

Quarterly site report for Dounreay Nuclear Licensed Site

1 July to 30 September 2011

Foreword

This report is issued as part of the Office for Nuclear Regulation's (ONR) commitment to make information about inspection and regulatory activities relating to Dounreay Nuclear Licensed Site available to the public. Reports are distributed quarterly to members of the Dounreay Site Stakeholder Group (DSSG) and are also available on the ONR website (www.hse.gov.uk/nuclear/llc).

Site inspectors from ONR usually attend DSSG 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 ONR.

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Inspections

The ONR Site Inspectors made inspections on the following dates during the quarter:

27-29 July 2011

22-25 August 2011

12-16 September 2011

Routine matters

Visit to site by the Chief Inspector and a Deputy Chief Inspector

The Chief Inspector, Mike Weightman, and Deputy Chief Inspector, Dave Senior, visited the site during July. Their purpose was to meet and exchange views with the DSRL Board and staff, including Safety Representatives, on matters of interest including performance of the site and licensee, the formation of the ONR and lessons to be learned from events at Fukushima.

Inspections at Dounreay Nuclear Licensed Site

Inspections are undertaken 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 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 site covered:

New incident reporting procedures

As noted in the last report, ONR earlier this year issued new guidance on notifying and reporting incidents and events occurring on licensed nuclear sites. DSRL and the site inspector discussed the site arrangements and are confident they meet the new ONR notification guidance. They also discussed the findings of a DSRL review that compared unusual occurrence findings in 2009 with those in 2010. DSRL demonstrated alertness to learning opportunities from past trends and the effectiveness of improvement implementation.

Leakage and escape of radioactive material and radioactive waste

During the operation of some facilities a various times up to the 1990s small amounts of radioactive material seeped into the concrete base mats. Decommissioning provides the opportunity to bring such material back into the control of DSRL. The inspector confirmed that this was being achieved. The evidence provided by DSRL indicated that they had been successful in reducing contamination so far as reasonably practicable in the areas

addressed. The quality of this clean-up indicated a willingness by DSRL to remediate past poor practices when the opportunity arises as part of the facility decommissioning process.

Commissioning

The inspectors met DSRL staff to discuss DFR breeder fuel removal preparations. Progress had been made to accommodate changes to the plant needed to address the management of out-of-reactor breeder material and reservations arising from inactive commissioning findings.

Accumulation of Radioactive Waste

The site inspectors reviewed DSRL arrangements for complying with LC32, on accumulation of radioactive waste. The hierarchy of documents looked appropriate, but some local arrangements did not appear to address minimisation of the production of radioactive waste. In addition, some managers did not appear to know that radioactive waste management on the site was regulated primarily by ONR through the licence conditions, but viewed it as a matter for the Scottish Environment Protection Agency (SEPA), which is not the case except where discharge and disposal are to occur (matters that are subject to close liaison between ONR and SEPA). This could lead to accidental breach of the law if not improved upon. The site inspectors will follow this up in future visits. The inspectors did not raise any issues with the way DSRL deal with the accumulation of radioactive waste during the quarter.

Operating Rules and safety mechanisms, devices and circuits

The inspectors inspected how DSRL applied operating rules and safety mechanisms, devices and circuits in one of the facilities on site. After the inspections and discussions with local management, the inspectors were satisfied that DSRL's approach to defining operating rules in combination with the independent detection systems (and taking account the limited lifetime of the plant) was adequate.

On the same theme a follow-up inspection of findings in June was undertaken after concerns over the resilience to loss of inerting capability in one plant. The inspector found DSRL's response since June was positive as it addressed the issues raised, and went further in some instances and some improvements had already been implemented.

Safety Representatives

The inspectors regularly met with Safety Representatives during the quarter from organisations employed across Dounreay, including DSRL and their contractors. The impression gained was that employers appreciate the work of Dounreay Safety Representatives and generally provide sufficient resources for their work. The site inspectors emphasised that ONR valued the work of 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 Inspectors 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.

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:

DSRL are undertaking a number of initiatives to ensure the needs of safety and security are coordinated when responding to non-routine matters and events. ONR safety and security inspectors are working with DSRL on this important issue, which should result in a joint exercise of the emergency arrangements next year.

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.

No Licence Instruments were issued to the licensee during the quarter.

Reports detailing regulatory decisions can be found on the ONR website (www.hse.gov.uk/nuclear/pars).

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 conditions 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.