

nuclear sector plan

2006 Environmental Performance Report
– Summary



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foreword



The environmental performance of the sectors we regulate matters to us. The Nuclear Sector Plan was drawn up in discussion with the nuclear industry and was one of the first plans we published.

It sets out environmental objectives that we have agreed with the industry, and how progress towards these might be measured. We are pleased that the industry has embraced this plan, which includes voluntary activities that go beyond regulatory requirements.

The nuclear industry is undergoing rapid change. The Government's recent White Paper on the future of nuclear power concluded that nuclear should have a role to play in the future generation of electricity; Government and the Nuclear Decommissioning Authority (NDA) are mapping out an approach for the geological disposal of higher activity radioactive waste. The NDA is reorganising the established civil nuclear industry and seeking to drive innovative approaches to site decommissioning and clean up.

We expect high environmental standards to be achieved throughout all this work. We will be looking for world class environmental performance from any new nuclear power

stations that are built. At the same time we will be urging those involved in dealing with our national nuclear legacies to make progress in delivering decommissioning and clean-up of sites, whilst simultaneously protecting the environment. By working together in partnership we can deliver these challenging goals.

We will soon be reviewing this plan to update its scope and objectives in the light of these changes and the challenges they bring. We will also take care to build on our experience in using the plan to date.

Tricia Henton / [Environment Agency](#)



summary

We have reported on the environmental performance of the nuclear sector in our **Nuclear Sector Plan, 2006 Environmental Performance Report**, available on our web site. This measures the environmental performance against the objectives and performance indicators set out in the **Nuclear Sector Plan**. Here we provide a summary of the Environmental Performance Report.

The Nuclear Sector Plan was developed in discussion with the nuclear industry. It sets out environmental objectives and indicators of performance that we and the industry have agreed. These cover statutory responsibilities, but go further by including voluntary activities the industry has agreed to undertake. The plan also addresses areas where we have agreed

to improve our work as an environmental regulator. We are pleased that the industry is supporting the sector plan and has agreed to use the plan to monitor and report on the impact of its activities.

Overall, the environmental performance of the sector was very good during 2006, with improvements over previous performance being made in a number of areas. Of course, we will need to monitor performance over a number of years to identify trends. Here, we highlight how the sector performed against its eight main environmental objectives, where there are still areas for improvement, how environmental performance in the nuclear sector compares with other sectors, and how we intend to use this information in the future.

Nuclear performs well against other sectors

The performance report for 2006 showed that in a number of key areas the environmental performance of the nuclear sector was good in relation to other industry sectors. The sector is using fewer resources, greenhouse gas emissions are small, discharges of pollutants to the environment are generally falling or remaining the same and there were no serious pollution incidents or serious breaches of permits.

Areas for improvement

Although overall environmental performance of the nuclear sector was good in 2006, there are areas on which it needs to focus its attention in order to further improve performance, in particular:

- making better use of resources at some sites, particularly those sites that can update infrastructure and management systems;
- packaging and conditioning intermediate level radioactive waste in a form suitable for disposal;

- sharing best practice on recycling conventional waste within the nuclear sector and learning from other sectors;
- continuing to make good progress in reducing discharges by applying ‘best practicable means’ (BPM), and making progress towards meeting all of the UK strategy targets for radioactive discharges;
- making progress in delivering improvements in integrated waste management as set out in ‘integrated waste strategies’ (IWS) drawn up for individual sites, and developing a national waste strategy that builds on this work;
- operators and us to track and share numbers of lower categories of incidents and breaches to provide early warning of trends.

We will develop an RSR Operator Performance and Risk Appraisal (OPRA) scheme, and use this to develop performance measures for environmental management systems.

Moving forward

We will use these results as a base for future reports, as well as for reviewing the Nuclear Sector Plan in 2008. The review will make sure that we continue to work together to improve the environmental performance of the sector as it addresses the major challenges ahead.

Feedback

This is the first public report of performance against the Nuclear Sector Plan objectives. We would welcome your views on the content or format of the report. If you have any queries or wish to make any comments, please contact David Bennett – david.bennett@environment-agency.gov.uk



1 Natural resource usage reduced

→ Sites used less water and energy than in 2005. The nuclear sector used a total of 15.7 million cubic metres of water, that's four per cent less than in 2005. It also used 27,080 TJ (7.5 TWh) of energy, a one per cent reduction on the previous year.



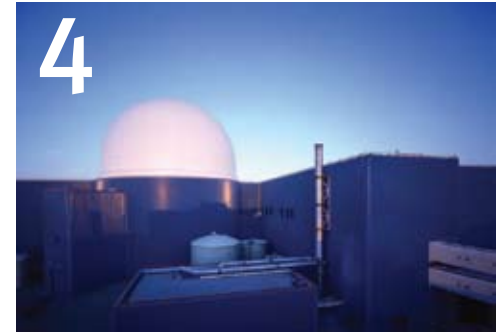
2 More waste produced but being managed

→ Progress with packaging intermediate level radioactive waste (ILW) varied from site to site, with Sellafield, Trawsfynydd and Windscale all making good progress. Nevertheless packaging radioactive wastes into a form fit for long term storage and ultimate disposal is a significant future challenge for the industry. The sector produced a total of 257,000 tonnes of non-radioactive waste in 2006, more than in the previous year, although a significant proportion of this was from decommissioning activities. Over 75 per cent of this waste was classed as inert. Integrated waste strategies were in place at 73 per cent of nuclear sites.



3 Progress towards meeting targets for discharges to air and water

→ Reducing liquid radioactive discharges to meet the UK radioactive discharge strategy targets is one of the main environmental challenges facing the nuclear sector. Good progress is being made. Sellafield met a challenging target of reducing technetium-99 discharges from 190 terabequerels (TBq) in 1995 to less than 10 TBq/year by the end of 2006. This was achieved by the introduction of changes made as a result of requirements we imposed. The general trend in recent years has been for discharges to reduce. Some discharges increased in 2006 following the return from outage of plant at Sellafield, and due to increased output at some Magnox power stations.



4 Contribution to reducing greenhouse gases

→ The nuclear sector releases a relatively small amount of greenhouse gases into the environment. In 2006, the sector generated 18 per cent of the UK's electricity and released greenhouse gases equivalent to 0.6 million tonnes of carbon dioxide. If this amount of electricity had been generated using fossil fuels, something like an extra 40 million tonnes of carbon dioxide emissions would have been generated.



5 Working to restore sites and develop biodiversity action plans

→ Operators reported that 90 per cent of nuclear sites need a contaminated land management plan. These cover both work to characterise contamination on sites and, if merited, to remediate contamination found; 89 per cent of these sites already had some arrangements in place in 2006. 70 per cent of sites had implemented biodiversity action plans (BAPs) by the end of 2006, a voluntary initiative being taken forward under this sector plan.



6 Links between the industry, regulators and stakeholders working well

→ Good progress is being made to improve involvement and understanding between nuclear sites, the Environment Agency and other interested organisations. All nuclear sites hold some form of regular stakeholder local liaison meeting. 83 per cent of operators published their own environmental report in 2006.



7 Increasing awareness of product stewardship

→ There are some examples of good practice in relation to product stewardship within the nuclear industry. For example, several sites already assess the environmental performance of their suppliers, and we encourage the industry towards wider adoption of good practice.



8 Improvements in regulatory and environmental management systems

→ Modern multi-media authorisations for disposing of radioactive waste were in place at 70 per cent of nuclear sites by the end of 2006 and there were no serious pollution incidents or serious breaches of permits in the sector during this year.

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