

Nuclear services - Waste management services



Issues and Opportunities

The management of all of our society's waste is becoming more challenging and expensive as we seek to minimise environmental burdens and build a sustainable future. This is particularly reflected in the nuclear industry where there is increasing demand on diminishing disposal capacity. Waste management adds significantly to the cost of operating and decommissioning nuclear premises. Nuclear sites understand that waste management sits at the heart of successful programme delivery and are working hard to develop efficient and effective waste management techniques that are good for the environment and good for business.



Entec's Approach

Entec, has a demonstrable track record in both the waste industry and the nuclear sector. Central to our approach to waste management is the waste hierarchy which promotes waste minimisation, good waste management practices and the concept of sustainable development. We have the capabilities to support our clients in the selection of processes that eliminate or minimise waste production and the examination of plant and processes to reduce waste generation. Where waste generation cannot be avoided we assist our clients in the consideration of recycling/reuse opportunities and the identification of appropriate waste conditioning techniques. We specialise in the optimisation of waste sentencing routes and the integration of waste management plants and process.

Entec has considerable experience of the wide range of techniques required to demonstrate the robust application of the waste hierarchy. We have also developed a number of bespoke tools to assist with project delivery.

Our techniques include:

- Waste prevention and optimisation appraisal
- Assessment and review of waste management techniques/arrangements
- Development and implementation of quality management systems
- Development and management of waste management facilities
- Inventory generation and management
- Training and awareness
- Procurement management and support

Outcomes and Benefits

Our understanding of waste management issues combined with the practicable application of proven techniques allows us to work with our nuclear sector clients to develop comprehensive solutions to their waste management needs. We deliver value through a systematic and rigorous approach that ensures that challenges and opportunities are identified and addressed.



Our Track Record

Entec's waste management services at nuclear sites continues to grow. Our capabilities to deliver support are demonstrated by the following projects:

Project Title/Client	Project Description
Waste Management Systems at Dounreay UKAEA	Entec is providing specialist support to the development and implementation of new waste arrangements. We are also undertaking peer review and audit of the new systems. We will also be involved in the preparation and delivery of training for all staff with waste responsibilities to introduce new waste practices and IT systems.
Review of Clean & Exempt Waste at Dounreay UKAEA	Entec determined the scope of work required to develop practices that would improve the efficiency and effectiveness of waste management at Dounreay. We were also asked to consider arrangements for the management and disposal of non-radioactive wastes and those radioactive wastes that are subject to the SOLA Exemption Order.
Waste Stream Development UKAEA	Entec provided a comprehensive review of the systems and arrangements developed to clean and exempt wastes at Dounreay. We examined both the suitability of procedures and their application in operational plants. Our findings supported UKAEA's programme to integrate waste management activities at Dounreay.
Landfill 42 Closure at Dounreay UKAEA	Entec is examining the history of the site and exploring site closure. We have undertaken the risk assessment to support this process. We are providing advice to UKAEA throughout the regulatory engagement process that will culminate in the agreement of a closure plan between UKAEA and SEPA.
Ballaghadereen Landfill Engineering Roscommon Co. Council	Entec has provided consultancy advice in respect of the development and operation of the landfill. The work undertaken has included design of lined landfill cells, surface water and leachate/gas management systems, and capping and landscaping/ restoration features. During site development Entec has provided CQA services.
Waste Logistics Study Broadland District Council	Entec and our partners, Webaspx, modelled the refuse and recycling rounds on the study, excluding the chargeable garden waste service and a potential food waste service. We delivered the study within the challenging timescale by the innovative use of existing and bespoke data tools.
Waste Procurement Rotherham Metropolitan Borough Council	Entec provided technical support for a municipal waste treatment and disposal feasibility study. The preliminary work included the modelling of waste growth and recycling potential and consequently the anticipated mass of residual waste requiring treatment. Data from these models will be provided to the financial consultants to complete the financial evaluation of the disposal options.

Our Core Team

Team Member	Expertise and Experience
Matthew Keep Radwaste Management	Matthew has over 13 years experience gained in nuclear operations, environmental regulation and consultancy. Leads delivery of nuclear compliance projects. Extensive knowledge of radwaste policy, legislation and associated practices.
Ian Warby Landfill Engineering	Ian has 25 years in waste management, including 10 years within a regulatory background. He has undertaken numerous site assessments for potential landfill capacity and landfill development feasibility studies.
Keith Lawton Environmental Management	Keith has developed broad experience of waste management and environmental management systems at nuclear premises from 8 years working in environmental regulation and environmental compliance at Sellafield.
Stephen Penny Waste Procurement	Stephen is a waste specialist with a wide breadth of experience and proven track record within the waste management sector. He has worked extensively on contract procurement including the development of procurement strategy, service specification and technical evaluation.
Linda Ovens Waste Management	Linda specialises in the development and implementation of waste strategy and tactics in the UK. She has detailed knowledge of waste management legislation and practice from 14 years experience in waste management industry and waste-related consultancy.

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