

nuclear sector plan

2010 Environmental
Performance Report
Summary



Foreword

This is our sixth annual report on the environmental performance of the nuclear industry in England and Wales. It describes the performance of the industry measured against the objectives and indicators set out in the [Nuclear Sector Plan](#).

We published the first nuclear sector plan in November 2005, and a revised version, Issue 2, in July 2009. Issue 2 built on the successes delivered so far and looked ahead to forthcoming challenges such as the need to minimise greenhouse gas emissions and managing wastes. We are now considering how to update the plan further.

The plan sets out the main environmental issues facing the nuclear industry over the next few years, and the ways in which we can work together to address them. It encourages nuclear operators to continue to be responsible for environmental issues and to improve further their environmental performance beyond the minimum standards of regulation. It also commits us to continue our work to be a 'better regulator', focusing on significant issues and streamlining regulation as appropriate.

We are delighted that the nuclear industry continues to support the use, and further development of, the Nuclear Sector Plan. We want the industry to use it as a basis for regular dialogue between operators on what represents best practice, to encourage greater sharing of lessons learned and innovative thinking that will support further improvements in environmental performance.

This report was written in 2011, based on 2010 data. It also references, but does not include, the additional work undertaken by the nuclear industry as a result of the incident at Fukushima in Japan. Since the event, the Chief Nuclear Inspector of the Office for Nuclear Regulation (ONR) has reported on the lessons learned for the UK. The report contains a number of recommendations for operators. A key one is that operators need to demonstrate the steps taken by them to protect nuclear sites from extreme flood events, in line with objective 2 "Recognise the impact of climate change" of the Nuclear Sector Plan.

In recognition of the joint effort between ourselves and the nuclear industry, where 'we' is used in the body of this document it applies to the Environment Agency and the industry collectively. Logos of organisations participating in this initiative are shown below.






Ed Mitchell / Environment Agency

















Summary

This report describes the environmental performance of the nuclear industry in England and Wales. It measures performance against the objectives and performance indicators set out in Issue 2 of the Nuclear Sector Plan, published in July 2009. Overall, the environmental performance of the industry during 2010 was good, with improvements made in a number of areas. Here, we highlight how the industry performed against its eight main environmental objectives during the year, and since 2005 when we started reporting.

Our 'traffic light' indicates the status of each objective as follows:

	Poor performance		Positive trend in performance since 2005
	Good performance		Negative trend in performance since 2005
	Areas where performance is adequate		

Minimise the amount of natural resources used		
The industry continues to reduce its energy and water use. In 2010 it used just over 65 million megawatt hours of electricity (4 per cent less than in 2009) and 13 million cubic meters of water (9 per cent less than in 2009).		
Recognise the impact of climate change		
The nuclear industry in England and Wales generated 17 per cent of the UK's electricity in 2010, which if produced by fossil fuels would have released around 26 million tonnes of CO ₂ . Compared to 2009, CO ₂ emissions increased by 10 per cent, as a result of carrying out more hazard reduction activities at Sellafield and the improvements made by industry in reporting CO ₂ emissions.		
Minimise discharges to air and water		
Discharges to air and water remain low and on target to meet UK Discharge Strategy commitments. Discharges of beta/gamma and tritium have fallen due to the reduced Magnox reprocessing throughput at Sellafield and the ending of commercial operations at GE Healthcare's Cardiff site. The overall trend since 2005 continues to show a reduction in discharges to air and water.		
Minimise and manage solid waste		
During 2010 the industry avoided sending 78 per cent of its low level waste to the Low Level Waste Repository – an increase on the 69 per cent it avoided sending in 2009. Operators continue to recycle the majority of their inert and non-hazardous wastes. They still need to make progress in the conditioning and packaging of 'legacy waste' (the proportion of which has remained roughly the same since 2005). New facilities are currently being built at Sellafield to help speed up the rate at which intermediate level wastes are being dealt with.		
Demonstrate sound environmental management and leadership		
Nuclear operators continue to maintain robust environmental management arrangements at their sites.		
Manage land quality and biodiversity		
The industry is committed to developing land quality management plans where appropriate. Biodiversity plans are being implemented at most nuclear sites, with a number of operators going beyond this and achieving biodiversity benchmarks.		
Improve or maintain a very high level of regulatory compliance		
The nuclear industry continues to maintain a high standard of regulatory compliance, with far fewer incidents than other regulated sectors. When notified of a breach or incident, the Environment Agency is working towards providing feedback on our investigations and regulatory position to all operators within a two month time period, and in more complex cases, updating the operators as investigations progress.		

Achieve better regulation		
<p>The Environment Agency continues to make good progress against each of its improvement goals. Guidance was published to support the Environmental Permitting Regulations 2010 and an improved system was introduced to prioritise work to ensure it is more risk-based. New Environmental Permitting Regulations were issued in October 2011, introducing a revised basis for exempting radioactive waste (more details will be given in next year's report).</p>	