



# **Regulatory Arrangements for the Management of Higher Activity Radioactive Waste on Nuclear Licensed Sites**

*Regulatory Position Statement – 2017 Update*

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### **Executive Summary**

The regulators – the Office for Nuclear Regulation (ONR), the Scottish Environment Protection Agency (SEPA), the Environment Agency and Natural Resources Wales (NRW) – have reviewed their commitments made in the 2003 Position Statement [7.1] about working together to improve the arrangements for the management of Higher Activity Radioactive Waste (HAW) on nuclear licensed sites. This paper provides our update to the regulators' 2003 Position Statement and further enhances the efficiency and effectiveness of the arrangements for continued joint regulation. The paper should be read in conjunction with regulators' 2003 Position Statement.

Our review was carried out to ensure the continued effectiveness of our working arrangements given the changes in the nuclear sector since 2003. The regulators are committed to continuous improvement of their ways of working.

The ONR regulates the management and storage of HAW on nuclear licensed sites via the nuclear site licence granted under the Nuclear Installations Act 1965 (NIA65) [7.2]. The environment agencies regulate the disposal of HAW [7.3; 7.4]. The ONR and the environment agencies will continue to work together on HAW matters in accordance with terms set out in the existing Memoranda of Understanding (MoU) between the organisations. The ONR and the environment agencies are working together because decisions about the permissioning of operations and processes for HAW management must take into account the long-term disposability of conditioned waste, and the appropriate environment agency's regulatory requirements, alongside the nuclear safety considerations. This is essential to minimise the risk that reworking of waste packages may be necessary to ensure disposal. By ensuring that the arrangements for the packaging and storage of the HAW over its entire life-cycle are optimised, the need for reworking will be minimised, detriments to safety, security and the environment will be reduced, and this will contribute to ensuring that the waste is managed in a sustainable way.

### **1. Background**

The aims of the arrangements described in the 2003 position statement [7.1] were to ensure that HAW is managed by dutyholders in a sustainable way, taking into account environmental and safety considerations.

The regulators considered that the arrangements would provide the public, nuclear licensees, the Nuclear Decommissioning Authority (NDA) and Radioactive Waste Management Limited (RWM), with:

- Increased confidence in waste management arrangements arising from the independent examination and assessment of HAW conditioning proposals.
- Greater regulatory certainty with respect to the eventual disposability of conditioned HAW.
- Confidence that any necessary foreclosure of options had been decided in a transparent and systematic way.

- Reduced risk of conflicting regulatory requirements, through joint regulation on HAW management that takes account of the ONR's requirements regarding safety and security, and the environment agencies' requirements regarding environmental protection.

Additional benefits of the joint regulatory arrangements also include:

- Early interaction between the regulators and the stakeholders, at a time when they are committing significant resources to HAW conditioning, which will avoid wasted effort, and potential delays and costs, resulting from developing inappropriate waste management approaches.
- Continued early dialogue between dutyholders, regulators and other key stakeholders, which will reduce the regulatory risk under NIA65 [7.2], for example, for building HAW conditioning plants, and to authorisations under the Environmental Permitting Regulations (EPR2010)/ Radioactive Substances Act 1993 (RSA93) [7.3; 7.4] for disposal of waste packages.
- Clear documentation of the basis for current regulatory decisions that could inform future implementation of a waste disposal strategy.

The purpose of this updated position statement is to:

- i. Summarise improvements made since the original position statement in 2003 [7.1] (see Section 2).
- ii. Highlight other relevant changes affecting management of HAW on nuclear licensed sites (see Section 3).
- iii. Describe the review (see Section 4) and our updated position (see Section 5).

## **2. Improvements since 2003 Position Statement**

In the 2003 Position Statement [7.1], the regulators set out a joint commitment to produce guidance explaining the arrangements for the management of HAW. The first issue of the joint guidance was published in 2005, following workshops with, and input from licensees. Further updates, in response to developments in implementing long-term management and disposal of HAW, were made in 2007, 2011 and most recently in March 2015. The primary aim of these updates has been to improve the clarity and ease of use of our guidance, and to take proper account of learning from experience by the regulators and the nuclear industry.

The Joint Guidance, updated in 2015 and published by the ONR, the Environment Agency, SEPA and NRW, now consists of two documents '*Basic Principles of Radioactive Waste Management*', and '*The Management of Higher Activity Radioactive Waste on Nuclear Licenced Sites*' [7.5; 7.6]. These were published following further consultation with regulatory staff, the nuclear industry and other stakeholders.

In developing the joint guidance, other key improvements were made, for example, introducing the concept of the Radioactive Waste Management Case (RWMC). An RWMC is seen as good practice, and is considered by the regulators to be the most efficient and effective way for demonstrating the long-term safety and environmental performance of the planned management of a specific waste stream over the entirety of its lifecycle.

### 3. Changes Since 2003

Relevant changes since the 2003 position statement include:

#### **(a) Legislation and Policy**

In 2006, the UK Government's response to recommendations by the Committee for Radioactive Waste Management (CoRWM) established that deep geological disposal is the preferred route for the long term management of HAW. For England and Wales *'Managing Radioactive Waste Safely – a framework for implementing geological disposal (Cm 7386)'* (MRWS) [7.7], published in 2008, set out the Government's framework for managing higher activity radioactive waste in the long-term through geological disposal, coupled with safe and secure interim storage and on-going research and development to support its optimised implementation. This has been replaced by the 2014 White Paper, "Implementing Geological Disposal" [7.8].

The Welsh Government has adopted the policy of geological disposal for the long-term management of HAW; this is set out in the 2015 paper the *'Welsh Government Policy on the Management and Disposal of Higher Activity Waste'* [7.9].

The Scottish Government has not adopted the policy of geological disposal. It published *'Scotland's Higher Activity Radioactive Waste Policy'* in 2011 [7.10]. The policy is that long-term management of HAW should be in near-surface facilities which should be located as near to the site where the waste is produced as possible so that the need to transport the waste over long distances is minimal. In the 2011 update to the regulators' joint guidance, the ONR and SEPA confirmed their position that HAW packages conditioned in anticipation of geological disposal are also suitable for long-term management in near-surface facilities, and undertook to keep this position under review. The policy also states the need to demonstrate how facilities will be monitored and how waste or waste packages, could be retrieved. In 2016 the Scottish Government published an implementation strategy for its HAW policy [7.11].

In July 2011, the EC Directive *'Establishing a community framework for the responsible and safe management of spent fuel and radioactive waste'* was published [7.12]. The directive requires that member states establish a 'national framework' to implement appropriate arrangements for managing radioactive waste and spent fuel safely and securely, to avoid placing undue burdens on future generations, and to protect workers and the public from ionising radiation.

#### **(b) Regulatory Changes**

NRW was formed in April 2013, largely taking over the functions of the Countryside Council for Wales, Forestry Commission Wales and the Environment Agency in Wales, as well as certain Welsh Government functions. This included all environmental regulatory functions in relation to HAW.

In 2014, ONR was established as an independent statutory body under the Energy Act 2013[7.13], incorporating the Health and Safety Executive's Nuclear Installations Inspectorate responsible for regulating safety of the nuclear industry, the Office for Civil Nuclear Security and the Radioactive Materials Transport Division for the Department for Transport. MoUs between the ONR and the environment agencies have been updated and published [7.14; 7.15; 7.16].

### **(c) Industry Changes**

In 2004, the NDA was established by the Energy Act 2004 [7.17] as an executive non-departmental public body, reporting to the Department of Energy and Climate Change (DECC). The Energy Act (2004) also introduced the concept of Parent Body Organisations (PBOs) that took over the role of licensees as agents of the NDA to meet their decommissioning mission.

Nirex was established in 1982 to develop the geological disposal concept and provide HAW packaging advice to waste producers. In 2007, the functions and expertise of Nirex were formally transferred to the Radioactive Waste Management Directorate of the NDA. In 2014, RWM was established as a wholly owned subsidiary of the NDA, responsible for implementing geological disposal of HAW in England and Wales, and for providing HAW packaging advice to waste producers in the UK.

## **4. Review of Arrangements**

Given the changes within the nuclear industry and regulatory progress since the 2003 position statement [7.1], the regulators recently carried out a review to establish whether the current arrangements remain the most efficient and effective way to regulate HAW.

This review concluded that the current working arrangements remain fit for purpose, but that some updating of the 2003 position was necessary.

## **5. Updated Regulatory Position**

The regulators will maintain their joint regulation of HAW as set out in the 2003 position statement. The ONR and the Agencies will work jointly in accordance with existing MoUs [7.1; 7.15; 7.16]. In the case of proposals to condition HAW, the appropriate environment agency will regulate both the eventual disposability of the proposed waste package, and the nearer term environmental impacts of packaging the HAW. The ONR and the environment agencies are working together because decisions about the permissioning of HAW management must take into account the long-term disposability of conditioned waste, and the appropriate environment agency's regulatory requirements, alongside the nuclear safety considerations. This is essential to minimise the risk that reworking of waste packages may be necessary to ensure disposal. By ensuring that the arrangements for the packaging and storage of the HAW over its entire life-cycle are optimised, the need for reworking will be minimised, detriments to safety and the environment will be reduced, and this will contribute to ensuring that the waste is managed in a sustainable way.

This will be achieved by the ONR ensuring that HAW is managed safely and securely by the dutyholder in such a way that is appropriate for storage and eventual disposal; and the environment agencies ensuring that the resulting waste packages are suitable for disposal, with environmental protection considered. The regulators' working arrangements will have the flexibility to accommodate changes to legislation and policy, development and availability of any HAW disposal facilities and RWM's process of disposability assessment and associated provision of packaging advice.

Other areas of co-operation between ONR and the environment agencies are unaffected, for example, see MoUs [7.14; 7.15; 7.16]. ONR, Environment Agency and NRW will continue to work together to assess the development of a geological disposal facility and provide advice

to RWM. This work is undertaken separately, but in parallel, to the regulation of licensees' HAW management.

## 6. Financial Implications

The environment agencies will charge licensees directly for their work through the provisions in the environmental permits and authorisations.

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