



Office for Nuclear Regulation (ONR) Site Report for Dounreay

Report for period 1 July to 30 September 2019

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 to members for the Dounreay Stakeholder Group and are also available on the ONR website (<http://www.onr.org.uk/llc/>).

Site inspectors from ONR usually attend Dounreay Stakeholder Group meetings where these reports are presented 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 inspectors made inspections on the following dates during the report period 1st July to 30th September 2019:

- 8th to 12th July 2019
- 16th to 18th July 2019
- 24th July 2019
- 30th to 31st July 2019
- 15th August 2019
- 3rd to 5th September 2019

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 2017 (IRR17) 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 at Dounreay related to the following were undertaken:

Radioactive waste management: This inspection focused on the corporate arrangements and their implementation in achieving a minimisation of the radioactive waste that arises and accumulates as result of the current activities on the site. In particular it examined those arrangements in respect of waste minimisation, programmes and strategy, learning from operational experience and, the application of option studies at the plant design stage. The inspection also considered the adequacy of the systems in place waste related records.

Overall ONR was satisfied that DSRL has adequate arrangements for minimising the rate of production and total quantity of radioactive waste accumulated on the site at any time and for the recording of that waste.

Management of ageing infrastructure [Lifetime Plans]: This inspection focused on the procedures and processes for the inspection and maintenance of civil structures as required under LC28 [Examination, inspection, maintenance and testing], along with the site's lifetime plan and associated asset management framework as required by LC35 [Decommissioning]. It also included an examination of DRSL's arrangements for the management of conventional health and safety risks associated with the inspection and maintenance of ageing infrastructure. The inspection also comprised a number of plant walk-downs to examine the implementation of the corporate arrangements on site.

Overall ONR was satisfied that DSRL has adequate arrangements in place for the management of infrastructure across site and there is clear evidence of the effective implementation of those arrangements particularly in support of business critical facilities. ONR is also satisfied that DSRL has adequate arrangements for the management of Conventional Health and Safety risks associated with the maintenance of ageing infrastructure; advice was provided to DSRL to address access to fragile areas on facility roofs.

Construction (Design & Management) Regulations (CDMR): This inspection focused on the application of CDMR to the Dounreay Material Test Reactor [DMTR] decommissioning project, specifically the appointment of client, principal designer and principal contractor. The inspection also examined the arrangements for managing safety in the pre-construction phase.

Overall ONR was satisfied that DSRL has adequate arrangements to meet the requirements of the CDMR. In addition, ONR considers that the implementation of their CDMR arrangements in support of the DMTR decommissioning project to be adequate and consider the rationale for keeping the CDM appointees in-house to be reasonable given the project's current status. ONR also acknowledged DSRL's on-going review and revision of their CDMR arrangements to reflect the changing risk profile of the site.

Emergency arrangements: This inspection focused on the corporate arrangements and the implementation of those arrangements that support the requirements of the Dounreay On-Site Emergency Preparedness and Response (EP&R) Capability Map. This inspection focused on those areas where previous assessments had identified potential opportunities for improvement. There is clear evidence that DSRL is making adequate progress to address their arrangements in the areas identified with the majority of those improvements now complete.

Overall ONR was satisfied that DSRL's emergency arrangements demonstrate compliance against the legal requirements specified within the licence conditions and the regulatory expectations enshrined within ONR's guidance. In addition ONR also considers that adequate progress is being made in those aspects of the site's emergency arrangements where there are agreed areas for improvement.

Fire (Scotland) Act 2005: This inspection focused on DSRL's compliance with the legislation and the arrangements that support the production and review of fire risk assessment documentation. The inspection also sought to understand how DSRL maintain fire safety in a dynamic work environment and reviewed the implementation of those arrangements in support of the decommissioning activities ongoing within the Dounreay Material Test Reactor and Dounreay Fast Reactor.

Overall ONR is satisfied that DSRL has adequate arrangements in place to meet the legislative requirement and can demonstrate the implementation of those arrangements in support of dynamic high hazard activities.

Reporting of incidents on site and learning from operational experience: This inspection is part of a continuing theme of activities focused on assessing DSRL's arrangements for the reporting and investigation of incidents on site and the implementation of learning from operational experience. There is clear evidence that DSRL has made significant progress in their understanding of the concerns raised previously by ONR and continue to make improvements within their arrangements. ONR will continue to monitor progress in this area as part of its schedule of inspection activities.

Overall ONR was satisfied that DSRL's arrangements for the reporting of incidents on site continue to demonstrate compliance against the legal requirements specified within the

licence conditions. In addition ONR also considers that adequate progress is being made in those aspects of the site's arrangements where there are agreed areas for improvement.

2.2 Other work

The site inspectors also undertook a number of other inspection activities not linked directly to compliance against legislation.

Permissioning activities: ONR has agreed a number of formal regulatory hold points in support of a number of ongoing projects. Specifically the modifications necessary to address the radioactive liquors remaining from previous fuel processing activities on site and, the application of a 'Water Vapour in Nitrogen' technique to address the residual liquid metal coolant within the Dounreay and Prototype Fast Reactors.

The formal review of progress against regulatory issues: The formal review of progress against regulatory issues raised by ONR and any regulatory actions agreed between ONR and DSRL as a result of our regulatory work on site: We consider that DSRL continues to make good progress against the action plans agreed to address regulatory issues raised during previous inspections on site aimed at making improvements to its arrangements. In addition, DSRL continues to implement improvements to their arrangements as appropriate in response to observations made during our site inspection activities.

The formal review of the DSRL's internal regulation activities: ONR continues to have good confidence in DSRL's internal regulation capability and consider that the risks identified to senior management from their activities align with ONR's observations.

Meeting with the Site Safety Representatives: The site inspectors also held a periodic meeting with safety representatives, to support their function of representing employees and receiving information on matters affecting their health, safety and welfare at work.

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. No incidents were notified to ONR during this period.

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 take a range of enforcement actions, to include issuing an Enforcement Notice.

No Licence Instruments, Enforcement Notices or Formal Letters were issued during this period.

5 NEWS FROM ONR

5.1 Enforcement Action

A summary of enforcement action is provided below. Further detail is available on [our website](#).

- On 19 July we served [Improvement Notices on the Atomic Weapons Establishment \(AWE\)](#) relating to the way the company undertakes risk assessments for organisational change which may affect safety.
- Following a court hearing on July 23, 2019 at Plymouth Magistrates' Court, [Devonport Royal Dockyard Ltd \(DRDL\) was fined £666,667](#) and ordered to pay costs of £27,611.82. It follows an incident in September 2018 involving a crane at the Devonport 9 Dock facility. During a lifting operation to disassemble a stack of test weights, the weights became detached and fell towards a worker, narrowly missing him. This was a conventional health and safety incident and there was no nuclear or radiological risk to workers or the public
- On 20 August 2019 we provided [EDF Energy Nuclear Generation Ltd with permission for Reactor 4 at Hunterston B to return to service](#) for the next period of operation. Permission is for up to 16.025 terawatt days, which is approximately four months operation.
- Recognising the good progress made so far, on 16 September 2019 we agreed to [extend two Improvement Notices issued to EDF Energy Nuclear Generation Ltd \(EDF\)](#) from the original compliance date of 16 September, 2019, to 16 December, 2019. The notices were served in January 2019 following an incident at Heysham 1 power station. We have been closely monitoring the work to comply with both notices and will continue to do so to ensure full compliance.

5.2 Regulatory updates

- We have revised our [Licencing Nuclear Installations guidance](#). The revised guidance replaces the 4th edition, published in January 2015. The key changes to the guidance have been made to reflect legal changes as a result of the introduction of new legislation and to include reference to updated processes and procedures.
- Together with the Health and Safety Executive (HSE) we have published a [new Approved Code of Practice \(ACOP\) and guidance](#) to assist dutyholder compliance with the new Radiation (Emergency Preparedness and Public Information) Regulations 2019 (REPPiR).

5.3 Stakeholder Engagement

- On 18 September we held our Finance Industry Seminar which brought together finance colleagues from licence holders to discuss how we plan and forecast our charges, as part of our drive to be open and transparent about how we charge for the regulatory services we provide.
- On the week commencing 23 September, we attended an OECD Nuclear Energy Agency Workshop on Stakeholder Involvement: Risk Communication, as part of a UK contingent which included other regulators, government bodies, supply chain representatives and attendees from nuclear interest and pressure groups. The workshop explored how best to communicate radiation risk and how to ensure stakeholder involvement and participation. Further details about this event can be found here: <https://www.oecd-nea.org/civil/workshops/2019/stakeholder/>
- On the week commencing 16 September we attended the 63rd International Atomic Energy Agency (IAEA) General Conference in Vienna. The annual General Conference is an opportunity for all IAEA Member States to jointly consider matters

related to the IAEA's ongoing work, budget and priorities. This year, over 3000 participants attended, including delegates from 152 of the IAEA's 171 Member States.

5.4 Corporate news

- The [Department for Work and Pensions](#) is looking to appoint two non-executive directors to [ONR's Board](#). More details on the roles and how to apply can be found on the [HM Government Public Appointments website](#).
- On 10 July we published our [gender pay report for 2018/19](#). We are committed to improving diversity by promoting and maintaining an inclusive working environment and are pleased to report positive shifts in the gender pay gap indicators, where our mean gap of 27% has reduced by 8.2% since [our second report in 2017/18](#).

All our latest news is available on our website www.onr.org.uk

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