

Office for Nuclear Regulation

An agency of HSE

Quarterly site report for Dounreay Nuclear Licensed Site

1 April to 30 June 2012

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:

23 to 26 April 2012

08 to 11 May 2012

21 to 24 May 2012

12 to 14 June 2012

Routine matters

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 the following routine inspections were undertaken.

Change of Parent Body Organisation

This quarter saw the arrival of the new Parent Body Organisation (PBO) at Dounreay. ONR Site Inspectors convened a number of initial meetings to get to know the incoming PBO staff and to start developing a mutual understanding of key issues and priorities.

During the quarter ONR considered a Dounreay Site Restoration Ltd (DSRL) proposal to create new Directorates with the intention of improving accountability and to put experienced PBO secondees into senior management positions. This intervention led to improvements in the way that this organisational change would be managed. Having received appropriate assurances ONR confirmed it had no further objections to the proposals.

Examination, maintenance, inspection and testing

The ONR site inspector followed up concerns raised earlier on the way that DSRL brought equipment back into service after maintenance. DSRL had conducted their own enquiries that confirmed ONR's findings and remedial actions have been put in place. DSRL wrote to ONR setting down the improvements that have been undertaken. ONR welcomes the positive approach taken by DSRL to investigate and rectify the issues raised.

Management of operations

The ONR site inspector examined the way in which DSRL undertakes activities to provide reassurance that operations are conducted safely. Included within this is the work of the DSRL Independent Assessment Team (IAT), which carries out routine inspections or audits against site standards, and the process of Self-Assurance involving routine monitoring of operations together with recording and actioning of findings. The ONR site inspector recognised that both are contributing significantly to DSRL's demonstration of control of nuclear safety across the site. However as the pace of decommissioning gradually accelerates DSRL will need to make sure that IAT and Self-Assurance are properly resourced to maintain the integrity of their roles.

Plant construction and/or commissioning

ONR undertook an inspection of a new facility at Dounreay to evaluate its readiness to commence active commissioning of breeder material repackaging prior to its transportation to Sellafield. The ONR inspectors concluded that DSRL had made acceptable progress. Although further work is required to ensure readiness for active commissioning there are no outstanding regulatory concerns which might delay the wider programme of breeder repackaging and transport to Sellafield.

Emergency preparedness

ONR has previously indicated that DSRL is undertaking a number of initiatives to ensure the needs of safety and security are coordinated when responding to non-routine matters and events. Included within this was a plan to undertake a joint safety-security exercise that was to have been held in May 2012. Unfortunately, on the morning of the exercise an off-site electrical fault led to operational difficulties at Dounreay with the result that the exercise was postponed. The exercise has been re-scheduled for 2013.

DSRL has carried out an investigation into the reasons why the off-site fault led to on-site operational difficulties and has reported its findings to ONR. ONR is now carrying out its own preliminary investigation to establish the key facts and confirm that remedial actions are adequate.

There is a legal requirement that DSRL rehearses its emergency arrangements regularly. Because of the May 2012 postponement, ONR has agreed with DSRL that there will be a separate emergency exercise in October 2012 to test DSRL's ability to respond to a nuclear safety emergency.

Radiological protection

An ONR specialist inspector carried out an inspection for compliance with aspects of IRR99. Generally the inspector concluded that DSRL's compliance with IRR99 was satisfactory but some areas for improvement were noted and have been actioned by DSRL.

Radioactive Waste Management

ONR site and specialist inspectors discussed the strategy for managing solid Higher Activity Waste (HAW) that is expected to arise from decommissioning at Dounreay. The Scottish Environment Protection Agency (SEPA), the Nuclear Decommissioning Authority (NDA) and the Scottish Government also participated. DSRL is proposing a revised strategy which entails placing solid HAW in shielded packages and storing these packages in a robust but essentially unshielded store. This was a successful initial exchange on a topic that is key to the timely decommissioning of the site.

Decommissioning

ONR and SEPA Site Inspectors participated in a discussion on DSRL's outline proposals for decommissioning the Dounreay Fast Reactor (DFR) and the Prototype Fast Reactor (PFR). Of key significance to the decommissioning programme will be the techniques chosen for the safe passivation of the alkali metals used originally to cool the reactors: these alkali metals are radioactively contaminated and are also chemically reactive. We made good progress and further discussion is planned prior to DSRL submitting firm decommissioning proposals.

Safety Representatives

ONR inspectors met with Safety Representatives during the quarter from organisations employed across Dounreay, including DSRL and their contractors. 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:

During this quarter, DSRL has responded to the Chief Inspector's Final report on lessons learned from Fukushima, published in October 2011 (Japanese Earthquake and tsunami: Implications for the UK nuclear industry). DSRL has also compiled a response to the related Non-Power Generating Stress Test report published in May 2012 (Stress tests for

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UK non-Power Generating Nuclear Facilities Final Report). ONR specialist inspectors are currently reviewing DSRL's response to both publications; a further report will be published by the Chief Inspector in October 2012 wherein ONR's assessment of all licensee responses to date will be detailed. DSRL has responded positively, proportionately and proactively during all post-Fukushima reviews.

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 LIs 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

Insight into more of ONR's work as an independent regulator of the nuclear industry can be found in ONR's Quarterly News (<http://www.hse.gov.uk/nuclear/onr-quarterly-report.htm>). The online publication reports on key themes and developments in each of the regulatory programmes of work and provides an update on ongoing changes at ONR as it progresses toward becoming an independent statutory corporation.

Regular news and updates are available on the ONR website (<http://www.hse.gov.uk/nuclear/index.htm>), together with information about our people, sites that we regulate and the work that we do, as well as key guidance and resources.