



**Office for Nuclear Regulation (ONR)
Quarterly Site Report for
Devonport Royal Dockyard
(Devonport Royal Dockyard Ltd and
HM Naval Base Devonport)**

Report for period 1 April to 30 June 2015

Foreword

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

Site inspectors from ONR usually attend Devonport Local Liaison Committee 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 inspectors carried out inspections on the following dates during the quarter:

- 13 – 17 April 2015
- 11 – 14 May 2015
- 20 – 21 May 2015
- 15 – 19 June 2015

Some of the inspections were carried out with inspectors from the Ministry of Defence's internal regulatory organisation, the Defence Nuclear Safety Regulator (DNSR) and the Environment Agency.

2 ROUTINE MATTERS

2.1 Inspections at Devonport Royal Dockyard Ltd (DRDL)

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 provisions of 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. Inspectors seek to judge both the adequacy of these arrangements and their implementation.

In this period, routine inspections of Devonport covered the following:

- examination, maintenance, inspection and testing;
- safety systems, structures and components;
- management of operations including control and supervision;
- staff training, qualifications and experience;
- plant construction and commissioning;
- emergency preparedness;
- incidents on the site;
- radiological protection;
- operating rules and instructions;
- modifications to plant, equipment and safety cases;
- radioactive waste management;
- organisational changes;
- periodic safety review;
- decommissioning;
- industrial safety and meeting safety representatives.

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

2.1.1 Organisational Capability

Under the conditions of the nuclear site licence, DRDL is required to maintain adequate resources to ensure the safe operation of the site and also have arrangements to control any change to its organisational structure (under Licence Condition (LC) 36).

In the reporting period, DRDL has made further progress in refining its understanding of what is needed to achieve sustained compliance with LC36 as part of the development of its Nuclear Safety Improvement Programme (NSIP). ONR has continued to monitor progress against the objectives stated in the Improved Nuclear Baseline workstream of the NSIP. DRDL is developing the arrangements necessary to derive and manage the organisational baseline and is producing a baseline to demonstrate adequate organisational capability within a specific pilot area. ONR plans to inspect LC 36 compliance during the next quarter of 2015.

2.1.2 Site Developments and Future Nuclear Facilities

ONR continues to engage on the project to provide a new defueling capability in the Submarine Refit Complex (SRC), known as 'Future Nuclear Facilities'. This will enable defueling of laid up submarines currently on the Devonport site, together with other submarines when they are taken out of service. The project includes a replacement Reactor Access House (RAH) for removing fuel from the reactor, an updated operational safety case and other safety improvements.

Assembly of the 14 Dock RAH is progressing off the licensed site within the Frigate Refit Complex at 5 Dock. ONR has an intervention project related to the 14 Dock RAH to provide regulatory oversight through established regulatory hold points and through DRDL's compliance with its arrangements for the construction and installation of new plant (LC19) and modification to the design of plant during construction (LC20).

Inactive commissioning of the tooling that will be used during de-fuelling will be carried out in one of DRDL's on-site test facilities.

ONR is also currently assessing DRDL's request for a Category A Change Request (CR) for installation of a modification to the RAH crane. Initially, the submission did not meet ONR expectations but DRDL is developing a Forward Action Plan to facilitate our permission.

2.1.3 Submarine Refit Complex (SRC) Safety Case

DRDL submitted a Category A Change Request (CR) to implement the modern standards approach in 14 Dock, following the completion of a gap analysis against the PSC 220 safety case and its implementation in 15 Dock. The CR was submitted to ONR requesting permission to conduct the next docking in 14 Dock. ONR assessed the safety case documentation supporting the permission.

At the end of ONR's assessment process during a technical meeting held in March 2015, it became apparent to ONR that the safety submission required supplementary information. This triggered further engagement with the licensee and additional ONR assessment. Following this engagement, ONR issued a Licence Instrument which agreed to the implementation of the CR to conduct the docking in 14 Dock.

Regulatory engagement has commenced regarding permissioning of the next docking, and ONR continue to seek further improvements to the safety submission.

2.1.4 9 Dock Safety Case

DRDL's safety case for the forthcoming deep maintenance period of HMS Vanguard in 9 Dock is in the final stages verification and approval. Early engagement activities are nearing completion and ONR is planning for availability if the specialist resources needed to assess the adequacy of the case and permission its implementation.

2.1.5 Emergency preparedness

Where there is a potential for off-site release of radioactivity within the UK that would require implementation of countermeasures, emergency planning areas are designated. ONR determines the area based on two principles:

- A technical assessment of the area likely to be affected by a radiation emergency as defined in the Radiation (Emergency Preparedness and Public Information) Regulations 2001 (REPPiR);
- An assessment of the practical and strategic implications of implementing countermeasures and aiding those members of the public who are likely to be affected by a radiation emergency. This assessment involves consultation with local authorities and includes local demographic and geographical considerations.

ONR now uses the term REPPiR off-site Emergency Planning Area (EPA) to identify the area around a nuclear site where the local authority is required to have a plan for protecting the public in the event of an off-site emergency (Detailed Emergency Planning Zone (DEPZ) has previously been used to define different areas by different stakeholders). The size of the EPA differs site by site in the UK, with due consideration given to individual factors associated with each site.

Following the publication of ONR's revised principles for EPA determination in January 2014, ONR commenced revision of the off-site EPAs to defined maps. The Devonport EPA is currently in the process of being re-assessed by ONR. During the period, ONR has further engaged with DRDL, HM Naval Base Devonport (HMNB(D)), DNSR, Plymouth City Council, and Cornwall County Council regarding the determination of the Devonport EPA and shared its detailed proposals. ONR will continue to engage with the key stakeholders as the EPA determination process progresses.

2.1.6 Licence Compliance Inspection – LC7

The main aim of the planned LC7 compliance inspection was to assess DRDL's progress against the shortfalls detailed in ONR's letter following the LC7 benchmarking and compliance inspection carried out in November 2014. Although DRDL provided ONR with some evidence of improvements in its compliance with LC7 and a strong commitment to deliver further key improvements in the short term, currently ONR still rates compliance with LC7 as significantly below standard. ONR has planned a further LC7 intervention during the next quarter of 2015 to gather evidence of the extent of delivery of the shorter term improvements.

2.1.7 Licence Compliance Inspection – LC9, LC10, and LC12

ONR found that access to site is controlled, instructions are provided regarding what to do in case of an emergency or accident, and the site induction training material and supplementary information meet the requirements of LC9. ONR judged the licensee's arrangements for LC9 to be adequate and meeting relevant guidance.

ONR confirmed that training is being conducted and a systematic approach to training (SAT) is being applied in some areas. However, the application of SAT is not consistent across the organisation and ONR believes that the appointment process for Duly Authorised Persons needs to be more systematic. ONR judged that whilst DRDL is meeting the fundamental requirements of LC 10 and 12, there are procedural and implementation shortfalls that need to be addressed. DRDL has committed to incorporating the compliance inspection findings into

the NSIP Nuclear Baseline and Competency workstream and intend to write to ONR detailing milestone commitments.

2.1.8 Licence Compliance Inspection – LC32 and LC34

DRDL demonstrated adequate application of the waste hierarchy and has undertaken significant work to reduce the radioactive waste legacy on the site. ONR judged that the licensee has a very good understanding of the site waste management capability and its vulnerabilities. No significant accumulation of waste was identified during plant walk-downs and arrangements are in place to minimise, so far as is reasonably practicable, waste accumulations. ONR judged the licensee's LC 32 arrangements to be adequate and meeting relevant guidance.

DRDL demonstrated through the use of photographic evidence a range of leak detection measuring and reporting equipment for the Primary Circuit Decontamination (PCD) plant areas including the use of bunding to provide secondary containment. ONR judged that the fundamental requirements of LC34 are being met within the PCD facility. Following the provision of further information on examination, maintenance, inspection and testing on effluent pipework, ONR judged that the measures taken by the licensee are adequate to ensure so far as is reasonably practicable that no leak or escape of radioactive waste can occur without being detected.

2.1.9 Systems Based Inspection – LCs 10, 23, 24, 27, 28, & 34

During this period, ONR and DNSR jointly carried out a planned system based inspection (SBI) of the Dock Flooding & Dewatering and Day Dock Drainage Systems in 9 Dock. The systems provide a safety function which prevents the unwanted addition or removal of water from the dock. The purpose of SBI is to establish that the basic elements of the facility safety case are implemented in the systems and structures are fit for purpose and will fulfil their safety functional requirements.

The inspection concluded that the basic elements of the facility safety case are adequately implemented, and the systems and structures are fit for purpose and will fulfil their safety functional requirements. The inspection team judged that for the systems inspected compliance with LCs 10, 23, 24, 27, 28 & 34 was adequate.

2.1.10 RRO Fire Safety Audit

ONR raised some issues including the siting and use of SRC first floor workshop offices and DRDL is considering its response. However, generally there were no significant concerns and the audit was rated as adequate.

2.1.11 Radioactive Waste Management

ONR continues to hold regular quarterly meetings with DRDL and HM Naval Base Devonport to monitor progress with a suite of projects and ongoing work relevant to the management of radioactive wastes and decommissioning at Devonport. Good progress is being made to secure suitable disposal routes and minimise waste accumulation at the site. The Disposal and Recycling of Redundant Equipment contract has been extended to characterise remaining legacy waste and redundant plant, this will be supported by a small core team. ONR will continue to monitor the ability of the licensee to control and manage radioactive waste effectively.

MoD is sponsoring a project to dispose of resins from Rosyth and Devonport. An Industry Day was held for interested commercial parties, with representation from DRDL and ONR.

2.2 Inspections at HM Naval Base Devonport

The majority of sites inspected by ONR are licensed under the Nuclear Installations Act 1965 (as amended). HM Naval Base Devonport is not a licensed site although it operates under

Authorisation from the Defence Nuclear Safety Regulator (DNSR). The site is regulated by ONR through other legislation as noted below. This report summarises the inspection and regulatory activities associated with HM Naval Base Devonport, which are co-ordinated with inspections by DNSR. Inspections are undertaken as part of the process for monitoring compliance with:

- the Health and Safety at Work etc Act (HSWA) 1974; and
- Regulations made under the HSWA (for example the Ionising Radiations Regulations 1999, the Radiation (Emergency Preparedness and Public Information) Regulations 2001 (REPPPIR) and the Management of Health and Safety at Work Regulations 1999).

No inspections of the Naval Base were undertaken during the period.

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.

Matters and events of particular note during the period were:

3.1.1 Improvement Notice

In December 2014 ONR served an Improvement Notice (IN) on DRDL following an investigation which highlighted shortfalls in the health and safety arrangements for working with ionising radiations in NEMSFAC. There has been regular engagement on the closure of the IN with the licensee and DRDL undertook to provide ONR with draft arrangements during the next quarter. ONR will assess the adequacy of these arrangements and will determine if arrangements are formalised and implemented. This will be sufficient to close the IN. The licensee plans to pilot the arrangements with final implementation during December 2015. The licensee has promised to write to ONR by 18 December 2015 stating the corrective actions are complete and requesting closure of the IN. ONR has planned a closure inspection for the first week in January 2016. The IN required actions to be taken by 31 January 2016.

3.1.2 Incidents on the site

During a weekly radiological survey of non-active workshop, a piece of equipment was found to have a small amount of fixed contamination on its surface. Initial DRDL investigation confirmed that the item had been transferred from the SRC earlier in the day. A survey of the area where the item was found was carried out and it was confirmed that the work surface and personnel working with and adjacent to the item were not contaminated. DRDL took appropriate containment action and investigated the event. DRDL is introducing radiometric monitoring equipment to reduce the reliance on human intervention and enhance current assurance and clearance monitoring.

4 REGULATORY ACTIVITY

ONR 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. The following LI has been issued during the period:

Table 1

Licence Instruments and Enforcement Notices Issued by ONR during this period

Date	Type	Ref No	Description
27/04/15	LI	557	Agreement to implement modifications solely for the purpose of docking of Tireless in 14 Dock

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

5 NEWS FROM ONR

ONR published its Annual Report and Accounts for 2014/15 on 29 June. The report details key developments during our first year as a public corporation including:

- progress against ONR's Annual Plan 2014/15, including the Chief Nuclear Inspector's annual statement on the safety and security performance of the nuclear industry;
- details of management arrangements and how our resources have been utilised;
- a summary of our governance arrangements;
- the financial statements for 2014/15;
- remuneration of non-executive and executive members of the ONR Board; and
- the Certificate of the Comptroller and Auditor General to the Houses of Parliament, containing an unqualified audit opinion.

Insight into ONR's work as an independent regulator of the nuclear industry can be found in ONR's Quarterly News. The online publication (<http://www.onr.org.uk/onr-quarterly-report.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. For the latest news and updates from ONR visit the website and sign up for our ebulletin (<http://www.onr.org.uk/ebulletin/index.htm>).

6 CONTACTS

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