



Office for Nuclear Regulation (ONR) Quarterly Site Report for Dounreay

Report for period 01 October – 31 December 2016

Foreword

This report is issued as part of ONR's commitment to make information about inspection and regulatory activities relating to the above site available to the public. Reports are distributed quarterly to members for the Dounreay Stakeholder Group and are also available on the ONR website (<http://www.onr.org.uk/lrc/>).

Site inspectors from ONR usually attend Dounreay Stakeholder Group meetings and will respond to any questions raised there. Any person wishing to inquire about matters covered by this report should contact ONR.

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1 INSPECTIONS

1.1 Dates of inspection

The ONR site inspector and other inspectors made inspections on the following dates during the quarter:

17 to 20 October 2016
7 to 10 November 2016
16 to 17 November 2016
22 to 24 November 2016
5 to 8 December 2016
13 to 15 December 2016

2 ROUTINE MATTERS

2.1 Inspections

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

- the conditions attached by ONR to the nuclear site licence granted under the Nuclear Installations Act 1965 (NIA65) (as amended);
- the Energy Act 2013;
- the Health and Safety at Work Act 1974 (HSWA74); and
- regulations made under HSWA74, for example the Ionising Radiations Regulations 1999 (IRR99) and the Management of Health and Safety at Work Regulations 1999 (MHSWR99).

The inspections entail monitoring licensee's actions on the site in relation to incidents, operations, maintenance, projects, modifications, safety case changes and any other matters that may affect safety. The licensee is 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 Dounreay covered the following:

Control of nuclear material;
Periodic review of safety;
Operating limits and conditions and operating instructions;
Commissioning;
Incidents
Decommissioning;
Criticality safety.

Control of nuclear material

Licence Condition (LC) 4 requires the licensee to have adequate arrangements for the control of nuclear material. The inspector focussed on the systems put in place by DSRL to ensure materials accountancy. The inventory of nuclear matter in each location is held within a site database. Each facility is responsible for carrying out an annual physical audit of the areas under its control. The inspector sampled database records and confirmed that an appropriate audit trail was in place that demonstrated that personnel at each stage of a transfer, including the nuclear materials controller had signed off the move. He was content that a robust process was in place to assure materials accountancy.

Periodic review of safety

LC 15 requires the licensee to have adequate arrangements for the periodic review of safety cases. The inspector was content that the licensee's periodic review process, together with training and support given through the community of practice at a corporate level, are consistent with our guidance. However, delivery of the process to required timescales requires some improvement and therefore a further intervention within the operational directorates will be undertaken.

Commissioning

LC 21 requires that the licensee has adequate arrangements for the commissioning of any plant that may affect safety. The inspector inspected the licensee's process for commissioning the wet area size reduction facility (WASRF) at the prototype fast reactor (PFR). He confirmed by viewing the appropriate signed-off commissioning worksheets, that a sample of items identified on the safety commissioning schedule had been successfully commissioned. However he considered that the documentation set generated to satisfy the commissioning process was overly complex and recommended that the licensee consider simplifying it for future commissioning activities.

Operating limits and conditions and operating instructions

In accordance with LC 23 DSRL is required to produce adequate safety cases and identify the operating limits and conditions necessary in the interests of safety. It must also ensure that all operations which may affect safety are carried out in accordance with written operating instructions. The inspectors sampled the limits and conditions derived from the safety cases within WASRF, waste processing facility and the new analytical laboratory. They considered that appropriate limits and conditions had been identified and that the necessary controls were in place to ensure that they were being met. They also sampled operating instructions and confirmed that records were available that demonstrated that they were being implemented.

Incidents

LC 7 requires the licensee to have adequate arrangements for the recording and investigation of incidents. ONR also expects licensees to learn from events to prevent reoccurrence. The inspectors discussed recent occurrence reports within the Reactors Directorate and Fuel Cycle Area (FCA) Directorate. The most significant was an incident during transfer of a redundant glove box in the fast reactor reprocessing facility which led to a release of alpha contamination within the facility in excess of that specified in the Ionising Radiations Regulations 1999 and was hence formally reportable to ONR. No personnel received an intake of radioactive material. The inspector considered the initial response to the event had been appropriately managed and that DSRL was undertaking the required standard of investigation into the incident to identify root causes. The application of learning from experience within the Reactors Directorate was also sampled and the inspector was satisfied with approach taken.

Decommissioning

LC 35 includes the requirement for licensees to make and implement decommissioning programmes. The inspectors were satisfied that the development and implementation of the programmes at Directorate level took due regard of safety. The FCA decommissioning programme was being reviewed to ensure that it was underpinned to support the site wide decommissioning programme.

Criticality safety

As part of a licensee wide intervention specialist inspectors examined DSRL's use of a computer based criticality safety code. The intervention was based on DSRL response to a standard question set and during the inspection they sought further detail on the licensee's arrangements for managing the quality of their safety documentation and calculations. The inspectors considered that in general DSRL's response met ONR expectations.

3 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.

As discussed above the release of contamination within the fast reactor reprocessing facility which is being decommissioned was reportable under the Ionising Radiations Regulations 1999. ONR is satisfied with both the licensee's initial response to the event, and with its subsequent investigation. Based on these and its own follow-up enquiries, ONR is satisfied that no further action is required.

4 REGULATORY ACTIVITY

ONR 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 or Enforcement Notices were issued during the period.

Table 1

Licence Instruments and Enforcement Notices Issued by ONR during this period

Date	Type	Ref No	Description

Reports detailing regulatory decisions can be found on the ONR website at <http://www.onr.org.uk/pars/>.

5 NEWS FROM ONR

EXTERNAL STAKEHOLDER EVENTS

On 1 November 2016, ONR held its Industry Conference in London, which brought together senior leaders from across the nuclear sector. We were pleased to welcome Baroness Neville-Rolfe DBE CMG, Minister of State at the Department for Business, Energy and Industrial Strategy (BEIS) to this year's conference who delivered the [keynote speech](#). A special edition of [Regulation Matters](#) has been published following the conference, which provides a summary of how the day unfolded. As part of our commitment to engage regularly

with all our stakeholder groups, we were pleased to welcome 17 representatives from a number of organisations to our ONR / NGO forum on 30 November in London. The event provided an opportunity for NGO representatives to meet with a number of senior ONR leaders, including our Chief Executive and Chief Nuclear Inspector, to discuss a number of priority issues.

Insight into ONR's work as an independent regulator of the nuclear industry can be found in ONR's Regulation Matters. The online publication (<http://www.onr.org.uk/regulation-matters.htm>) reports on the key themes and developments in each of ONR's regulatory programmes and provides an update about the ongoing changes at ONR (<http://www.onr.org.uk/index.htm>). For the latest news and updates from ONR you can also visit the website and sign up for our e-bulletin (<http://www.onr.org.uk/ebulletin/index.htm>)

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