Office for Nuclear Regulation Response to the Report on the National Integrated Waste Strategy Shaping Event on 19th January 2011 at the Stanneylands Hotel, nr Manchester
Executive Summary

For many years, the regulators, have actively worked towards the integrated management of radioactive waste on nuclear sites via the development and use of integrated waste strategies. In 2010, sufficient information had been gathered to justify holding a significant regulator led National IWS Shaping Event.

Following the event, a factual report was issued recording the day and output. This brief document is ONR’s views on those outputs and our actions, immediate and intended, subsequent to the event.

Summarising that response:

The main actions resulting from the event were:

- For National IWS, secure a national leader.
- For site-specific IWS, revise the existing NDA guidance and adopt for the whole industry.

ONR considers that the first action is a recognition that there is no single producer for radioactive waste within the UK and thus to deliver optimal waste management nationally a national locus or coordinated multiple loci are essential.

The second action reflects the individuality that is evident within the current IWSs and that, in terms of better regulation and delivering information to assist national waste management, improved guidance is required.

ONR has contributed to the progress on these actions by:

- Assisting NDA to lay down a programme to deliver the second action and contributing to that guidance, initially via the outputs gathered from the event.

Within this document are ONR’s Views of the Outcomes of the Event in the areas of:

- General Observations
- Momentum on IWSs
- Revising the NDA IWS guidance
- IWS Maturity
- Reviewing IWSs
- Decision making methodology
- National IWS
- Sustainable (National) IWS

Way Forward for ONR

ONR considers that it can assist and support the outputs and actions of the events by:

- Delivering an assessment guide for IWS.
- Encouraging and informing the process for the appointment of an IWS national lead or locus.
- Actively engaging (and assisting the NDA) in delivering a new shaped guidance that is inclusive of waste managers in the non-NDA sector.
- Seeking to influence international sectors in sharing their good practice as well as challenging or adopting the UK approach.
- Seeking to be clearer in the goals / expectations for IWS and to influence Dutyholders to have a core aim to deliver better than the goals where possible.
Introduction

For many years, the regulators, Office for Nuclear Regulation (ONR), Environment Agency (EA) and Scottish Environmental Protection Agency (SEPA), have actively worked towards the integrated management of radioactive waste on nuclear sites via the development and use of integrated waste strategies.

In 2006, the NDA introduced a contractual requirement and specification on integrated waste strategies for NDA sites. This specification had accompanying guidance that had significant input from the regulators. Some commercial operators outside the NDA estate also adopted the guidance in order to deliver regulatory compliance within radioactive waste management and to assist their business needs.

The regulators, and particularly ONR, carried out regular reviews of a number of site’s annual Integrated Waste Strategy (IWS). These reviews were conducted against regulatory expectations and sought to gather sufficient understanding to identify good practice and potential improvements as well as compliance shortfalls.

More recently, work on European directives and the desire within the UK to minimise waste arisings and disposals have emphasised the importance of a national integrated waste strategy and plan.

In 2010, sufficient information had been gathered to justify holding a significant regulator led National IWS Shaping Event. The aims of the event were to discuss:

- Why the UK needs to demonstrate how it is managing its radioactive waste in an integrated way, and how that cascades down through government to licensees and regulators.
- The results/outcomes of early reviews by the regulators of existing site-specific IWSs.
- Initial research results on the experiences of IWS from the perspective of IWS Writers.
- Areas where IWS can be shaped/improved through the sharing of good practice and the identification of industry needs.
- What support Licensees need to further IWSs in their organisation.

The regulators recognised that these last two aims were specifically of interest to Licensees’ senior management as there is a cost in IWS and the importance in delivering it cost effectively means right first time processes. Consequently, both Site Licence Company Executive Leads and selected (IWS) deliverers were invited to participate.

The event was designed to have the following values: -

Value to Licensees

- Improved good practice IWS delivered in a cost beneficial way.
- Minimising waste management and disposal costs.
- Improved safety and minimised environmental challenge.

Value to regulators

- Clear and transparent statements of optimised waste management on nuclear sites that minimises accumulations and environmental detriment associated with disposals.
- The delivery of good practice radioactive waste management that is owned and delivered by the managers of nuclear materials.
Value to United Kingdom

- Progress towards a Waste Management Plan that demonstrates to the European Commission a clear and transparent picture of how radioactive wastes are dealt with sustainably within the UK.
- Effective prediction of sustainable radioactive waste disposal capacity needs within the UK.

The event was held on 19th January 2011 and included presentations from DECC on the international significance of IWS and from the NDA on the national significance in delivering waste management solutions for the nuclear industry. The results of early reviews by the regulators of existing IWSs and the outcomes of that review process were presented as well as the experience of the operators in delivering and implementing them.

Throughout the event, good practice, aspirations, concerns and general feedback were captured from all those present. Areas were identified where IWS can be shaped and improved and, as an end result, how individual IWSs might inform a National Integrated Waste Strategy and Plan that uses licensees and regulators’ resources to best effect.

**Main Actions from the Event**

The main actions resulting from the event were:

- For National IWS, secure a national leader.
- For site-specific IWS, revise the existing NDA guidance and adopt for the whole industry.

ONR considers that the first action is a recognition that there is no single producer for radioactive waste within the UK and thus to deliver optimal waste management nationally a national locus or coordinated multiple loci are essential.

The second action reflects the individuality that is evident within the current IWSs and that, in terms of better regulation and delivering information to assist national waste management, improved guidance is required.

ONR has contributed to the progress on these actions by:

- Assisting NDA to lay down a programme to deliver the second action and contributing to that guidance, initially via the outputs gathered from the event.

**ONR’s Views of the Outcomes of the Event**

General Observations:

- The attendance of all the organisations that were invited (excluding DECC), In total, 38 people from 21 organisations, demonstrated the importance and interest in IWS within the industry.
- DECC, although unable to attend, were represented via a written brief.
- The event met its stated aims
- Feedback from attendees was excellent and suggested that ‘overall, this was a useful event’.

Momentum on IWSs:

- The number of commitments made by attendees (over 60) to pursue actions as a result of the day is an expression of their enthusiasm for continuing what had been started – both through the co-development of a National IWS strategy and the revision of the NDA IWS guidance.
- The acknowledgements in the closing speeches from the co-sponsor (EA) and others of ONR’s work indicated that the ONR decision to hold the event was justified.
Revising the NDA IWS guidance:

- The IWS guidance is no longer fit-for-purpose for future needs and there is a need to agree the scope and terms of reference for next generation IWS guidance as well as a programme and stakeholders for its delivery.
- ONR currently consider that the NDA should retain ownership of IWS guidance as it is the owner of both a large component of the UK’s radioactive waste and of the main disposal sites.
- As a supporter of consistent, transparent and coherent regulation, that does not impose undue burden on the Dutyholder, ONR is committed to joint regulatory involvement in production of the guidance for IWS as well as the inclusion of the opinions of those Dutyholders.

IWS Maturity:

- The event demonstrated that IWSs are relatively immature in the UK nuclear industry in comparison to nuclear safety cases.
- Linked to this immaturity is the lack of clarity on what should be in an IWS that delivers for all stakeholders (Regulators, NDA, Dutyholders, etc).
- In addition this opportunity for IWS evolution could be used to consolidate existing guidance and other documents e.g. Radioactive Waste Management Case, Environmental Case, Decommissioning Waste Management Plan, safety case, Best Available Technology.

Reviewing IWSs:

- ONR has developed a momentum on reviewing IWS and evaluating them against regulatory drivers. ONR recognises the support received from the event for a continuation of their review process and the benefits it has delivered for Dutyholders to date.
- ONR considers a key difficulty in the IWS process to be the setting of a good practice benchmark that Dutyholders might use to develop the goals for their strategies.
- It considers that existing IWSs and the guidance for the next generation would be strengthened by sharing the results of the reviews with those Dutyholders as well as the evaluation tool.
- An important phase of IWS evaluation is inspection of the implementation of IWS on a site. This has yet to be rolled out in ONR methodologies but will be part of the regulators forward plans.
- Assessment of IWS, inspection related to its implementation and assistance with the development of guidance all present resource challenges for the ONR and we will need to consider ways to ease that resource challenge.
- ONR recognises that implementation of good practice optimal IWS may impact on the pace of decommissioning but that slowing of the rates of production in source areas may deliver significant value in reductions of accumulations as well as the more effective use of disposal routes.

Decision making methodology:

- ONR have a momentum on developing decision-making methodology to support IWS. Work has been ongoing for a number of years in providing guidance and methodologies that enhance auditability, create structured waste management thinking and link these to existing government policy.
- ONR’s methodology, WASAN, is bespoke but is not yet well known. The aim is that case studies in the coming year will illustrate (and further refine) WASAN’s analytical structures.
- In addition, ONR seek to develop jointly with the EA the use of such a methodology to assist in their focus in delivering BAT solutions for waste management within IWS.

National IWS:
ONR considers that the output of the event strongly indicates the need to have a focal point or locus to direct the delivery of a national plan. The government would ideally mandate such a locus.

This mandate would benefit from an early decision and especially if linked to the implementation schedule of the EU Directive on management of spent fuels and radioactive waste.

National objectives, resources and infrastructure are needed (and need to be aligned) to deliver a National IWS. Funding, planning, transportations and Waste Acceptance Criteria are also critical.

The golden thread of record management from source to disposal should also be facilitated via IWS.

Sustainable (National) IWS:

- Sustainability is often defined in a number of ways and has relevance where radioactive waste management is a long term and potentially generational task. The event recognised an outstanding need to understand different stakeholders’ perspectives on IWS and the need to facilitate the sharing of knowledge and good practice on IWS as well as maintain these for many years. Thus, the industry needs to consider if sufficient resources and skills are available for IWS to achieve its aims.

Way Forward for ONR

ONR considers that it can assist and support the outputs and actions of the events by:-

- Delivering an assessment guide for IWS.
- Encouraging and informing the process for the appointment of an IWS national lead or locus.
- Actively engaging (and assisting the NDA) in delivering a new shaped guidance that is inclusive of waste managers in the non-NDA sector.
- Seeking to influence international sectors in sharing their good practice as well as challenging or adopting the UK approach.
- Seeking to be clearer in the goals / expectations for IWS and to influence Dutyholders to have a core aim to deliver better than the goals where possible.