Detailed guide: Waste Practitioner Support and Guidance

Updated: New report added: Management of Waste Failing the Discreet Item Limit (April 2018)

Glossary of key terms

<u>Glossary of key terms and acronyms in the UK civil nuclear industry produced</u> <u>by Burges Salmon</u>

Legislation

Guidance on UK Low Level Waste Management Legislation

Introduces UK Government policy and strategy along with legislation relating to solid LLW management.

Waste treatment and disposal routes

Accessing LLWR Waste Services Guidance

Provides an overview of the waste treatment, disposal and support services available through LLW Repository Ltd.

Map of the UK nuclear industry and LLW management facilities

Shows the locations of organisations providing treatment and disposal services accessible through LLWR.

Actuals versus forecast data

NWP/REP/124 Actuals Vs Forecast Data

Provides a summary of actual versus forecast waste diversion and disposal for FY2013/14, 2014/15 and 2015/16. It compares actuals (as reported in the Waste Metric Dashboards) against forecasts from the UK Radioactive Waste Inventory 2013, the Waste Inventory Form 2013-2015 and the Joint Waste Management Plans for those years.

Waste Hierarchy

A Good Practice Guide on the Waste Hierarchy

The application of the Waste Hierarchy is mandated by UK policy and environmental regulation; and is central to the delivery of the national LLW Strategy. It is recognised as good practice in all aspects of radioactive and non-radioactive waste management, and is an essential consideration for determining Best Available Technique.

Best Available Technique (BAT) / Best Practicable Means (BPM) resources and studies

Strategic BAT — this series of national strategic level optioneering studies provides guidance and technical underpinning for waste producers to inform their own local BAT / BPM assessments.

National Strategic BAT for organic LLW

National Strategic BAT for LLW metals

National Strategic BAT for Soil, Concrete, Rubble, and Granular Material LLW

LLW Asbestos and Asbestos Containing Waste: Gate B (Preferred Options) Study Report

BAT Resource Guide

Provides information to waste producers and other stakeholders on sources of information that could be used when undertaking a BAT/BPM assessment.

Nuclear industry code of practice (NiCoP) on the BAT

Presents the principles, processes and practices that should be used when identifying and implementing BAT for the management of radioactive waste.

Carbon Emissions Assessment: Low Level Waste Routes

A carbon footprint assessment has been completed for waste treatment and disposal routes for LLW available through LLW Repository Ltd's Waste Services Framework.

Discrete Items

Discrete Item Decision Summaries

A library of LLW Repository Ltd decisions on whether particular items of waste are Discrete Items or Non Discrete Items. The decision summaries are intended to help waste producers decide whether or not waste items they propose to consign to the Repository, should be recorded as Discrete Items on the LLWR Waste Consignment Information Form.

Project Waste Management Plans

<u>Guidance on Project Waste Management Plans (PWMPs)</u>

Guidance on how to use PWMPs and the benefits that result. A PWMP is a tool to aid waste management planning and communications between waste generating teams and waste management personnel. The use of PWMPs is considered best

practice.

Project Waste Management Plan (PWMP) Template

An editable, blank template can be directly adopted by waste producers, adapted to form a site-specific PWMP, or used to improve an organisation's existing processes where PWMPs are already in use.

Waste informed decommissioning

Waste Informed Decommissioning Model

Provides information and guidance on how waste informed decommissioning can be planned and executed in the nuclear industry. Waste informed decommissioning is a method of delivering decommissioning to ensure that the optimum decommissioning and waste management outcomes are achieved.

Boundary waste

Cross Boundary Waste Decision Making Guidance

Provides guidance on decision making for management of wastes close to the LLW and ILW (Intermediate Level Waste) categorisation boundary.

Management of LLW and ILW/LLW Cross Boundary Pond Furniture

Provides strategic guidance on the UK-wide inventory of pond furniture and the current and credible near-term approaches for managing LLW and ILW/LLW cross boundary pond furniture. Pond furniture is the metallic architecture used for the storage and handling of irradiated fuel in cooling ponds, which has been or is being stored under water.

On-site decay storage principles

<u>On-site Decay Storage Principles: Issue 1</u>

Aims to help waste producers in their decision making regarding the suitability of on-site decay storage for radioactive waste being managed. Four high-level principles have been developed along with a set of considerations that underpin the principles. These considerations clarify what the principles mean in practice by mapping out what a waste producer needs to consider before, during and after the decay storage period, addressing the full waste management lifecycle.

Managing the non-radiological properties of radioactive waste

Introductory guidance on the managing the non-radiological properties of radioactive waste

Designed to raise awareness on how to manage the non-radiological properties

of radioactive waste consignments being diverted from disposal at the Low Level Waste Repository. Information on these properties may be requested by transport providers, landfill sites that accept Very Low Level Waste or Low Level Waste treatment facilities. The guidance document is split into 4 sections; sections 1-3 contain information on the regulation and management of non-radioactive waste; whilst section 4 introduces the 7 step process for classifying and coding non-radioactive waste, according to the Waste Framework Directive.

In addition to this guidance there is an <u>NWP eLearning module available.</u>

Waste classification

International Approaches to Radioactive Waste Classification

A comparative review of eleven approaches to radioactive waste classification: the model currently in use in the UK, those recommended by the International Atomic Energy Agency and the European Commission, and a further eight in use or being developed by other countries (Belgium, Finland, France, Japan, Spain, Sweden, Switzerland and the US).

Problematic wastes

Whilst waste treatment and disposal routes are relatively well established for the majority of the UK LLW inventory, there is a population of wastes (known as problematic or orphan wastes) for which there are no identified or available treatment and disposal routes. Identifying these wastes and implementing waste management solutions supports effective decommissioning. Studies have been undertaken to identify the inventory of problematic LLW in the UK and to identify potential waste management solutions for some high priority wastes.

LLW Problematic Waste Technology Optioneering Summary Report

This document provides a summary of a technology mapping study undertaken in FY14/15 for the priority wastestreams identified from the problematic waste inventory compiled that year — contaminated oils and oil contaminated materials; inorganic and organic ion exchange resins; radium; and surface contaminated items.

Management of Contaminated Oils Feasibility Study

Analyses the inventory of non-incinerable oils, provides an introduction to each of the 21 potential treatment technologies identified by the study and provides an assessment of the eight most promising technologies.

LAW Problematic Waste Summary FY 2015/16

Provides a summary of the Lower Activity Waste (LAW) problematic waste inventory collected from waste producers over FY 15/16. It includes information on the volumes of waste, type of waste for high volume groups and reasoning for problematic status. <u>Management of Waste Failing the Discrete Item Limit: Feasibility Study</u> <u>December 2016</u>

<u>Management of Waste Failing the Discrete Item Limit: Feasibility Study April</u> 2018

Identifies a list of credible options that might be used for the effective management of waste failing the Discrete Item limit; as laid out in the LLW Repository Ltd Waste Acceptance Criteria. It covers three main waste groups: metals with simple geometries, metals with complex geometries; and cemented drums.

Problematic Waste Integrated Project Team

In order to support delivery of the NDA's 2016 Strategy, a Problematic Waste Integrated Project Team (IPT) was established in May 2016. Its objective is to develop a co-ordinated and improved approach to the industry-wide management of problematic radioactive waste. The IPT is being led by LLW Repository Ltd and RWM on behalf of the NDA and includes engagement with a range of stakeholders.

Scope of the Problematic Waste Integrated Project Team

Provides a one page summary of the scope of the Problematic Waste Integrated Project Team, including its objectives, the work conducted to date and outputs. Contact details for obtaining further information are also provided.

Summary of Previous Work on Problematic Waste

Summarises existing work on problematic waste, both in the UK and overseas, and provides sign-posting to additional information on treatment processes and technologies for specific problematic waste types.

Inventory Data Analysis and Prioritisation Calendar Summary

Provides a high-level summary of a project undertaken in FY16/17 to analyse the 2016 problematic waste inventory and to consolidate it into a tool to support the IPT/Community of Practice in work programme prioritisation decisions.

<u>Problematic Waste Management Case Study: Treatment and Disposal of ILW</u> <u>Dessicant</u>

Provides a short case study on the management of ILW desiccant using a washing process, followed by incineration.

<u>Problematic Waste Management Case Study – Treatment and Disposal of High</u> <u>Activity Oils</u>

Provides a brief case study on the management of high activity oil waste using an acid washing process followed by incineration.

Problematic Waste Inventory Summary

Provides a high-level summary of the problematic waste inventory within the UK nuclear industry as collected in 2016.

Other available resources

LLWR Environmental Safety Case & Permit

LLWR Waste Services

LLWR offers customers a range of services to safely manage their low level waste in accordance with the Waste Hierarchy through the Waste Services Contract; information and resources are available to enable customers to consign waste through the supplier frameworks, including acceptance criteria, forms & templates, as well as customer notices.

NDA-estate Joint Waste Management Plans (JWMPs)

Waste Metric Dashboard

UK Radioactive Waste & Materials Inventory (UKRWI)

LLWR and the NDA work together to collate comprehensive and up-to-date information covering waste stream inventory, treatment, packaging and disposition data for LLW and ILW.

Peer Review & Peer Assist programme and reports

Peer Reviews and Peer Assists are undertaken with waste producers to identify good LLW management practices and opportunities for improvement.

National Waste Programme Training

Low level waste management classroom training and e-learning (available free of charge).

Contact

National Waste Programme

LLW Repository Ltd Pelham House

Pelham Drive Calderbridge Cumbria CA20 1DB

Email nwp@llwrsite.com

Telephone

019467 22740