



An industry perspective

Nuclear sector plan

A radioactive substances regulation case study

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In the face of rapid change, businesses within the nuclear sector are rising to the challenge to ensure they reduce their impact on the environment. We speak to two of the nuclear operators to find out how working with us, and using the nuclear sector plan is influencing improvements in environmental performance.

Along with many other companies, Magnox South and Magnox North have seized the opportunity to work with the Environment Agency and have embraced the Nuclear Sector Plan (NSP) as a template to monitor and improve its performance.

Challenging performance

Martina Mullarkey, Magnox South Ltd explains how the NSP is challenging the organisation to push standards higher. “We have incorporated objectives from the nuclear sector plan within our monthly key performance indicator reporting. Scrutiny at Director level has given further impetus to benchmarking across our sites.”

Site improvements

A number of projects/processes are underway to reduce environmental impact, optimise resources and improve waste management.

Waste recycling rates are typically 60 per cent across waste streams, depending on decommissioning projects underway, with inert up near 100 per cent.

Recycling has been extended to radiological metal through a pathfinder project at Hinkley A; specifically ponds skips being recycled into Shielding. The successful dissolution of Fuel Element Debris (FED) at Dungeness is



Staff at Bradwell plant a tree in a pledge to reduce their carbon footprint

being assessed for other sites to significantly reduce the residual waste to 5 per cent of original volume.

“We have reduced water consumption at Bradwell site by around 62 per cent over the past year following a number of site improvements,” says Martina. “A leak detection and repair project identified and corrected a significant problem in the town’s water pipe at the north end of the site. Other factors which helped to reduce water use include the introduction of a new, more efficient reverse osmosis unit”.

The largest source of waste at the Magnox North site at Oldbury is silt.

It is dredged from the cooling water intake in the River Severn tidal reservoir and deposited on land at the site.

Although they are landfills, Oldbury’s three silt lagoons bring major environmental benefits. One lagoon is important to wetland birds while the other two are designated as Sites of Nature Conservation Importance due to their ornithological and botanical interest.

Oldbury is one of many sites implementing Biodiversity Action Plans (BAPs) as part of the NSP.

Through the BAP, staff have been regenerating the site’s 150-tree cider orchard, as Oldbury’s Head of

“Working with the Environment Agency and the guidance of the nuclear sector plan has helped focus our attention on further improving our own performance as well as reducing the impact of our activities on the environment. We look forward to continuing this working relationship long into the future”.

Martina Mullarkey
Magnox South Ltd

Environment, Matthew Castle explains. “Our site is in a rural location. We recognise the importance of managing a BAP to ensure we meet our responsibilities towards sustainability and continual environmental improvement.”

Orchards are a particularly important habitat in South Gloucestershire and are slowly being lost across the UK. Oldbury’s cider orchard had become overgrown and the trees were unproductive and diseased.

Regeneration work involved the local community as much as possible and it is hoped larger-scale cider production will begin again. Future work will include improving the area for birds and wild flowers.

Futher information

We will be updating the nuclear sector plan in 2009. The current sector plan can be downloaded at <http://publications.environment-agency.gov.uk/pdf/GEHO1105BJVE-e-e.pdf>.

The 2007 nuclear sector plan report is available from our website at <http://www.environment-agency.gov.uk/business/sectors/32523.aspx>.

For advice and guidance on the environmental regulation of the nuclear sector visit www.environment-agency.gov.uk/nuclear.

For more information about Magnox's Bradwell site visit their website <http://www.magnoxsouthsites.com/>.

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