Mobile Waste teams.
- Review of synergies between IWMP and the Magnox Waste Management Improvement Programme (WMIP) via a comparison of programme blueprints; consolidation of these work areas is progressing within Magnox.
- Participation with LLWR's customer working group.
- Harwell ODP pipeline project - BAT approved and preparations almost complete for first consignment.
- Collaboration with LLWR regarding trial of the new enquiry process for characterisation ahead of the transition to Waste Characterisation Assurance Support Services (WCASS) III.
- New problematic waste register produced which includes legacy waste.
- BAT workshops held for Active Effluent Treatment Plant (AETP) sludge and sand/gravel streams – part of the phase 2 waste streams for the Dungeness borderline wet waste project.

4.2. Focus areas for next Quarter

- Begin shipments of ODP pipeline from Harwell for Ultra High Pressure (UHP) cleaning.
- Complete BAT assessments for Dungeness borderline wet waste project – phase 2 waste streams.
- Hold first characterisation for non-practitioners training session and first cohort to begin LLW fingerprint management workbook training.
- Confirmation of scope of work to be undertaken in collaboration with LLWR on LAW management for Rolling Programme of Decommissioning (RPD) and get work underway.
- Successfully launch the Magnox-led IWMP projects.
- Transition to WCASS III and new operating model.

5. Overview – Dounreay Site Restoration Ltd

5.1. Quarterly Update

Operations:

- Decommissioning activities were mostly limited to clean wastes and compliance related LLW / Out of Scope of Regulation (OoSoR) justified under Customer Service Agreements as the Fingerprint validation and underpinning exercise continues.
- Some LLW drums have been consigned to Waste Receipt Assay Characterisation and Supercompaction (WRACS) under new approved Fingerprints, but no assay or compaction has been carried out as assay systems were awaiting calibration.
- Non-Containerised waste diversion work resumed early May and completed on three large bulk items which now await completion of characterisation before moving to disposal phase work.
- Oils and Solvents WCIs being prepared for submission to LLWR.

Compliance:

- The number of Fingerprints implemented for use by plants / projects has increased to 13 at end of Q1 – additional resource has been sourced to accelerate delivery of the programme.
- Customer Service Level Agreements continue to permit controlled LLW generation of compliance related LLW and OoSoR wastes for facilities awaiting updated Fingerprints.

5.2. Focus areas for next Quarter

- Resume consignment of compliant LLW for waste processing to include a campaign of Encapsulation Plant / D3100 disposal operations.
- Finalise characterisation of Non-Containerised Waste for off-site diversion via LLWR Framework.
- Complete stored LLW HHISO container voidage Best Practicable Means (BPM) Statements.
- Implement Scope of Work to assess impact of Fingerprint validation and underpinning project on stored legacy wastes.
- Consignment of Oils and Solvents for off-site disposal through LLWR Waste Services Contract.
- Continue review, revision and approval of Dounreay Fingerprints.

6. Overview – LLW Repository Site

6.1. Quarterly Update

- Waste Services Quotation (WSQ) received for new Metallic Service Provider.
- Consignment of batch 43 combustibles to Tradebe.
- WSQ approved for hazardous & non-hazardous VLLW.
- 5 x interim storage FHISO containers consigned to Suez.
- NSG team mobilised to support PCM Drum re-characterisation and commencement of Drum Assay for the PCM re-characterisation project.
- Consignment of Batch 44 Combustibles to Tradebe.
- Consignment of Batch 20 Metals to Augean.
- Waste Enquiry Form (WEN) submitted for Combustible Waste Treatment Service.
- Soil samples dispatched to analytical laboratory (suspected to contain mononitrotoluene).
- Consignment of metals batch 19 to Augean.
- Loading of VLLW batch 002 (material from the Magazines) complete - to be consigned to Suez.
- Preparation of Large Items from Demolition continues.
- Loading of metals batch 21 for consignment to Augean complete - to be consigned to Augean.
- Loading of metals batch 22 for consignment to Augean complete - to be consigned to Augean.
- Loading of combustibles batch 11 for consignment to Tradebe complete - to be consigned to Tradebe.
- LLW delivery strategy documents are being progressed (compliance documentation for the PCM drum re-characterisation programme of work).

6.2. Focus areas for next Quarter

- Finish loading VLLW generated from Drigg Grouting Facility (DGF) and various projects around the site.
- Preparation and loading of batteries, cadmium and Ion Exchange Units into drums for consignment.
- Continue providing support to the Business-as-Usual (BAU) projects as they arise.
- Provide support to the Drum re-characterisation Project – transition to BAU and readiness for consigning re-characterised drums off the LLWR Site for supercompaction.
- Consignment of combustibles batch 11 to Tradebe.
- Consignment of Mag 4 DEMO HHISO 1.
- Consignment of Metals batch 21 to Augean.
- Consignment of metals batch 22 to Augean.
- Consignment of 3 x filter housing units to Augean.
- Load further PCM magazines waste (metal / combustible / VLLW) consignments as they arise.
- Consignment of metallic waste generated as part of the PCM demolition programme.
- Setting up task team for the management of TNT/ unexploded ordinance.

7. Forward Calendar

May 2020						
M	T	W	T	F	S	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28			






07/05/2020 – LLW Practitioners Forum Telecon (T)
14/05/2020 – LLW Practitioners Forum Telecon (T)
18/05/2020 – LLW NWP Monthly Managers Telecon (T)
19/05/2020 – LLW Practitioners Forum Telecon (T)
28/05/2020 – NWP Monthly Report Waste Producer Submission Deadline

June 2020						
M	T	W	T	F	S	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	30				

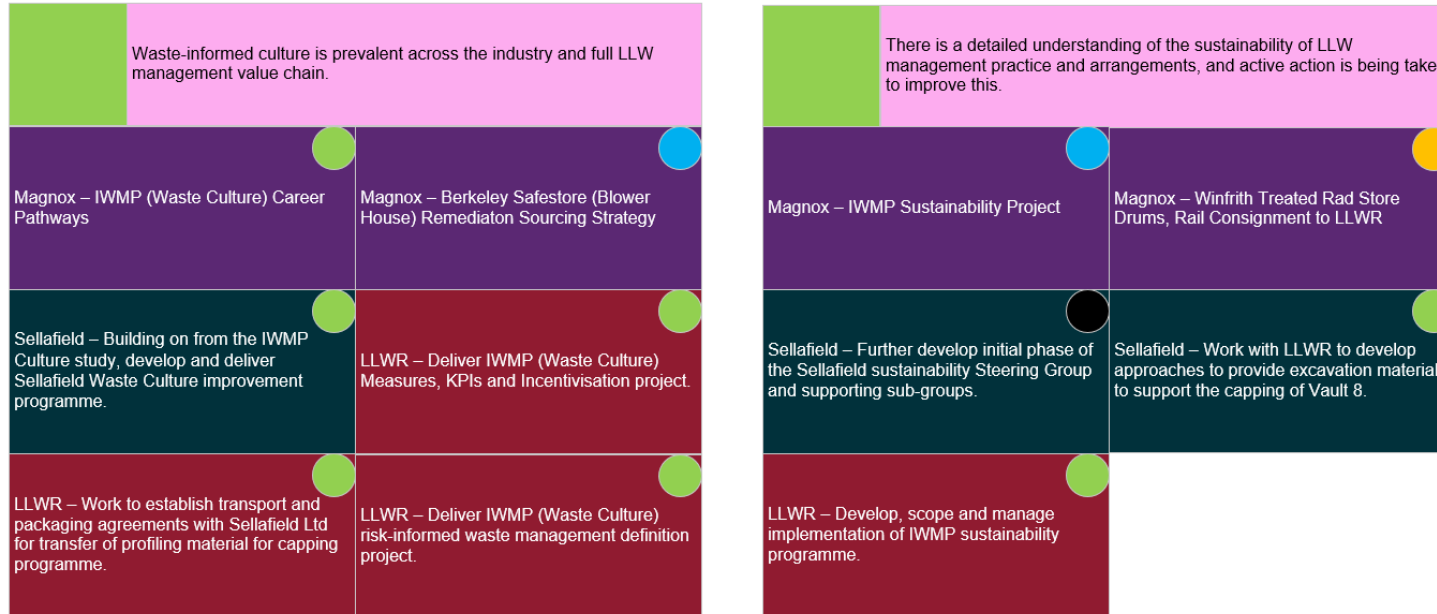
01/06/2020 – LLW NWP Programme Board (T)
03/06/2020 – LLW NWP Regulatory Meeting (T)
15/06/2020 – LLW NWP Monthly Managers Telecon (T)

July 2020						
M	T	W	T	F	S	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

01/07/2020 – NWP Monthly Report Waste Producer Submission Deadline (June Report)
14/07/2020 – LLW NWP Monthly Managers Telecon (T)
29/07/2020 – NWP Monthly Report Waste Producer Submission Deadline (July Report)

KEY					
	Meeting	Project workshop	Peer Review / Peer Assist	Deadline	Customer Forum
	BM=Birmingham	MA=Manchester	WA=Warrington	C=Cumbria	T=Teleconference

8. Performance against priority business changes



Priority Business Change		Sellafield	Magnox	LLWR
Key	Overall Priority Business Change Status	Project not yet commenced	Project has commenced and is behind schedule; but is expected to recover	Project Complete
	Individual Project Status	Project commenced and is on target to deliver on or ahead of schedule	Project has commenced and is behind schedule; but is not expected to recover	

Waste management practice enables agile, efficient and effective waste flow management to support operations, decommissioning and site restoration. Waste management is fully risk-informed, enabling effective management of waste at the LLW / ILW boundary.

Magnox – Site specific decommissioning strategies.	Magnox – Implementation of WCASS III and new operating model	Sellafield – Develop and implement integrated approach for complete rad and non-rad characterisation of excavated wastes.	Sellafield – Implementation of additional capability to support the 25% acceleration of the removal and management of material from high hazard facilities.
Sellafield – Work with LLWR to address the impact diversion is having on the management of material that is not suitable for diversion.	Sellafield – Develop initial site Waste Management Plan (WMP) and site-wide Environment Safety Case (SWESC) in line with the requirements of the Guidance on Requirements for Release from Radioactive (GRR) Substances Regulations.	Sellafield – Work with LLWR to develop HHISO heterogeneity guidance relevant to High Hazard and Risk Reduction.	Sellafield – Support LLWR to develop a characterisation standard.
Sellafield – Complete handover of newly developed chemicals management route to operations.	Sellafield – Undertake further analysis to establish forward approach for managing bulk VLLW arising post filling of existing CLESA capability	Sellafield – Explore and trial alternative containers to enhance the flexibility of approaches for the transfer of material diverted from LLWR disposal.	Sellafield – Develop and implement an approach to enable the incineration of asbestos contaminated material (ACM).
Sellafield – Work with LLWR to develop a case study to assess the feasibility of storing WAGR boxes on the LLWR site.	LLWR – Review of the options for future data tracking logistics systems to meet customer requirements.	LLWR – Development of a Waste Characterisation Standard to support the NDA Good Practice Guide for disposal at the LLW Repository.	LLWR – Develop scope and manage implementation of IWMP Characterisation Programme.
LLWR – Utilisation study for the LLWR Drum storage facility.	LLWR – Re-characterisation of PCM drums for disposal.	LLWR – ESC Development Programme	

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<p>Resourcing (including specialized resource) is resilient across the industry and supports effective waste management. There is a cross-industry understanding of skill sets, needs, projections and opportunities. Work is undertaken to mitigate risks to the waste management sector.</p>	
<p>Magnox – IWMP (Waste Culture) Metrics, Key Performance Indicators and Incentivisation</p>	<p>Magnox – Implementation of Characterisation training packages</p>
<p>Sellafield – Continue to work with potential supply chain partners to understand the benefits of direct engagement to provide decommissioning and waste management support.</p>	<p>Sellafield – Review and revise Waste training, SQEP roles and career pathways in line with the Waste People Plan.</p>
<p>LLWR – Development and implementation of Integrated treatment services (covering Expert Services and Alternative Treatment; Waste Characterisation Assurance Support Services (WCASS); Combustible Treatment and Supercompaction</p>	<p>LLWR – Develop and implement plan for improving skills and knowledge in managing the non-radiological aspects of waste.</p>

<p>Management of problematic wastes and wastes at the LLW / ILW boundary is business-as-usual.</p>	
<p>Magnox – Management of Magnox problematic wastes</p>	<p>Magnox – Mixing and conditioning borderline and LLW sludges, resins, and other wet / organic wastes across Magnox to optimise disposability.</p>
<p>Sellafield – Work with LLWR to develop and implement the BAT approach for the management of 3000 drums of AGR Graphite.</p>	<p>Sellafield – Work with LLWR to identify the appropriate approach to handle the residual materials from the Floc Storage Tanks.</p>
<p>Sellafield – Work with LLWR to progress disposal of Tranche 2 of WAGR boxes that have been determined to be suitable for management as LLW.</p>	

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9. Strategic Threats and Opportunities

Strategic Threats					
	<2%	2-25%	26-50%	51-80%	>80%
	Very Unlikely	Unlikely	Possible	Likely	Very Likely
Severe	High (11)	High (15)	High (17)	Very High (19)	Very High (20)
Major	Medium (7)	Medium (9) 3 5	High (14) 1	High (16)	High (18)
Moderate	Low (4)	Low (5) 4	Medium (8) 2	High (12)	High (13)
Marginal	Very Low (1)	Very Low (2) 7 6	Low (3)	Medium (6)	Medium (10)

Strategic Threat	
1.	Significant waste mis-consignment event causes partial or full closure of diversion or disposal route(s).
2.	Insufficient radiological, non-radiological or volumetric capacity in the supply chain. Or excessive demand for capacity.
3.	Insufficient non-radiological, radiological or volumetric capacity at LLWR.
4.	Changes in legislation, governmental policy or regulatory perspective prevents or significantly impacts execution of LLW Strategy.
5.	Large, volumes of waste from rad contaminated land remediation generated and managed off-site as lower activity waste.
6.	Non-industry stakeholder concerns over radioactive waste management constrain access to existing routes and / or development of new routes and facilities.
7.	Global event (such as a future pandemic or war) impacts functioning of all parts of the LLW community, waste management and route availability.

Strategic Opportunities					
	<2%	2-25%	26-50%	51-80%	>80%
	Very Unlikely	Unlikely	Possible	Likely	Very Likely
Marginal	Very Low (1)	Very Low (2) 3 4	Low (3) 5	Medium (6)	Medium (10)
Significant	Low (4)	Low (5)	Medium (8) 1 2 6	High (12)	High (13)
Major	Medium (7)	Medium (9)	High (14)	High (16)	High (18)
Substantial	High (11)	High (15)	High (17)	Very High (19)	Very High (20)

	Strategic Opportunity
1	Positive step change in the sustainability of the supply chain.
2	Relevant ILW diverted from HAW disposal.
3	Buffer storage capabilities can be mobilised for contingency situations (only).
4	Improved use of transport infrastructure to support management of LLW.
5	Fit-for-purpose flexible and agile packaging fleets available for LLW management.
6	Management solutions available and in use for complex, challenging and problematic LLW (PW).