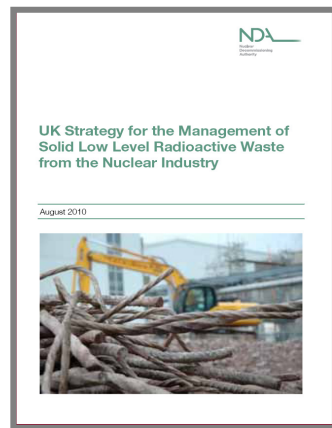


NDA launches final UK LLW Strategy

The NDA issued the *UK Strategy for the Management of Solid Low Level Radioactive Waste from the Nuclear Industry* on 31st August 2010.

Publication of the final strategy follows a formal consultation on the draft strategy from June to November 2009 prior to revision and submittal to Government for approval.

The strategy targets better application of the Waste Hierarchy to reduce the amount of solid LLW and decrease reliance on waste disposal at LLWR. The objective is to ensure continued capability and capacity for the safe, secure, and environmentally-responsible management and disposal of LLW in the UK.



Inventory is Key!

A key part of the ACCELS workstream is to deliver a step-change improvement in the quality of LLW inventory and forecast data. NDA has recently issued a specification to its sites requiring them to review their LLW inventory information and identify areas for improvement. As part of these reviews LLWR has participated in a recent series of Magnox studies which concluded that quantities of LLW from reactor decommissioning may be considerably less than previously thought, potentially resulting in significant cost savings to NDA. Similar inventory reviews have also been performed at Sellafield. LLWR is working with all NDA sites to improve inventory forecasts and to identify common approaches for estimating lifecycle waste inventories.

Acknowledgement & Endorsement of ACCELS

I would like to take this opportunity to thank you, and your respective teams, for your support of this programme to drive change into your LLW Management plans and programmes through challenging the current assumptions and developing short-medium term opportunities. This programme will allow us to collectively realise alternative approaches in LLW management and deliver alternative, cost-effective means to deliver substantive reductions in the NLE.

Tony Fountain, Chief Executive, NDA

(quoted from letter sent to NDA SLC's promoting Implementation of the Waste Hierarchy)

Big changes are on the way for users of Low Level Waste transport and disposal containers



The familiar half height ISO container will gradually be replaced by a range of more efficient designs - each optimised for different uses.

For transport of segregated waste between consignors and treatment facilities, (such as the Studsvik Metal recycling facility at Lillyhall), a reusable half height ISO will be in service by the end of the year. This container is designated 'TC02' and the prototype is undergoing final trials with the LLW operations team at the LLWR site.

TC02 is at the heart of a transport system which allows customers to place segregated waste into smaller containers, (usually located near to the point that waste is generated). Once filled, these smaller containers are secured to a stillage which is then lifted into the TC02 and secured remotely. The loaded TC02 is then sent to the treatment facility where the stillage is lifted out and the waste is prepared for processing.

This approach allows customers to segregate waste more effectively, eases the consignment process and avoids the difficulties associated with reuse that exist with the existing half height ISO



TC02 Container

The other major developments in packaging are linked to disposal containers; the existing half height ISO has an external volume of 20 cubic metres, but the space available inside it for waste is less than 16 cubic metres. To overcome this problem a new single use disposal container, designated DL01, is under development.

DL01 will have an external volume of 15cubic metres but the space available for waste will be around 14.5cubic metres!

A prototype DL01 will be delivered to the LLWR site for trials before 31 March 2011.

For further details on these innovations, or on the existing fleet of low level waste containers, contact the Consignor Support team at their email address: customerteam@llwrsite.com

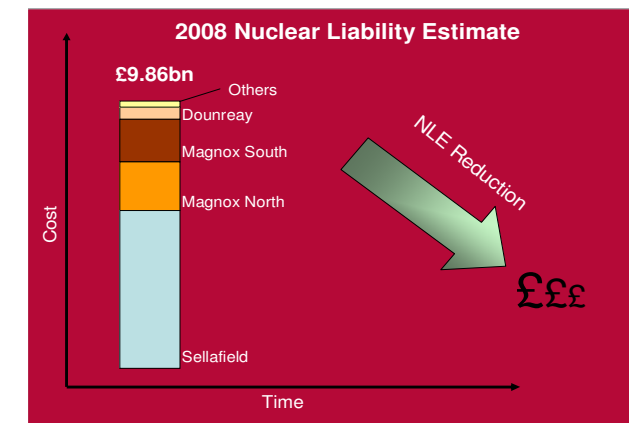
ON THE LEVEL

ISSUE 6, October 2010

NEWS AND VIEWS FROM THE LLW REPOSITORY

Saving £Billions through ACCELS

The Nuclear Liability Estimate (NLE) is the forecasted cost for NDA to deliver its mission over the next 100+ years. Through ACCELS, LLWR will reduce the cost of waste management to the UK taxpayer.



The Acceleration of Element 2 Strategy (ACCELS) was initiated in late 2009 to formally reduce the LLW Nuclear Liability Estimate (NLE) by accelerating implementation of the *UK Nuclear Industry LLW Strategy*. LLW Repository Ltd has the lead for the NDA estate to integrate the UK LLW management programme by executing the following ACCELS work streams:

- Providing enhanced integration across SLCs with increased alignment with the UK LLW Strategy and associated UK LLW Management Plan.
- Delivering a step-change improvement in LLW inventory and forecast quality.
- Delivering effective management of the NLE cost reductions within the NDA estate.
- Accelerating the use of LLWR's waste management services across the estate.

NDA and LLWR are focusing on 42 separate opportunities at NDA Site Licensed Sites (SLCs) and challenging the current assumptions to better align with the UK LLW Strategy. Current SLC Lifetime Plans (LTPs) often reflect highly conservative assumptions with regard to waste volumes and type of waste, resulting in poor waste estimates and artificially high costs. In addition, we are striving to incorporate state-of-the-art waste management practices at NDA sites using alternative waste management routes instead of simply defaulting to waste disposal at the LLW Repository in Cumbria. With our help, SLCs are modifying their LTPs by the end of this financial year (2010/2011) to reflect the latest waste inventories, innovations, and approaches in LLW management for the estate.

ACCELS Defined

“A programme of work led by LLW Repository Ltd for integrating LLW management throughout the NDA estate with the ultimate goal to reduce the overall lifecycle cost of LLW management and preserve the capacity of the LLW Repository – our National asset”



Directors Corner

LLW Repository leading ACCELS

Our mission is to support the UK's LLW management needs. We ensure the sustainability of the NDA's decommissioning work as well as other nuclear industry efforts. We support MOD's mission, university and hospital work and the full range of nuclear clean up. Our remit now goes well beyond the disposal of low level radioactive waste and includes implementing best waste management practices for the entire country. The recently approved *UK Strategy for the Management of Solid Low Level Radioactive Waste* is the roadmap for those efforts. We, as a repository and our consortium of parent companies, have many decades of world class experience in doing this important work and have recently undertaken a "full court press" to accelerate implementation of the strategy. Our collective efforts have been bundled under the ACCELS (Accelerated Element 2 Strategy) Programme. There are over 40 initiatives in ACCELS - many described in this newsletter. In addition to those already embedded in this programme we have brought to the table some of the worlds best experienced people to help us with this very important work. You will read in this edition the biographies of these new hands. LLWR is committed to improving the UK waste management schemes - and doing it quickly. We hope you will enjoy reading about this effort and the people who "lead the charge".

Dick Raaz

Managing Director

Integrated Low Level Waste Solutions

LLWR are leading on the delivery of the UK Nuclear Industry LLW Strategy. Through a programme of integrated Waste Services the Waste Hierarchy will be implemented in the most efficient, cost effective way.



The Metallic Waste service goes from strength to strength – wherever suitable waste is identified, all our customers are increasing their efforts to use the metal recycling service.

More than 500 tonnes of metallic waste will either be completely processed or in the hands of our treatment companies by December 2010, (we anticipate a big improvement on this figure by 31 March 2011!)

Highlights include;

- Treatment of waste from; Magnox (South), Devonport Royal Naval Dockyard, Medical Research Council and the Atomic Weapons Establishment has been completed over the last few months.
- Significant quantities of metal have also been identified for recycling by; British Energy, GE Healthcare and Magnox (North). Each opportunity to recycle metal in preference to disposing of it at LLWR is being progressed by the Consignor Support team through the new Waste Enquiry Process.
- Sellafield Ltd began consigning 200 tonnes of pond furniture to the Studsvik Metal Recycling facility at Lillyhall in mid October

Contracts are now in place for the start-up of the combustible waste service. Two UK incinerators have been selected and an application has been made to the Environment Agency to vary the LLWR Environmental Permit to allow storage of combustible materials on the LLWR site prior to transportation to the appropriate designated facilities and gain final regulatory approval to use these facilities.

In addition to the two UK providers, combustible waste treatment facilities in Sweden, Belgium, France and the USA are also under contract to LLW Repository Ltd

Our customers have already begun to submit formal enquires for this service. It is anticipated that the first consignments of combustible waste will be in process by December.



very low level

Progress continues to be made with establishing routes to enable VLLW disposal to commercial landfill, (in preference to disposing of VLLW at the LLWR). Detailed discussions between the NDA and Government are underway to address licensing/ approval of such facilities and the transfer of the civil nuclear liability.

Individual customers are exploring the possibility of consigning waste to LLWR for storage pending the opening of these routes; however this option is only being considered where there is clear environmental benefit.

The prototype reusable Half Height ISO transport container (designated 'TC02'), is due to arrive at the LLWR site before the end of October. The container will undergo handling trials to validate the documentation which will be provided to customers who choose to use this container. The TC02 has been designed to support the full range of waste services now offered by LLW Repository Ltd and will provide a safe and efficient means of loading, transporting and unloading of waste for treatment.

The first production TC02 has already been manufactured and will be available for use by customers in January 2011.

A prototype of the new Disposal Liner (designated 'DL01') is also in the final stages of design, with a prototype planned for completion by 31 March 2011. This container will cost less to buy and take up less vault space than the current Half Height ISO but will hold just as much waste!



Spotlight on Excellence

FACILITATING CHANGES AT NDA SITES

Focusing on NLE reduction, improving waste forecasts and inventory estimates and implementing innovative waste services are the primary objectives of these key roles under the ACCELS Programme.



Steve Rose



Courtney Apperson



Rachel O'Donnell

Steve Rose - ACCELS Programme Manager

I have over 35 years of experience in the solid and liquid radioactive waste business including 15 years as a government regulator in hazardous and non-hazardous wastes in the United States. I have specialised in nuclear waste management at several U.S. Department of Energy (DOE) sites including the Waste Isolation Pilot Plant (WIPP) in New Mexico where nuclear waste is emplaced 2,150 feet underground. During my time at WIPP, I assisted with the development and implementation of the Central Characterization Project (CCP) which has been deployed throughout the DOE complex to characterize and ship nuclear waste to the WIPP using standardized methods and procedures.

As the ACCELS Programme Manager, my objectives are to promote and support:

- A better understanding and consistent implementation of the ACCELS programme.
- Enhance programme integration across the SLCs in alignment with the *UK Strategy for the Management of Solid Low Level Radioactive Waste from the Nuclear Industry*.
- Improvement of the accuracy of the National Waste Inventory
- Reduce the NDA's overall LLW liability.

Courtney Apperson – ACCELS Integration Manager (Sellafield)

I come to LLWR with over 38 years of experience in the nuclear community of The United States. My experience ranges from the design of reactor cores for the production of special isotopes to nuclear criticality safety analysis to the dismantling of the historic Omega West Reactor at the Los Alamos National Laboratory. I have held a broad range of assignments within the US Department of Energy to include projects at Los Alamos National Laboratory, Savannah River National Laboratory and Rocky Flats. I have also had the opportunity to support projects at the Chalk River Laboratory in Canada and the Sellafield Site when it was managed by BNFL.

As the LLWR Project Manager for LLW Strategy Implementation at Sellafield I view the following objectives as my challenges:

- Support of the UK Nuclear Decommissioning Authority (NDA) in the implementation of an integrated LLW programme.
- Serve as lead contact with the NDA in developing and implementing the UK Nuclear Industry LLW Strategy on the Sellafield Site, and
- Ensure safe, productive, and cost-effective delivery of LLW strategy implementation work at Sellafield.

The successful execution of these objectives over the next two years will result in the dramatic implementation of the Waste Hierarchy.

The result will be increased segregation of metal, combustibles and VLLW therefore reducing the flow of LLW inventory to LLWR.

Rachel O'Donnell- ACCELS Integration Manager (Magnox)

Since I started in the nuclear and then waste management sectors I've encountered a broad range of waste streams and have been involved in the strategic planning of projects. This enables me to challenge the normal way of working and apply best practice from other sites and industries to waste management, practically and strategically.

As the Magnox Integration Manager my challenge will be to ensure that the objectives of the LLWR are met, in terms of application of the Waste Hierarchy to decommissioning balances with Magnox objectives in preparing for Care & Maintenance (C&M). The Magnox team have made great progress with the Smart inventory on all of the sites, which is going to provide good data to plan waste management activities. The next step is to cost these data and work out the new LLW (and waste management in general) costs in the LTP. Using these data going forward will allow a more integrated approach to waste management planning as part of the decommissioning process. As LLWR develops new services and waste routes my role will be key in communicating these and helping the team at Magnox integrate them into the process, improving efficiency and reducing costs.