

**RESPONSE FROM THE COMMITTEE ON
RADIOACTIVE WASTE MANAGEMENT TO THE
SCOTTISH GOVERNMENT CONSULTATION ON
SCOTLAND'S HIGHER ACTIVITY RADIOACTIVE
WASTE POLICY**

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Disclaimer

This presentation gives the personal view of the speaker and should not be seen as the authorised position of any third party unless that is specifically stated.

CoRWM's Terms of Reference

- *“Provide independent scrutiny and advice to UK Government and devolved administration Ministers on the long-term management, including storage and disposal, of radioactive waste. CoRWM’s primary task is to provide independent scrutiny on the Government’s and Nuclear Decommissioning Authority (NDA) proposals, plans and programmes to deliver geological disposal, together with robust interim storage, as the long-term management option for the UK’s higher activity wastes.”*

Aims of Scottish HAW Policy

- *Ensure that all activities for the treatment, storage and disposal of the Waste are made in a way that protects the health and interests of people and the integrity of the environment at the time treatment, storage or disposal is undertaken, and in the future and recognises the risk of foreclosing future options.*
- *Ensure that activities to manage the Waste are undertaken in a way that inspires public and stakeholder confidence.*
- *Ensure that decisions on the management of the waste take account of cost and affordability”.*

The CoRWM Scrutiny Process

- Scrutinising the development of the consultation proposals.
- Meeting a range of stakeholders to learn their views on the Scottish Government's proposals (Industry, Regulators and NGOs).
- Debate at CoRWM Feb 2010 plenary meeting.
- Responding to the consultation.
- Observing follow up to the consultation and formulation of final policy.
- Scrutinising the process whereby the SG drew up and adopted its proposals.

The Policy

- *“Support long-term near surface, near site storage and disposal facilities so that the Waste is monitorable and retrievable and the need for transporting it over long distances is minimal.”*

“Have we explained what waste we have in Scotland and how it is managed?”

- The information provided in the CD is useful but insufficient.
- Data on the radioactivity levels of waste should be provided in addition to data on waste volumes.
- The policy should clearly identify:
 - what HAW might be suitable for near-surface disposal (with or without treatment)
 - what HAW is definitely not suitable for near-surface disposal and should be stored for a long time, pending decisions on final management arrangements
 - the amounts of long-lived radionuclides in the wastes, its physical and chemical forms and international guidance and practice on storage and disposal of such waste
 - the proportion of waste that is conditioned and that which is still unconditioned, or yet to be created from decommissioning
 - a timeline detailing the generation and conditioning of waste in Scotland over the implementation period of the policy

“Have we explained why we need to define the terms used in the Policy?”

- The PS would be improved by providing scientific evidence of the acceptability of near-surface disposal of some types of HAW.
- CoRWM’s 2006 recommendation to Governments was that the best way to manage HAW safely in the long term was in a geological disposal facility (a GDF) at significant depth. This conclusion was reached after extensive enquiry, consultation and review of evidence. The CD does not set out any technical reasons for excluding deep geological disposal.

“Do you agree with the definition of long-term?”

- The policy is for 'long-term' not 'indefinite' storage.
- The longevity of a store's structure is defined as 100 years and 300 years as a reasonable limit for Institutional Control of a disposal facility.
- CoRWM accepts the period of 100 years for the capability of structures and services for facilities for interim storage.
- SG should make clear why it considers 100 years is an appropriate lifetime for a storage facility in the context of long-term storage with no defined endpoint.
- CoRWM concerned about reference to 300 years as an acceptable period for institutional control for storage facilities.
- CoRWM concerned that the suggested period of a specific maximum of 300 years for institutional control of disposal facilities not in line with the Near-Surface GRA document, which suggests a more generalised limit of several hundred years.
- The policy would benefit by reference to best international practice both in relation to store design life and institutional control.

“Do you agree with the definition of near surface?”

- The definition of ‘near surface’ is general and deliberately leaves scope for above-ground or below-ground structures down to depths of ‘several tens of metres’.
- The policy should explain why it is not practicable to be more specific about the definition of depth.
- The ER helps in defining what is meant by ‘near surface’, by providing examples of the types of facility that might be constructed.
- The document would benefit from the provision of a wider range of examples, covering storage and disposal facilities for ILW only, disposal facilities for ILW and LLW, and ‘*in situ* disposal’ of ILW and LLW.

“Do you agree with the definition of near site?”

- The presumption in the CD is that ‘site’ refers to an existing nuclear licensed site whilst The Environmental Report includes the possibility of centralised facilities located anywhere in Scotland.
- The PS could be clearer in stating that the policy allows for facilities to be located in a wide range of locations across the country, including well away from existing nuclear sites.
- The more general definition of ‘near site’ that is within the ER should be brought out clearly within the main policy statement.
- Site selection is to be based on the proximity principle.
- CoRWM considers that although optimising the transport of higher activity waste is important, other factors should also be taken into consideration.
- The application of the proximity principle should not exclude any benefits that could arise from optioneering and optimisation in the management of HAW.

“Do you agree with the definitions of storage, disposal and monitorable?”

- Storage – yes, as in line with CoRWM’s definition.
- Disposal – yes, as CoRWM’s recommendation was for geological disposal of most HAW but with other options being considered for reactor decommissioning wastes.
- Monitorable – yes, as will be a legal, regulatory requirement.

“Do you agree with the definition of retrievable?”

- The definition of retrievable is not clear and could be improved. CoRWM refers to our own definitions for retrievable, reversible and recoverable as follows:
 - **Retrievability.** An ability to withdraw wastes from a disposal facility that is achieved by means designed into the facility other than simply reversing waste emplacement.
 - **Reversibility.** The ability to withdraw wastes from an open disposal facility by reversing the emplacement process.
 - **Recoverability.** The ability to remove wastes from a closed disposal facility by mining, drilling boreholes, *etc.* (Unlike ‘retrievability’, ‘recoverability’ does not entail the inclusion of any recovering-specific design features in a disposal facility).

“Do you agree with the definition that the need for transport over long distances is minimal?”

- CoRWM agrees with the need to minimise the need to transport radioactive waste over long distances.
- To avoid excessive transportation of HAW is an important consideration but other factors need to be taken into account such as cost, best value and security.

“Have we explained the implications of the Policy?”

- The PS does not adequately define or consider the financial, social and environmental impacts of the management of HAW that is not suitable for shallow disposal and that will have to be stored for over 1000 years (25% of the HAW in Scotland).
- 98% of the ILW at Dounreay is not suitable for near-surface disposal.
- The Letters of Compliance (LoC) for ILW that has been so assessed (50% by volume) are for disposal in a Geological Disposal Facility (GDF) and not for near-surface disposal.

“Do you agree with the implications of the waste hierarchy?”

- There is a need to apply this concept with consideration to all relevant factors.
- There are significant cost implications in some treatments of radioactive waste alongside their attendant transport, environmental and health risks.
- These factors need to be considered when assessing whether there is any net benefit of reusing or recycling wastes so as to minimise quantities for disposal.

“Do you agree with transport of Waste for treatment?”

- The policy should allow transport of waste for treatment, either to allow recycling or to make it suitable for storage or disposal.
- Options involving waste transport should be considered and compared on the basis of their health and environmental risks, costs and other factors.
- Transport issues raise significant community and public concern and should be addressed in the development of an implementation strategy.

“Do you agree with export of Waste for treatment?”

- The policy should allow export of waste for treatment, either to allow it to be recycled or to make it suitable for subsequent storage or disposal in Scotland.
- Options involving waste export should be considered alongside other options and compared on the basis of their health and environmental risks, costs and other factors.

“Do you agree with the need to develop a Strategy to implement the Policy? Do you agree that the Nuclear Decommissioning Authority should be responsible for developing the Strategy to implement the Policy?”

- A strategy is required to implement the Policy.
- The NDA should take the lead in developing the Strategy but directed and enabled by the SG.
- The SG should take a central role in facilitating implementation and bringing together the NDA, nuclear site licensees and MoD.
- More guidance should be given by SG in relation to process and time.
- The implementation strategy should be included in a future National Planning Framework.

“Should the Proposed Detailed Statement of Policy include anything else?”

- Cost implications
- Timeframe
- Public and Stakeholder Engagement
- Voluntarism
- Research and Development
- Skills

“Do you agree that the environmental report has captured the significant environmental effects of the policy? – (1)

- The ER has captured most of the key significant environmental effects of the policy.
- The fact that the ER adopts a general 'Scottish-wide' approach and that it is not assumed that 'existing site' or 'adjacent to existing site' options may be the preferred solution on environmental grounds is to be welcomed.
- The approach adopted in the ER is non prescriptive and adopts a narrative/exploratory analysis of the key environmental impacts, both negative and positive and is supported.
- The ER provides greater depth and clarity on some of the concepts and definitions than in the PS.

“Do you agree that the environmental report has captured the significant environmental effects of the policy? – (2)

- The ER explains why disposal in deep geological facilities is not regarded as a *“reasonable alternative”* for the purposes of the SEA, despite the fact that it is described as the *“most important”* overall alternative.
- CoRWM considers that some comparison with deep geological disposal would enhance public confidence in the SG policy by displaying all options in an open and transparent manner.
- The social and environmental effects of the policy for the indeterminate storage of HAW, not suitable for near-surface disposal, should be considered.

“Do you agree with the proposed arrangements for environmental mitigation and monitoring, identified in the Environmental Report?”

- Mitigation measures proposed in the ER indicate a commitment to best current practice at a technical level.
- Further thought could be given to mitigation measures for any population that might be impacted by a disposal facility/facilities and their environment.
- ‘Mitigation by agreement’.
- Formal monitoring process would be implemented by the Regulators and LPA as a legal requirement.
- To allow the site operator, regulators, local stakeholders, interested parties and the public to be explicitly involved in local monitoring initiatives.

