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

<u>News story: Journée de souvenir dédiée</u> à toutes les victimes de la guerre <u>chimique</u>

Chaque année, la communauté internationale s'interrompt le 29 avril pour se souvenir des victimes des guerres chimiques. L'ONU promeut une prise de conscience internationale et appelle à agir contre ces armes horribles qui frappent insidieusement et sans discrimination, causant la mort et des blessures terribles à des gens qui n'ont aucun moyen de se défendre.

Cette année sera d'autant plus poignante car les images de l'attaque chimique de Khan Sheikhoun en Syrie sont encore dans nos mémoires. Malheureusement, nous avons déjà vécu cela et ces attaques ne font que souligner la souffrance que le peuple syrien endure depuis trop longtemps.

Mise en œuvre le 29 Avril 1997, la Convention sur les Armes Chimiques a aujourd'hui 20 ans. Cette convention rend illégal la production, le stockage et l'usage d'armes chimiques. Depuis 2005, les Nations Unies ont choisi cette date pour donner l'occasion aux peuples, à travers le monde, de rendre hommage aux victimes de la guerre chimique et de pouvoir exprimer leur soutien à l'Organisation pour l'Interdiction des Armes Chimiques (OIAC). C'est aussi l'occasion pour le monde de s'unir afin de condamner l'usage des armes chimiques n'importe quand, n'importe où et par n'importe qui.

L'OIAC a commencé, à juste titre, le processus visant à lancer une enquête indépendante autour des évènements de Khan Sheikhoun. Le Directeur Général a déjà souligné dans un rapport que les premiers résultats de leurs analyses indiquent bien une exposition au gaz sarin ou à une substance similaire.

Ces résultats sont cohérents avec l'évaluation publiée par la France le 26 avril, ainsi qu'avec notre propre étude d'échantillons des victimes et de l'environnement immédiat par des scientifiques britanniques. En effet, les États-Unis, le Royaume-Uni, la France et la Turquie ont tous testé leurs propres échantillons indépendamment et ont conclu que le gaz sarin avait bien été utilisé.

Comme l'a déclaré le Ministre des Affaires étrangères Boris Johnson, « de part la présence de fragments d'obus dans le cratère, nous savons que, non seulement du gaz sarin a été utilisé, mais que ce gaz porte la signature des armes chimiques utilisées par le régime d'Assad. L'étude des échantillons prélevés sur les victimes démontre qu'elles ont indéniablement été exposées au gaz sarin. Il n'y a donc qu'une conclusion à tirer : le régime d'Assad a utilisé des armes chimiques de manière quasiment certaine contre son propre peuple, en violation du droit international et des règles de la guerre. »

Le peuple syrien devrait être protégé par son gouvernement ; les enfants syriens devraient grandir en sécurité et en bonne santé. Au lieu de cela, ce sont les victimes innocentes d'un conflit qui entrainé des souffrances indicibles, la mort et des déplacements de populations forcés.

Nous sommes clairs sur le fait qu'une solution politique — plutôt qu'une solution militaire — est nécessaire pour mettre fin à cette guerre. Le Royaume-Uni continue de soutenir le processus politique mené par les Nations Unies et la transition vers un nouveau gouvernement syrien qui apportera paix et stabilité de manière durable. Nous travaillons également à soulager la souffrance du peuple syrien. A ce titre, le gouvernement britannique a engagé 2,46 milliards de livres sterling depuis 2012, ce qui constitue l'aide la plus importante jamais apportée par notre pays à une crise humanitaire, et qui fait de nous le second plus large donateur bilatéral en matière humanitaire en ce qui concerne la crise syrienne.

Ainsi, en cette 'Journée du souvenir dédiée à toutes les victimes des guerres chimiques' organisée par les Nations Unies, rendons hommage au peuple de Khan Sheikhoun, ainsi qu'à tous les hommes, les femmes et les enfants innocents qui ont perdu la vie au cours des six dernières années dans ce conflit terrible en Syrie. La communauté internationale doit rappeler fermement que l'usage d'armes chimiques est inacceptable. Le Royaume-Uni et la France sont à l'avant-garde de cet effort. C'est uniquement en travaillant ensemble à ce que les responsables subissent les conséquences de leurs actes que la communauté internationale parviendra à empêcher que ces atrocités se reproduisent.

<u>Speech: Foreign Secretary statement at</u> <u>the UNSC meeting on North Korea</u>

Thank You Mr President.

The United Nations Charter defines the supreme task of this Council as the maintenance of peace and international security. There could hardly be a clearer threat to world peace, more demanding of a unified response, than the activities of one member of the United Nations, North Korea, breaking its Treaty obligations, ignoring the will of this Council, and making blood-curdling threats to inflict grievous harm on peoples of other countries. For decades, North Korea has doggedly pursued the means to act on these threats.

In a nation whose entire GDP is about \$25 billion and where its people have over recent decades been exposed to terrible suffering, reduced to eating leaves and the bark of trees. The Pyongyang regime has devoted its energies to developing nuclear weapons and the missiles to convey them. Last year alone, North Korea tested two nuclear devices and more than 24 ballistic missiles. This year, we have witnessed more missile tests and I remind the Council that every one of those tests breaks seven UN Resolutions, stretching back to Resolution 1695, passed unanimously in 2006.

So we should reject, I am afraid, we should reject any claims of moral equivalence between North Korea's actions and the defensive and precautionary measures of other nations. The second, the latter, are legitimate; the first are not and, in spite of the strenuous efforts of some to obscure that distinction, that distinction cannot be ignored or elided.

So the United Kingdom believes it is vital for this Council to stand ready to take further significant measures to bring about a peaceful resolution. And sooner or later, the North Korean leadership must realise that their isolation not only holds back their own people – if the regime really cares about their own people – but also weakens their own grip on power.

This Council must be united in its demand that the present course cannot continue and Britain is proud today to have joined its allies to lead the enforcement of sanctions and seek a peaceful solution. We urge other partners with direct influence on North Korea to use their leverage to the full, with the aim of easing tensions and ensuring compliance with the expressed will of the UN.

There is a vital role for China and Russia, both of whom are neighbours of North Korea with influence on Pyongyang and, as permanent members of this Council. Special responsibility they have for preserving international peace and security. The UK calls on Russia and China and other Member States to use whatever influence they possess to restrain North Korea and guide its leaders towards a peaceful settlement.

Last year, this Council decided to toughen sanctions on North Korea, including by restricting the regime's access to foreign currency. But the UN Panel of Experts has shown that not every Member State is fully enforcing those Resolutions. Most members of the UN have yet to obey the requirement in Resolution 2270 to submit a national report on their implementation of sanctions.

The UK believes that all member states should re-affirm their commitment to enforcing UN sanctions against North Korea. But, we also have no doubt that negotiations must, at some point, form part of the solution. But first, it is reasonable to expect North Korea to make verifiable progress towards meeting its obligations to denuclearise the Korean Peninsula. For as long as Pyongyang continues to defy this Council, the conditions will not be helpful for resuming the Six Party Talks – or negotiations in any other format.

While the most pressing threat is North Korea's ballistic missile and nuclear ambitions, we must never forget the horrifying abuse the regime metes out to its own people, as documented in the UN Commission of Inquiry in 2014. This Council has discussed human rights in North Korea on previous occasions – and there should be no reticence about doing so. The UK fully supports the work of the UN Special Rapporteur on Human Rights in North Korea and the Office of the High Commissioner for Human Rights both of whom perform the crucial task of investigating and recording these violations.

Britain stands alongside our allies in making clear that North Korea must obey the UN and halt its nuclear weapons and ballistic missile programmes, disarming in a complete, verifiable and irreversible manner. Only then can this Council be assured of the peace and security of the region — and only then can the people of North Korea have the chance of a better future.

Thank you.

<u>Speech: PM statement following talks</u> with Japanese Prime Minister Abe: 28 <u>April 2017</u>

The United Kingdom's relationship with Japan is vital to our prosperity and security.

And the fact that Prime Minister Abe is the first world leader I have hosted at Chequers underlines that fact. And it gives me great pleasure to welcome him here today.

With both of our nations facing a range of global challenges, we have discussed ways in which we can deepen our strong and vital partnership.

Today we have reaffirmed our commitment to work together to support the rules-based international system and the promotion of free trade and democratic values.

Throughout our talks, I have been clear that this is not the time for the UK to step back from the world but rather to step up, and continue to stand tall alongside our friends and allies.

Brexit/trade

During our discussions, I updated Prime Minister Abe on our preparations for Brexit and reiterated our determination to make sure the UK remains the best place in Europe to run and grow a business, whether it's one operating at home or abroad.

And we are building from a position of strength.

Japanese companies have already invested a total of more than £40 billion in the UK. The UK is the second most popular destination for Japanese investment after the US.

And around 1,000 Japanese companies including Honda, Hitachi and Mitsubishi employ 140,000 people in the UK.

Since the vote for Brexit, Japanese businesses have continued to show confidence in the UK, with Japan's Softbank making a record £24 billion purchase of ARM Holdings and committing to double the number of jobs.

Nissan announcing that they will build the new Qashqai model at their plant in Sunderland, and Toyota committing to a £240 million investment at its plant in Derby.

It is clear that our strong economy, high level of skills, and low levels of taxation continue to make Britain an attractive destination for investment.

In our talks today, I have reaffirmed the UK's desire for an enduring deep and special partnership with the EU, including a bold and ambitious free trade agreement which gives British companies the maximum freedom to trade with and operate within European markets – and allows European businesses to do the same in Britain.

G7

We remain a global, outward-facing Britain, and the UK and Japan co-operate closely on the international stage, including in the G7.

This is a vital grouping, through which countries with shared views on free trade, democratic values and the importance of the rules-based international system can work to create societies and economies that work for everyone.

And I would like to congratulate Prime Minister Abe on Japan's recent successful presidency, which saw significant progress.

This May the G7 will meet again, in Italy, and today Prime Minister Abe and I discussed our priorities for the summit.

We will once again push to lower barriers to trade and create economies that share the benefits of globalisation across our 2 countries.

And on migration we agreed that we need an international approach that is in the interests of all those involved, and that protects men, women and children from trafficking, sexual violence and labour exploitation.

Global issues

In an uncertain world, unity among friends and allies is more vital than ever. And Japan is our closest Asian security partner.

Last year RAF Typhoons took part in exercises in Japan, the first time that a country other than the US had done so, while Japanese troops exercised in the UK for the first time ever.

But our strong and well-equipped military is just one of the tools at our

disposal.

In our discussions today we agreed that we should continue to stand firm in the face of destabilising Russian activity, whether in Ukraine or Syria.

And that one of the ways to do this is through economic pressure including the use of sanctions.

We are clear that these sanctions must remain in place until the full implementation of the Minsk Agreement.

We have also highlighted our opposition to any actions on the South and East China Seas likely to increase tension. Stability in this region is of global concern and we encourage all parties to resolve their disputes peacefully and in accordance with international law.

As we meet today, North Korea continues to take provocative action in the Asia-Pacific region. And the United Nations Security Council is meeting to discuss this very issue.

In the face of this belligerence we stand steadfast in our condemnation of such destabilising activity.

Their nuclear and missile tests are a violation of United Nations Security Council resolutions and international obligations, and a risk to global peace and stability.

Prime Minister Abe and I have agreed that we will continue to work with our international partners to maintain pressure on North Korea and counter the security threat posed by its illegal pursuit of nuclear weapons and work towards a peaceful solution.

Conclusion

On all of these issues, Prime Minister Abe and I have agreed that the UK and Japan should work closely together for the benefit of both our great nations, standing shoulder-to-shoulder in the face of our shared challenges, promoting our shared values, and looking positively to the shared opportunities that the future will bring.

<u>News story: Vaccination for Meningitis</u> <u>B at University of Surrey</u>

Public Health England (PHE) is working closely with NHS partners following 3 confirmed cases of meningitis among students at the University of Surrey.

Sadly one of the students died while travelling home from a sports club tour to Italy. Passengers from the coach in which the student travelled were offered antibiotics as a precautionary measure. The other 2 students are recovering well after receiving appropriate treatment.

Detailed analysis of the bacteria that caused the disease in 2 of the students confirms that the cases were due to meningococcal group B (MenB) infection. PHE is arranging for all full-time undergraduate students who live in University of Surrey halls of residence to be vaccinated against MenB.

The University has written to students and staff advising them of the planned action and highlighting signs and symptoms of meningitis along with advice on what to do if they suspect they are infected.

The wider population in the town and non-students who visit but do not live on the university site are not considered within the at risk group because the higher risk is associated with the lifestyle of an undergraduate student, rather than simply being on campus.

Dr Peter English, Consultant in Communicable Disease Control, PHE South East of England said:

Meningococcal infection is comparatively rare and the risk of transmission is relatively low. People who have prolonged, close contact with an ill person are at a slightly increased risk of becoming unwell in the following days. This is why immediate contacts of the cases have already been offered antibiotics as a precautionary measure.

After considering the medical evidence, we have decided to offer vaccination to around 4,200 students living in halls of residence at the university to reduce risk of further cases next term.

I would like to reassure other students, teachers, their families and the local community that the risk of catching this infection remains very low, and any higher risk is confined to those being offered the vaccine.

I would still urge everyone to be aware of the symptoms of both meningitis and septicaemia (blood poisoning).

I would also remind students to check their eligibility for the MenACWY vaccine with their GP. This vaccine protects against a number of different strains of meningococcal infection.

PHE is encouraging students to share awareness and care for one another. Don't assume an illness is a hangover or a touch of flu. Learn the symptoms of <u>meningitis</u> and <u>septicaemia</u> and if you think a friend or housemate is ill then check on them regularly and if you are worried seek medical help.