

Business Performance - Site Licence Companies

Sellafield Ltd

Priority Programme – Pile Fuel Storage Pond (PFSP) 2018/19 Business Plan activities

The PFSP is 1 of 4 legacy ponds and silos facilities at Sellafield prioritised for clean-up by the NDA.

Objective

To retrieve and package the waste from the Pile Fuel Storage Pond for long-term storage prior to disposal, followed by dewatering of the pond and putting the facility into an interim end state for long-term management. Final decommissioning of the facility is outside the scope of the current programme and is linked to the overall end state for Sellafield.

Activity	Timescale	2018/19 Target	2018/21 Target	Comments
Site Decommissioning and Remediation				
Continue sustained sludge exports.	2018/21		DEFERRED	Sludge exports and bulk desludging remain paused, with other aspects of programme prioritised to ensure progress in priority areas. Bulk desludging restart now planned for last half of 2019/20.
Ready to start dewatering.	2018/21		DEFERRED	Now forecast to commence dewatering in June 2021 (previously March 2019) as a result of the additional scope to clear the bay floors for the Bay Interim State Pilot (BISP).

Priority Programme - First Generation Magnox Storage Pond (FGMSP) 2018/19 Business Plan activities

FGMSP is 1 of 4 legacy ponds and silos facilities at Sellafield prioritised for clean-up by the NDA.

Objective

To retrieve and package the waste from the First Generation Magnox Storage Pond for long-term storage prior to final disposal, followed by the decommissioning of the facility.

Major Projects within the FGMSP Programme:

Bulk Sludge and Fuel Retrievals: This project will provide the main capabilities to retrieve sludge, fuel and other solid waste from the pond and highest priority de-canning facilities ('wet bays'). This project is in the delivery phase.

Activity	Timescale	2018/19 Target	2018/21 Target	Comments
Site Decommissioning and Remediation				
Commence Bulk sludge removal from D Bay.	2018/21		ON TARGET	
Continue to export fuel and sludge from the pond.	2018/21		ON TARGET	

Business Performance - Site Licence Companies

Sellafield Ltd

Priority Programme - Pile Fuel Cladding Silo (PFCS) 2018/19 Business Plan activities

PFCS is 1 of 4 legacy ponds and silos facilities at Sellafield prioritised for clean-up by the NDA.

Objective

To retrieve and package the waste from the Pile Fuel Cladding Silo into a passively safe form ready for disposal, followed by the decommissioning of the PFCS facility.

Major Projects within the PFCS Programme:

- PFCS Early Retrievals: This project covers the design, installation and commissioning of the integrated systems needed to retrieve the solid wastes from the PFCS. The project is currently in the delivery phase with construction of some of the specialist equipment already in progress.
- Box Encapsulation Plant Product Store – Direct Import Facility (BEPPS-DIF): This project will provide an interim-storage facility for packaged waste from the PFCS and other Sellafield facilities, most notably MSSS. This project is in the construction phase with civils works ongoing

Activity	Timescale	2018/19 Target	2018/21 Target	Comments
Site Decommissioning and Remediation				
Completion of Inactive Safety commissioning of Box Encapsulation Plant and Product Store (BEPPS)/Direct Import Facility (DIF).	2018/21		BEHIND TARGET	Project delivery issues have resulted in additional cost and time being introduced.
Commence inactive commissioning of waste retrieval equipment.	2018/21		ON TARGET	
Move to volume production of 3m3 boxes.	2018/21		ON TARGET	
Begin retrievals from the Pile Fuel Cladding Silo	2018/21		ON TARGET	

Priority Programme – Magnox Swarf Storage Silo (MSSS) 2018/19 Business Plan activities

MSSS is 1 of 4 legacy ponds and silos facilities at Sellafield prioritised for clean-up by the NDA.

Objective

To retrieve and package the waste from the Magnox Swarf Storage Silos into a passively safe form for long-term storage ready for disposal, followed by the decommissioning of the MSSS facility.

Major Projects within the MSSS Programme

- Box Encapsulation Plant (BEP): This project will deliver the facility that will be used to treat and immobilise waste from MSSS, as well as other legacy facilities, to allow the waste to be interim-stored pending final disposal. The project is in the construction phase.
- Silo Emptying Plant (SEP) Solid Waste Storage Retrievals: This project will deliver the capability to mechanically retrieve waste from the MSSS silos and to export it (via shielded packages) to the downstream waste receipt facilities. The project is in delivery with the earliest date that retrievals can start being accelerated from 2023 to 2019.
- Silo Maintenance Facility: This project will provide capability to store, decontaminate, maintain and change over retrieval equipment and tool/waste packages used for retrieval from the silos. The project is in the construction phase with commissioning expected to complete in 2019.

Activity	Timescale	2018/19 Target	2018/21 Target	Comments
Site Decommissioning and Remediation				
Implement the revised Magnox Swarf Storage Silo Strategy.	2018/21		ON TARGET	
Complete active commissioning of SEP 2 (Silo Emptying Plant).	2018/21		ON TARGET	First retrievals expected in late 2019/ early 2020.
Commence SEP1 (Silo Emptying Plant) Phase 1 active	2018/21		BEHIND TARGET	Delays experienced in final installation of equipment due to complexity and interaction with other activities
Silos Maintenance Facility complete.	2018/19	ACHIEVED		Project complete in January 2019.
First export of waste through the Encapsulated Product Store - waste treatment route.	2018/21		ON TARGET	
Progress the project for the bulk manufacture of 3m3 boxes.	2018/21		ON TARGET	
Begin retrievals from the Magnox Swarf Storage Silo.	2018/21		ON TARGET	

Priority Programme – Sellafield Security Enhancements Programme (SSEP) 2018/19 Business Plan activities

Objective

To deliver a series of interdependent security enhancements on the Sellafield site.

Major Projects within the SSEP Programme:

- Fence Civils Cluster: This project is providing additional layers of physical security at the Sellafield site including new fences, rail gates, turnstiles, search areas and vehicle barriers. The project outputs are now being turned into capabilities.
- Technology Cluster: The project outputs will provide the site with a unified command and control capability. This will include the collocation of emergency response services and site emergency management teams to provide a centralised location from which to plan, manage and co-ordinate emergency response and recovery activities.
- Cyber Security: The cyber project continues to make good progress against the known cyber risks and vulnerabilities.

Activity	Timescale	2018/19 Target	2018/21 Target	Comments
Critical Enablers				
Continue the Sellafield security enhancement programme.	2018/21		ON TARGET	

Other Sellafield 2018/19 Business Plan activities				
Activity	Timescale	2018/19 Target	2018/21 Target	Comments
Site Decommissioning and Remediation				
Continue the decommissioning and demolition of Windscale Pile Chimney Number 1.	2018/21		ON TARGET	
Continue the demolition of SEP Head End Stack.	2018/21		ON TARGET	
Complete the removal of remaining gloveboxes from Finishing Line 3.	2018/21		ON TARGET	
Spent Fuels				
Completion of THORP reprocessing.	2018/21	ACHIEVED		
Continue to receive and manage AGR spent fuel from EDF Energy.	2018/21		ON TARGET	
Continue to reprocess Magnox spent fuel in line with Magnox Operating Plan (MOP) 9.	2018/21		BEHIND TARGET	At the end of March 2019 the MOP programme was around 100te behind the MOP9 target, with the in-year production target at Sellafield missed. There is still confidence in Sellafield's ability to recover the position by Dec 2020 given actions to reduce risk and maximise plant availability in the final two years of operation.
Nuclear Material				
Continue the safe and secure storage of plutonium in line with UK policy.	2018/21		ON TARGET	
Continue to receive and securely store special nuclear materials from Dounreay.	2018/21		ON TARGET	
Ensure safe, secure management of our uranics inventory.	2018/21		ON TARGET	
Integrated Waste Management				
Continue to process Highly Active Liquor (HAL) through the Waste Vitrification Plant.	2018/21		ON TARGET	
Continue the programme to repatriate overseas owned vitrified waste to its country of origin.	2018/21		ON TARGET	
Continue to generate savings and preserve capacity at the LLW Repository by diversion of materials into the supply chain for alternate treatment.	2018/21		ON TARGET	
Continue the programmes to receive and treat waste materials from Harwell and AWE Aldermaston.	2018/21		ON TARGET	
Critical Enablers				
Continue with improvements to the site utilities infrastructure.	2018/21		BEHIND TARGET	Improvements to the Infrastructure Utilities continue through the delivery of maintenance (short term), asset care (medium term) and projects (long term). An incident involving damage to a high voltage underground electric cable during excavation works has impacted project delivery.
Continue the Sellafield Limited Transformation to support future business requirements.	2018/21		ON TARGET	
Continue the project to improve and replace Analytical Services.	2018/21		ON TARGET	
Progress the improvement of project delivery on site.	2018/21		ON TARGET	
Support Small and Medium Enterprise organisations by targeting overall spend with them in line with the government Growth Agenda.	2018/21		ON TARGET	
Continuation of information assurance activities and supporting processes.	2018/21		ON TARGET	
Prepare the business to move out of reprocessing.	2018/21		ON TARGET	
Implement and embed the long-term partnership with the supply chain in Major Projects (Programme and Project Partnership - PPP).	2018/21		ON TARGET	
Work collaboratively with NuGen to manage issues and opportunities arising from the neighbouring Moorside site.	2018/21		ON TARGET	Noting that Moorside project has now been paused.
Progress with the project to provide contingency against failure of vessels and pipework in the Site Ion Exchange Plant.	2018/21		ON TARGET	

Business Performance - Site Licence Companies

Magnox

Magnox Ltd is responsible for the operation of 11 sites: Berkeley, Chapelcross, Dungeness A, Harwell, Hinkley Point A, Hunterston A, Oldbury, Sizewell A, Trawsfynydd, Winfrith and Wylfa and

managing Bradwell site in Care and Maintenance.
Operated by PBO: Cavendish Fluor Partnership – (Cavendish Nuclear and Fluor Corporation) until 31 August 2019. On the

1 September 2019 Magnox Limited will become a wholly owned subsidiary of the NDA.

Magnox Decommissioning Programme

Programme objective

To complete defuelling in line with the Magnox Operating Programme (MOP) and to deliver the 12 Magnox sites into their Care and Maintenance (C&M) interim state (note for Winfrith this will be its final end state).

Progress

Decommissioning across most Magnox sites continues broadly to plan, with continuous challenge and review of the baseline to improve efficiencies in delivery. Performance issues have resulted in delays to planned work at some Magnox sites, with the potential to challenge Interim States / Interim End States.

All three Low Level Waste (LLW) diversion targets set in the 2018/19 Joint

Waste Management Plan have been met and legacy waste stockpiles are being reduced.

The Care and Maintenance programme, in partnership with Office for Nuclear Regulation Civil Nuclear Security, continues to test security arrangements in preparation for Magnox sites entrance into Care and Maintenance, following entry of the first site (Bradwell in November 2018).

An asbestos management improvement plan continues to be delivered across all Magnox sites.

The Magnox Transition Programme is on track to deliver the successor to the current Magnox PBO business model by the 1 September 2019, this being the completion date of the Magnox Termination Period.

Magnox Decommissioning Programme 2018/19 Business Plan activities

Magnox Ltd

Activity	Timescale	2018/19 Target	2018/21 Target	Comments
Site Decommissioning and Remediation				
Bradwell to achieve its Interim State and move into the effective Care and Maintenance phase.	2018/19	MISSED		Bradwell has entered Care and Maintenance; however it will not reach its Interim State until 2019/20
Continuation of estate decommissioning and demolition activities working towards Interim States.	2018/21		ON TARGET	
Continue preparations for Winfrith to enter its Interim State.	2018/21		BEHIND TARGET	A review is currently being undertaken of all lifetime plans (LTPs) across the programmes, sites and central functions. This is to enable a fresh look at the work left to deliver on the Winfrith site to take it into its Interim End State. Once this is agreed priorities will be set taking into account the funding available.

Business Performance - Site Licence Companies

Magnox

Magnox Decommissioning Programme 2018/19 Business Plan activities

Magnox Ltd

Activity	Timescale	2018/19 Target	2018/21 Target	Comments
Spent Fuels				
Completion of Magnox fuel flask fleet management and transfer responsibility to Sellafield Ltd.	2018/21		ON TARGET	A transfer plan has been approved and work is ongoing to deliver the identified activities.
Completion of Wylfa defueling.	2018/21		ON TARGET	
Management of MOP9 and co-ordination of Magnox fuel management activities with Sellafield and Dounreay.	2018/21		ON TARGET	
Nuclear Materials				
Continuation of the programme for the transfer of nuclear materials.	2018/21		ON TARGET	
Integrated Waste Management				
Delivery of the Magnox elements of the estate-wide low level waste management plan including diversion to alternative treatment.	2018/21		ON TARGET	
Progression of activities to retrieve, process and package wastes.	2018/21		ON TARGET	
Asbestos management – Continued focus on the major risk of asbestos including production of an optimised, underpinned strategy for asbestos, without detriment to Care and Maintenance.	2018/21		ON TARGET	
Critical Enablers				
Support to the Government in activities to deliver the new build agenda and preparations for decommissioning the AGR fleet.	2018/21		ON TARGET	
Continuation of information governance activities and supporting processes.	2018/21		ON TARGET	
Support Small and Medium Enterprise organisations by targeting overall spend with them in line with government Growth Agenda	2018/21		ON TARGET	
Support to NDA in property activities to reduce NDA decommissioning liability and achieve best value on asset disposal.	2018/21		ON TARGET	
Development of Interim End State approaches, utilising revised management arrangements.	2018/21		ON TARGET	
Enacting management arrangements for Care and Maintenance state.	2018/21		ON TARGET	

Berkeley

Activity	Timescale	2018/19 Target	2018/21 Target	Comments
Site Decommissioning and Remediation				
Decommissioning and demolition activities ongoing in preparation for entry into Care and Maintenance.	2018/21		ON TARGET	On target for activities planned during the 2018/21 business plan period.
Integrated Waste Management				
Continuation of retrieval and packaging activities in the active waste vaults.	2018/21		BEHIND TARGET	Fuel Element Debris retrievals ongoing but issues with waste characteristics have impacted programme schedule and review of these impacts is ongoing.
Continuation of design and commissioning of shielded area waste retrieval equipment.	2018/21		ON TARGET	
Continuation of waste retrieval plant design, commissioning and packaging.	2018/21		ON TARGET	
Design and Build of encapsulation facility	2018/21		ON TARGET	

Bradwell

Activity	Timescale	2018/19 Target	2018/21 Target	Comments
Site Decommissioning and Remediation				
Decommissioning and demolition activities in preparation for entry into Care and Maintenance.	2018/19	ACHIEVED		
Ponds complex and contaminated structures (vaults) completed for entry into Care and Maintenance.	2018/19	ACHIEVED		
Completion of final closures for reactor buildings safestore	2018/19	ACHIEVED		
Site completes activities to enable entry into effective Care and Maintenance.	2018/19	ACHIEVED		
Interim State of lead site achieved.	2018/19	MISSED		Bradwell has entered Care and Maintenance; however it will not reach its Interim State until 2019/20.
Integrated Waste Management				
Completion of transition management arrangements for Care and Maintenance.	2018/19	ACHIEVED		

Business Performance - Site Licence Companies

Magnox

Chapelcross				
Activity	Timescale	2018/19 Target	2018/21 Target	Comments
Site Decommissioning and Remediation				
Continuation of pond operations.	2018/19	ACHIEVED		
Decommissioning and demolition activities in preparation for entry into Care and Maintenance.	2018/21		ON TARGET	
Integrated Waste Management				
Intermediate Level Waste (ILW) retrievals.	2018/19	DEFERRED		ILW Skip Retrievals forecasted to complete in 2020.
Interim Storage Facility (ISF) constructed and commissioned.	2018/19	MISSED		ISF constructed but will not be commissioned until June/July 2019.

Dungeness A				
Activity	Timescale	2018/19 Target	2018/21 Target	Comments
Site Decommissioning and Remediation				
Ponds cleaned and stabilised.	2018/19	MISSED		Ponds have been drained, with decontamination ongoing. Delayed due to operational issues within plant on site
Decommissioning and demolition activities in preparation for entry into Care and Maintenance.	2018/21		ON TARGET	
Integrated Waste Management				
Increase waste conditioning facility capability.	2018/19	MISSED		The initial location identified was found to be suboptimal therefore the capability is to be installed at another location on site. Further scope slowed down due to funding deferrals.
Retrievals, treatment and transport of ILW.	2018/19		ON TARGET	
Bulk asbestos removal from reactor buildings.	2018/21		ON TARGET	

Harwell

Activity	Timescale	2018/19 Target	2018/21 Target	Comments
Site Decommissioning and Remediation				
Continuation of Liquid Effluent Treatment Plant (LETP) area environmental restoration.	2018/21		ON TARGET	
Decommissioning and demolition activities.	2018/21		ON TARGET	
Nuclear Materials				
Continuation of the programme for the transfer of nuclear materials and contact-handled ILW.	2018/21		ON TARGET	
Integrated Waste Management				
Completion of ILW Store construction.	2018/19	ACHIEVED		
Recovery, processing and packaging of solid ILW.	2018/21		ON TARGET	
Preparations for decommissioning of radium chemistry facilities.	2018/21		BEHIND TARGET	Characterisation works slowed and plan currently being reviewed, with programme delay likely.

Hinkley Point A

Activity	Timescale	2018/19 Target	2018/21 Target	Comments
Site Decommissioning and Remediation				
Decommissioning and demolition activities in preparation for entry into Care and Maintenance.	2018/21		ON TARGET	
Complete deplant and demolition of Turbine Hall.	2018/21		ON TARGET	
Integrated Waste Management				
Complete Wet Waste and Vessel consolidations.	2018/19	ACHIEVED		
Continuation of FED retrieval activities..	2018/21		BEHIND TARGET	Fuel Element Debris waste retrievals have been significantly delayed and a review of the methodology is under way to recover the plan.
Continuation of ILW skip management arrangements.	2018/21		ON TARGET	
Complete waste conditioning facility construction and commissioning.	2018/21		ON TARGET	
Continue preparations for Sludge Canning Building waste retrievals.	2018/21		ON TARGET	

Business Performance - Site Licence Companies

Magnox

Hunterston A				
Activity	Timescale	2018/19 Target	2018/21 Target	Comments
Site Decommissioning and Remediation				
Decommissioning and demolition activities in preparation for entry into Care and Maintenance.	2018/21		ON TARGET	
Integrated Waste Management				
Completion of solid ILW encapsulation plant construction and mechanical and electrical installation.	2018/21		BEHIND TARGET	Solid Intermediate Level Waste Encapsulation (SILWE) project behind schedule. Recovery plan is in place.
Progressing of ILW retrievals, processing and storage activities.	2018/21		ON TARGET	

Oldbury				
Activity	Timescale	2018/19 Target	2018/21 Target	Comments
Site Decommissioning and Remediation				
Decommissioning and demolition activities in preparation for entry into Care and Maintenance.	2018/21		ON TARGET	
Complete ponds decommissioning preparations.	2018/21		ON TARGET	
Integrated Waste Management				
ILW retrieval enabling works.	2018/21		ON TARGET	
Progression of activities supporting consolidated ILW storage.	2018/21		ON TARGET	
Commence retrievals, treatment and transport of ILW.	2018/21		ON TARGET	

Sizewell A

Activity	Timescale	2018/19 Target	2018/21 Target	Comments
Site Decommissioning and Remediation				
Decommissioning and demolition activities in preparation for entry into Care and Maintenance.	2018/21		ON TARGET	
Continuation of ponds decommissioning.	2018/21		ON TARGET	
Ponds draining and stabilisation.	2018/21		ON TARGET	
Integrated Waste Management				
FED retrievals.	2018/21		BEHIND TARGET	Delay to progression on the Fuel Element Debris (FED) retrieval overbuilding is likely to have an effect on FED retrievals dates – a revised schedule being developed.
ILW retrieval enabling works.	2018/21		BEHIND TARGET	The Waste Programme has prioritised delivery of other site plants, resulting in delay to progress at Sizewell.
Progression of activities supporting consolidated ILW storage.	2018/21		BEHIND TARGET	Some delay due to funding constraints deferring scope.

Trawsfynydd

Activity	Timescale	2018/19 Target	2018/21 Target	Comments
Site Decommissioning and Remediation				
Continue developing strategy for ponds End State conditions.	2018/21		ON TARGET	
Decommissioning and demolition activities in preparation for entry into Care and Maintenance.	2018/21		ON TARGET	
Integrated Waste Management				
Completion of sludge and resin encapsulation.	2018/19	MISSED		Bulk sludge recovery is complete. Final plant washout is in progress and is nearing completion. Completion is now forecast for quarter one of 2019/20.
FED retrievals and encapsulation.	2018/21		ON TARGET	

Winfrith

Activity	Timescale	2018/19 Target	2018/21 Target	Comments
Site Decommissioning and Remediation				
SGHWR – development of the detailed design to remove the reactor core.	2018/19	MISSED		Works progressing but with some delay which is not recoverable. Forecast to complete Sept 2019.
SGHWR – completion of primary containment decommissioning activities.	2018/19	MISSED		Works progressing but with delay which is unlikely to be recoverable.
DRAGON – continue reactor decommissioning.	2018/21		ON TARGET	
SGHWR – continue design and build of reactor decommissioning equipment.	2018/21		BEHIND TARGET	Works progressing but with some delay.
SGHWR – continue decommissioning of the primary and secondary containment areas.	2018/21		BEHIND TARGET	Works progressing but with some delay which is not recoverable.
Decommissioning and demolition activities.	2018/21		ON TARGET	

Wylfa

Activity	Timescale	2018/19 Target	2018/21 Target	Comments
Site Decommissioning and Remediation				
Decommissioning and demolition activities in preparation for entry into Care and Maintenance.	2018/21		ON TARGET	
Provision of support and assets to nuclear new build.	2018/21		ON TARGET	Noting that Horizon nuclear new build programme has been paused
Spent Fuels				
Defueling activities in line with MOP9	2018/21		ON TARGET	
Integrated Waste Management				
Continuation of ILW retrievals and packaging.	2018/21		ON TARGET	
Continuation of waste retrieval enabling activities.	2018/21		ON TARGET	

Business Performance - Site Licence Companies

Dounreay Site Restoration Ltd

DSRL is contracted to carry out the decommissioning of the Dounreay site as well as the operation of the Low Level Waste (LLW) disposal facility next to the licensed site. In March 2015, a revised Lifetime Plan was approved, incorporating scope to move material from Dounreay to Sellafield, which had not been agreed or finalised when the original contract was signed.

In July 2015, this scope was further updated. Dounreay will continue to deliver within its assigned annual site funding limits, while also delivering the additional scope. The contract extension required for the additional scope is still earlier than the pre-competition baseline for achieving Interim End State. The activities below give the current understanding of the updated plans and are subject to change.

Operated by PBO: Cavendish Dounreay Partnership Ltd – Cavendish Nuclear, Jacobs and AECOM

Dounreay Decommissioning Programme

Programme objective

To achieve an Interim End State for the Dounreay site such that no further work will be required, other than natural decay of radioactive materials to achieve the closure thresholds required for site end state.

Progress

The 2018/19 Business Plan activity target for the demolition of the Dounreay Material Test Reactor (DMTR) building complex (excluding the reactor) was deferred due to the reprioritisation of the Dounreay material consolidation programme. The overall target

associated with the multi-agency materials consolidation was missed as a result of additional scope requirements and off-site constraints however some significant interim targets were achieved during the year. The target date to achieve the Interim

End State and the associated Target Cost has been reviewed as a consequence of supporting the consolidation of 'exotic' fuels at Sellafield.

Dounreay Decommissioning Programme 2018/19 Business Plan activities

Activity	Timescale	2018/19 Target	2018/21 Target	Comments
Site Decommissioning and Remediation				
Dounreay Materials Test Reactor (DMTR) building complex structures demolished (excluding the reactor).	2018/19	DEFERRED		As part of the overall programme realignment due to the exotic programme, this work was deferred until 2022; dates are now aligned with the accepted contractor programme to complete the work.
Spent Fuels				
Exotics – complete delivery of all unirradiated fuels.	2018/19	MISSED		Completion date moved to late 2019.
Critical Enablers				
Support small and medium enterprise (SME) organisations by measuring and reporting overall spend with them, in-line with the government growth agenda.	2018/21		ON TARGET	

Business Performance - Site Licence Companies

Low Level Waste Repository Ltd

Low Level Waste Repository Ltd (LLWR) is responsible for both the operation of the LLW site and the delivery of the National Low Level Waste Programme on behalf of the NDA.

Operated by PBO: UK Nuclear Waste Management Ltd – AECOM, Studsvik AB, Orano SA

National Low Level Waste (LLW) Programme

Programme objective

To champion the adoption of the Waste Hierarchy (prevention, minimisation, re-use, recycling and disposal) across the NDA Group to significantly reduce the costs of dealing with low level waste and to avoid the need for a second UK low level waste repository.

Progress

There have been 1695 shipments of LLW through the waste management service frameworks this financial year, a significant increase over last year (30%) and continuing a trend of year-on-year increases.

There has been £95 million of cost avoidance against the contract to date, from the diversion of LLW waste away from disposal at LLWR against a Year 1 target of £84 million, making good progress against the contract commitment.

Tranche 1 of the Repository Development Programme to cap and close the existing Vault 8 and adjacent trench disposal facilities continues to progress with completion of the 'Evaluate Phase' of the enabling works being completed to plan along with the completion of the detailed design of the 'cut off wall' and preliminary design for the 'void fill' from Vault 8 Closure.

Decommissioning of the historic Plutonium Contaminated Material (PCM) facilities has maintained good progress despite

ongoing challenges associated with legacy waste and contamination levels; Decommissioning of three of the four PCM Magazine Facilities was completed to meet 2018/19 target dates.

LLWR has also continued with site security enhancements with construction of the civil structure for the Security Fence Control Centre being completed and fit out of the mechanical and electrical and security systems being progressed.

Business Performance - Site Licence Companies

Low Level Waste Repository Ltd

National Low Level Waste (LLW) Programme 2018/19 Business Plan activities				
Activity	Timescale	2018/19 Target	2018/21 Target	Comments
Site Decommissioning and Remediation				
Complete decommissioning of Plutonium Contaminated Material (PCM) facilities. 2018/19	2018/19	MISSED		Level of contamination found within facilities was greater than expected – Forecast May 2019 Completion
Ongoing site preparation for phased construction of the final cap for trenches 1 to 7 and Vault 8. 2018/21	2018/21		ON TARGET	
Integrated Waste Management				
Delivery of the National LLW Programme to optimise LLW Strategy implementation. Work with consigning SLC's to improve waste forecasts and inventory and continue segregated waste, treatment and disposal services.	2018/21		ON TARGET	
Work with the NDA to support innovation in approaches to waste management.	2018/21		ON TARGET	
Type B Programme fleet commences key transport scope.	2018/21		ON TARGET	
Critical Enablers				
Complete Site Security Programme.	2018/19	ACHIEVED		
Support hazard reduction across the NDA estate.	2018/21		ON TARGET	
Manage and operate LLWR safely to provide an effective UK disposal service.	2018/21		ON TARGET	
Consideration of options to further optimise operations at the LLWR.	2018/21		ON TARGET	
Continue to pursue overall cost savings in delivery of the Lifetime Plan.	2018/21		ON TARGET	
Support Small and Medium Enterprise organisations by targeting overall spend with them in line with the government Growth Agenda.	2018/21		ON TARGET	

Business Performance - Other businesses that support the NDA mission

Urenco Nuclear Stewardship Ltd

Owned by: URENCO

The NDA Capenhurst site is located near Ellesmere Port in Cheshire, and was formerly home to uranium enrichment plant and associated facilities that ceased operation in 1982.

In 2012, the site was transferred to URENCO, owners of the adjacent licensed site, and was amalgamated into a single nuclear licensed site, paving the way for

URENCO to invest in new facilities, in order to meet future customer demand. As part of this transfer, URENCO established Urenco Nuclear Stewardship (UNS), formerly known as Capenhurst Nuclear Services, to provide responsible management of uranic materials and carryout remediation work on behalf of NDA.

UNS manages 95% of the NDA's uranic inventory and provides broader decommissioning and remediation works for redundant facilities, in order to utilise space to maximise efficiency. NDA and UNS have also signed an agreement for the processing of UK Government-owned by-product/legacy material from uranium enrichment (known as 'Tails') through URENCO's Tails Management Facility.

Activity	Timescale	2018/19 Target	2018/21 Target	Comments
Site Decommissioning and Remediation				
Progress Legacy Cylinder Facility (LCF) Design.	2018/19	DEFERRED		Agreement to defer appointment of EPC contractor to design the LCF
Continued safe storage of uranic materials.	2018/21		ON TARGET	

Springfield Fuels Ltd

Owned by: Westinghouse Electric UK Holdings Ltd

Springfields is a nuclear fuel manufacturing site and is located near Preston in Lancashire. The site is operated by Springfields Fuels Limited (SFL) and used to manufacture a range of fuel products for both UK and international customers and

decommissioning historic uranic residues and redundant facilities.

From April 2010, the NDA permanently transferred ownership of the company to Westinghouse Electric including the

freedom to invest for the future under the terms of a new 150 year lease. SFL is contracted to provide decommissioning and clean up services to the NDA to address historic liabilities.

Activity	Timescale	2018/19 Target	2018/21 Target	Comments
Site Decommissioning and Remediation				
Progress decommissioning of the Magnox Fuel Production facilities.	2018/21		ON TARGET	
Continue management of historical legacy materials and facilities.	2018/21		ON TARGET	

Business Performance - Other businesses that support the NDA mission

Direct Rail Services Ltd

Wholly owned by the NDA

Direct Rail Services Ltd (DRS) was established in 1995 to provide rail transport for nuclear material in the UK.

DRS has built up industry-leading expertise in the movement of spent nuclear fuel, decommissioning waste and in providing support for nuclear construction. DRS continues to provide a co-ordinated

service to the nuclear estate. As part of its mission, DRS looks to be the world leader in safe, secure and reliable nuclear rail logistics in support of the NDA mission, harnessing a culture of innovation, pride, respect and environmental awareness whilst providing value for money on behalf of the UK taxpayer.

During the year, DRS was named Business of the Year 2018, by the Rail Freight Group.

Key Activity 2018/21	2018/19 Status
Delivery of the rail transport element in support of the completion of MOP	ON TARGET
Support national nuclear material rail movements for Harwell, Winfrith and DSRL.	ON TARGET
Support AGR fuel movements by rail for EDF Energy from stations to Sellafield.	ON TARGET
Support the discharge of NDA obligations with respect to MOD Nuclear rail transportation.	ON TARGET
Provide value for money to the tax payer through the execution of identified non-nuclear work that complements the skills and capabilities required to support the core nuclear mission.	ON TARGET
Provide rail authority expertise to the NDA and consider areas of synergy between DRS and INS in support of the NDA's strategic transport capability review.	ON TARGET
Programme manage the manufacture of new rail wagons to support Magnox and EDF Energy.	ON TARGET
Operate and maintain a fleet of locomotives to support NDA operations.	ON TARGET
Attract and retain the necessary skills, capability and diversity of talent to deliver our rail logistics business in a safe, secure and reliable manner.	ON TARGET

Radioactive Waste Management Ltd

Wholly owned by the NDA

RWM's vision is a safer future by managing radioactive waste effectively to protect people and the environment.

RWM's mission and responsibility is to plan for, and ultimately deliver, geological disposal of higher activity wastes in accordance with government policy.

This includes developing a Geological Disposal Facility (GDF) and providing waste management solutions.

Key Activity 2018/21	2018/19 Status
Support the launch of the geological disposal siting process in line with government policy.	ON TARGET
Implement government policy on geological disposal of Higher Activity Waste (HAW) through effective engagement with willing communities in the delivery of a site for the construction and operation of a GDF	ON TARGET
Deliver a robust technical programme to drive our design and safety assessment work.	ON TARGET
Develop Radioactive Waste Management Limited into a competent delivery organisation.	ON TARGET
Work pro-actively with waste producers, planning for and delivering disposability assessments for their range of wastes.	ON TARGET
Develop and implement joint Integrated Radioactive Waste Programme with LLWR.	ON TARGET

Business Performance - Other businesses that support the NDA mission

International Nuclear Services Ltd

Wholly owned by the NDA

International Nuclear Services Ltd (INS) plays a vital role in support of the NDA's mission, managing a large portfolio of domestic and international contracts for nuclear fuel recycling and nuclear transport services on our behalf.

INS operates Pacific Nuclear Transport

Ltd (PNTL), the world's most experienced shipper of nuclear materials.

In 2018/19, the management of NDA's commercial contracts for nuclear fuel recycling and the commercialisation of NDA-owned intellectual property were transferred to the NDA Corporate Centre.

INS will continue its focus on the return of vitrified wastes to their country of origin. In addition INS will continue to provide transport services to existing international customers whilst also developing opportunities for new commercial business both internationally and in support of the UK decommissioning programme.

Key Activity 2018/21	2018/19 Status
Continue the management of contracts with international customers for spent fuel business.	ON TARGET
Manage uranium and plutonium services for international spent fuel business.	ON TARGET
Transport nuclear materials including Spent Fuel, Mixed Oxide (MOX) fuel, vitrified High Level Waste (HLW) and conditioned Intermediate Level Waste (ILW) internationally and shipments of materials under the US Government's Material Management and Minimisation (M3) initiative.	ON TARGET
Support the NDA in the development and implementation of transport solutions to enable the UK decommissioning programme.	ON TARGET
Continue, where appropriate, to seek opportunities for new business within shipping, transport package and system design for radioactive materials, and acting as an agent for the overseas sale of UK Intellectual Property in relation to spent fuel and waste management, nuclear decommissioning and transport.	ON TARGET

NDA Archives Ltd

Wholly owned by the NDA

NDA Archives Ltd operates as a separate delivery organisation for the provision of archive and records management services primarily to the NDA Group. They have established a number of Service and End User Agreements and are overseeing the management of a Commercial Partner (Restore Scan Limited) who is operating a purpose-built archive facility, Nucleus, the Nuclear and Caithness Archive, in Wick.

The NDA owns and is accountable for records from across the Group. They have developed a programme in order to apply

appropriate records management controls and to meet the statutory and regulatory obligations placed on the NDA, as a public authority, and the site licence companies as duty holders. The principal role of Nucleus is to consolidate, appropriately store, digitise and preserve these records ensuring that they remain secure, that their integrity stays intact (many of them will be required for 300+ years) and that they can be accessed in line with legislation and the relevant business requirements.

The facility was opened in early 2017 and

since then has accessioned hundreds of thousands of NDA records from, amongst others, the ex-UKAEA sites – Harwell and Dounreay, and from a number of other smaller archive collections. They have also welcomed thousands of visitors; both members of the public and sponsored visits from the global nuclear community including JAEA, OECD Nuclear Energy Agency and the IAEA. The focus now is on the archive holdings from both Sellafield and Magnox sites and it is expected that this sift and lift project will take a minimum of three years to complete.

Key Activity 2018/21	2018/19 Status
Nucleus working in accordance with the National Archive's Accreditation Standards (regulatory best practice).	ON TARGET
Complete relocation of the 'known' legacy archives, to include all ex-UKAEA records.	ON TARGET
Complete relocation of all NDA-owned and archived records above OFFICIAL-SENSITIVE.	ON TARGET
Continuing to work with interested third parties to potentially provide services to others outside the NDA estate.	ON TARGET
Optimise usage of the Nucleus facility with respect to Business Continuity and Resilience Planning requirements of the NDA and its estate.	ON TARGET

Business Performance - Other businesses that support the NDA mission

Rutherford Indemnity Ltd

Wholly owned by the NDA

Rutherford Indemnity is a regulated Guernsey insurance company dedicated to the provision of property, nuclear liability and other insurance to the NDA and Group.

Working with the NDA and its brokers, Rutherford agrees the risks that it is willing to insure, taking into account its ability to withstand losses. In some instances, Rutherford arranges additional cover from commercial reinsurers with approved credit ratings.

The company engages closely with the

NDA Group to understand and manage the risks faced and to drive down losses, and focus external insurance spend on those policies required by legislation. In this way it is able to help the NDA drive maximum value from its insurance programme.

There have been no major claims reported during the year.

Rutherford has substantial insurance reserves and its investment portfolio is overseen by an Investment Committee. Over the last year, these investments generated a return of 4.7%,

notwithstanding periods of volatility, remaining within the strict risk limits and ethical guidelines imposed by the Board.

Over the 5 year period of inception of the current investment strategy, a return of 25.5% was achieved compared to the target of 18.2%.

The company operates in accordance with the regulations issued by the Guernsey Financial Services Authority, and this year welcomed an additional locally based independent director to further strengthen their Board.

Key Activity 2018/21	2018/19 Status
Provide optimal insurance coverage to the NDA to support its estate-wide insurance programme and exploit opportunities to reduce overall cost of insurable risk.	ON TARGET
Explore all avenues to develop potential innovative solutions to the increased financial security or insurance requirements resulting from the Nuclear Installations (Liability For Damage) Order 2016 and to respond to emerging demands for new or additional policy cover.	ON TARGET
Continue to deliver the target return on the investment portfolio, protecting Rutherford's ability to offer insurance on a cost effective basis, maintaining liquidity in order to be able to respond promptly to major loss.	ON TARGET
Continue to explore ways to use a prudent proportion of Rutherford's investment portfolio to support infrastructure investment in the NDA estate.	ON TARGET
Implement new ways of working following changes in the group broking arrangements designed to improve efficiency and reduce costs.	ON TARGET
Re-compete contract for management of Rutherford Indemnity Limited (captive management contract).	ON TARGET

NDA Properties Ltd

Wholly owned by the NDA

NDA Properties Ltd owns and manages properties that are located outside the boundaries of nuclear licensed sites. In line with the NDA's Land and Property Management Strategy, these assets are selectively developed and their use optimised to benefit the NDA mission.

Key Activity 2018/21	2018/19 Status
Effective and proactive management of the property portfolio.	ON TARGET
Development of Off Site Command Facility at Moresby for Sellafield Ltd by 2019.	ON TARGET
Development of offices at Warrington to replace Hinton House by 2021.	ON TARGET
Disposal of surplus assets to raise capital receipts of circa £500,000 per annum.	ON TARGET