

# Office for Nuclear Regulation

An agency of HSE

## Quarterly site report for Oldbury Nuclear Power Station

1 July to 30 September 2011

### Foreword

This report is issued as part of the Office for Nuclear Regulation's commitment to make information about inspection and regulatory activities relating to the above site available to the public. It is for distribution to members of the Oldbury Site Stakeholder Group and covers activities associated with the regulation of safety at Oldbury Nuclear Power Station. These reports are distributed quarterly and are also available on the ONR website ([www.hse.gov.uk/nuclear/llc](http://www.hse.gov.uk/nuclear/llc)).

Site inspectors of the Office for Nuclear Regulation usually attend Site Stakeholder Group meetings and will respond to any questions raised there by the members of the group. Any other person wishing to inquire about matters covered by this report should contact the Office for Nuclear Regulation.

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## Inspections

The Office for Nuclear Regulation (ONR) Site Inspector made inspections on the following dates during the quarter:

14 July 2011  
3 to 4 August 2011  
16 to 18 August 2011  
6 to 8 September 2011  
27 to 28 September 2011

Specialist inspectors carried out inspections on the following dates during the quarter:

16 August 2011  
17 August 2011  
27 to 28 September 2011

## Routine matters

### Inspections at site

Inspections at Oldbury are undertaken at site as part of the process for monitoring compliance with:

- (i) the conditions attached by HSE / ONR to the nuclear site licence;
- (ii) the Health and Safety at Work etc Act (HSWA) 1974; and
- (iii) regulations made under the HSWA (for example the Ionising Radiations Regulations 1999 and the Management of Health and Safety at Work Regulations 1999).

This entails monitoring licensee's actions on the site in relation to incidents, operations, maintenance, projects, modifications, safety case changes and any other matters which may affect safety. The licensees/operators are required to make and implement adequate arrangements under the conditions attached to the licence in order to ensure legal compliance. Inspections seek to judge both the adequacy of these arrangements and their implementation. In this period routine inspections of Oldbury Nuclear Power Station covered:

- operating rules;
- operating instructions;
- incidents on the site;
- emergency arrangements;
- marking of the site boundary;
- safety mechanisms, devices and circuits;
- examination, inspection, maintenance and testing;
- modification or experiment on existing plant;

- control and supervision of operations;
- documents, records, authorities and certificates;
- site plans, designs and specifications;
- accumulation of radioactive waste; and
- leakage and escape of radioactive material and radioactive waste.

A meeting was also held with the safety representatives.

In general the arrangements made and implemented by the site in response to safety requirements were deemed to be adequate in the areas inspected. However, where improvements were considered necessary, satisfactory commitments to address the issues were made by the licensee, and the Site Inspector will monitor progress during future visits. Where necessary, formal regulatory enforcement action will be taken to ensure that appropriate remedial measures are implemented to reasonably practicable timescales.

### **Reactor 1**

Reactor 1, shutdown for a graphite specific outage on 10 May and returned to service on 26 June 2011. During the outage, a number of graphite channels were inspected and graphite samples obtained. Visual inspection results did not reveal any areas of concern.

Following Reactor 1 return to service, a problem was experienced with the routine exchange of a control rod assembly (not graphite-related). Reactor 1 was manually shutdown on 14 July 2011 in a controlled manner, to resolve the issue and returned to service on 26 July 2011.

The samples taken during the graphite outage have been analysed and some differences between the measurements and predictions were noted, which challenges the graphite safety case. A justification for continued operation to a mean core irradiation (MCI) limit of 32 GWd/t (Gigawatt days per tonne) has been made, this limit is likely to be reached in January/February 2012.

A meeting between the licensee and ONR's graphite specialist inspectors was held on 20 September 2011. The licensee is considering submitting a revised safety case to the ONR later this year, justifying continued operation of Reactor 1 to an MCI limit of 32.8 GWd/t (approx. end of December 2012).

Inter-reactor transfer of fuel from Reactor 2 to Reactor 1, commenced on 20 August 2011, no significant issues have been reported to the ONR.

### **Reactor 2**

Reactor 2 was shut down at the end of June 2011, in accordance with the limits contained within the graphite safety case.

All major carbon dioxide (CO<sub>2</sub>) pipes to Reactor 2 have been isolated and capped, and supplies to most of the control rods assemblies have been isolated and locking plates fitted, to prevent them being withdrawn.

A request for an 'agreement' to permanently insert the safety rods in Reactor 2 has been received and is currently being assessed by ONR's specialist inspectors.

### **Level 1 emergency exercise demonstration to ONR**

An emergency exercise took place on 28 September 2011, and was observed by a team of ONR inspectors. The purpose of the exercise was to demonstrate Oldbury's capability to contain and manage a site incident and an off-site nuclear emergency. The exercise was deemed to be a satisfactory demonstration of Oldbury's emergency arrangements, with some good performances observed in a number of areas.

### **Non-routine matters**

Licensees are required to have arrangements to respond to non-routine matters and events. ONR inspectors judge the adequacy of the licensee's response, including actions taken to implement any necessary improvements. Matters of particular note considered during the current period include the following;

There were no matters of note to report.

### **Regulatory activity**

Under health and safety legislation, ONR site inspectors, and other HSE inspectors, may issue formal documents to ensure compliance with regulatory requirements. Under nuclear site licence conditions, ONR issues regulatory documents, which either permit an activity or require some form of action to be taken; these are usually collectively termed 'licence instruments' (LIs), but can take other forms. In addition, inspectors may issue enforcement notices to secure improvements to safety.

There were no matters of note to report.

## News from ONR

### ONR Board

The full ONR Board came into effect on 25 July and comprises of nine members: Nick Baldwin as the Chair, four non-executive members (Steve Bundred, John Crackett, Paul Kenny and Kevin Myers) and four executive members (Kevin Allars, Paul Brown, John Seddon and Mike Weightman).

Three Board meetings were held during this reporting period. Further information about the Board and minutes of the meetings can be found under the Board pages of the ONR website <http://www.hse.gov.uk/nuclear/onr-board>

### Moving towards a programme management organisation

Under the remit of ONR's transformational change programme, work is now underway to establish programme management principles within ONR. This way of working is closely aligned to industry and government programme management best practice and will enable ONR to meet increasing demands. This transformational change will: re-organise ONR's current organisational structure into four delivery-focussed and integrated programmes (Civil Nuclear Reactors, Defence, Sellafield, Decommissioning, Fuel and Waste); establish a corporate programme office to co-ordinate and consolidate information across the programmes, ensuring consistency in operations, and, recruit programme managers to support each of the programmes.

This approach supports the proposed establishment of ONR as a statutory corporation, signalling the ongoing commitment to securing an appropriately resourced and responsive regulator for the future.

### ONR public consultation

From 19 Sept – 12 Dec a 12-week public consultation is running to clarify ONR's interpretation of bulk quantities relating to radioactive matter. The nuclear site-licensing regime currently applies to a set of defined activities, which includes the storage of bulk quantities of radioactive matter. However, there is no clear definition of what constitutes 'bulk quantities' of radioactive matter, storage of which would need to be licensed. Further information is available under the bulk consultation pages of the ONR website (<http://www.hse.gov.uk/consult/condocs/cd-onr-bulk.htm>)

### ONR corporate publications

ONR's first corporate plan for 2011-2015 and quarterly report have been published on the ONR website. The plan provides an insight into ONR's strategic intentions over the next five years and how these will be resourced. The quarterly report reflects the key themes and developments in each of ONR's regulatory programmes and explains the ongoing changes at ONR, as it progresses towards becoming an independent statutory corporation.

Also published on the website in September was the 2011 Nuclear Research Index (safety operating reactors). Traditionally the scope of the NRI is limited to operating nuclear reactors. Research work is done in other nuclear areas, but is coordinated separately.

Therefore the scope of the 2011 NRI relates solely to the requirements for nuclear safety research relevant to operating nuclear reactors. ONR is planning to undertake a review to identify the overall requirements for nuclear safety research, including whether it should be extended to cover all areas of nuclear safety research.

### **Stress tests**

The European Council requested a review of safety at European nuclear power plants. The European Commission supported by the European Nuclear Safety Regulatory Group (ENSREG), produced criteria and a plan for this review, now known as the 'EC stress test'. Participating nations agreed to provide progress reports by 15 September and full reports in December. The UK report compiled and delivered by ONR has been published online.

### **Fukushima report**

Secretary of State for Energy and Climate Change, Chris Huhne, requested a report from chief nuclear inspector Mike Weightman on lessons for the UK nuclear industry from the Japanese incident. The report will be delivered to DECC in the autumn and made public. An interim report was published in May, concluding that there was no reason to curtail nuclear plant operations in the UK. ONR has written to community groups around nuclear sites in the UK to establish levels of interest in ONR conducting a series of regional public briefings.

### **Site licence application for Hinkley Point C received**

ONR received an application from NNB Generation Company on 29 July for a nuclear site licence, relating to its proposed development of a new nuclear power station in Hinkley Point. It is anticipated that ONR will spend around 18 months assessing NNB Generation Company's suitability, capability and competence to install, operate and decommission a nuclear facility. If licensed, the company will be subject to statutory obligations and regulation by ONR.

### **Nuclear Safety Directive and amended licence conditions**

Amendments have been made to licence condition 17 and 36 to allow the obligations of the Nuclear Safety Directive (NSD) 2009/71/Euratom, to be fully implemented in relation to Great Britain. In light of this, ONR's licence condition handbook has been updated and is available via the ONR website.