

International Conference on the Safety of Radioactive Waste Management,  
Decommissioning, Environmental Protection and Remediation: Ensuring  
Safety and Enabling Sustainability



Contribution ID: 75

Type: ORAL

## Embedding sustainability into nuclear site decommissioning strategy and site restoration delivery – An example from the Winfrith Site in the UK

The Magnox Winfrith site, located in Dorset UK, is a former nuclear research facility that hosted 9 experimental research reactors, including the Steam Generating Heavy Water Reactor, and numerous laboratories supporting nuclear research.

The current decommissioning plan is to remove the two remaining reactor cores and deliver the optimised approach to decommissioning and waste management to a next land use suitable for public access.

Magnox has incorporated UN Sustainable Development Goals into strategic decision making on waste management and decommissioning. The optimisation process seeks to balance the benefits and detriments of short-term impacts against long term risks to define the preferred approach to decommissioning and includes input from the local community.

Optimisation assessments have identified examples that support on-site disposal of low-level radioactive waste (concrete structures) and removal (discharge pipeline) as preferred strategies.

The impacts and risks from the proposed on-site disposals are assessed in accordance with the UK Regulatory framework, including the Environment Agencies guidance on radioactive substances disposal.

The on-site disposals sit in wider context of restoration of the Winfrith site which will support biodiversity net gain and local water quality improvement.

Key lessons learnt in the process include involving stakeholders in decision making on technical issues and engineering justification of legacy structures.

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**Track Classification:** Track 4 - Integrating the views of society into decision-making considering technical, environmental, social, and economic factors