



**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 2016

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:

- 18 – 21 April 2016
- 9 – 13 May 2016
- 13 – 17 June 2016

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;
- operating rules and instructions;
- operational records
- safety management systems
- modifications to plant, equipment and safety cases;
- radioactive waste management;
- organisational changes;
- decommissioning; and
- 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 Nuclear Safety Improvement Programme (NSIP)

During the period ONR has engaged with DRDL regarding the progress with the NSIP workstreams:

Event management & investigation (LC7): ONR has acknowledged that much good work has been put into DRDL's Concept of Operations initiative and delivery of interim improvements. ONR believes that DRDL can make further improvements if support is provided to wider implementation. DRDL indicated that it is making good progress with the delivery of this aspect of its NSIP and wishes to engage with ONR regarding relevant good practice on Operating Experience Feedback (OEF) information systems and organisational learning.

Nuclear Safety Capability & Competence (LC10, 12, 36): DRDL confirmed that its 3 monthly review cycles for development of the LC36 nuclear baselines were continuing. The baseline for the Submarine Refit Complex (SRC) personnel have been completed including the follow up from learning from experience exercises. Progress is also being made in other aspects of the business and ONR is encouraged that DRDL has established a Business Advisory Group at Head of Output level to monitor the impact of the implementation of the nuclear baselines.

Infrastructure (LC22): DRDL stated that it has developed a new project initiation process and that there is a new associated process map in place for submarine maintenance work in 15 Dock. DRDL has recently produced high-level plans supported by more detailed plans at Facility level to link to the overall Through Life Management Plan (TLMP). DRDL has undertaken to provide information to ONR on the projects using the new process before the planned ONR LC22 inspection in November 2016. DRDL is undertaking a pilot project during the HMS Vanguard maintenance period which uses the new plans and the Project Health dashboard.

Work Authorisation & Control (WAC) (LC23, 24, 26): ONR has acknowledged the improvements to planning of nuclear implicated work, visual management and the release process but believes that that the "nuclear" theme of the work needs to be made more explicit. DRDL explained the progress in implementation of the revised Manageable Tasks (MT) and WAC process for nuclear implicated work. DRDL confirmed that the revised MTs and associated work control process will be used in 9 Dock for activities on HMS Vanguard. ONR expects DRDL to implement improvements to its arrangements for operating limits and conditions and associated instructions as well as implement the revised MT process.

Safety Management Systems: ONR continues to support the SMS work-stream and DRDL is driving ownership and sustained performance. ONR will continue to engage with DRDL to influence the prioritisation and pace of delivery of this work-stream.

Following discussions with ONR, the DRDL Board has tasked a number of Directors and Senior Managers with LC responsibility / ownership to deliver the necessary improvements to LC compliance. ONR intends to monitor the roll out of NSIP during 2016 / 17 via engagement with the relevant LC sponsors and owners.

2.1.2 Site Developments

ONR continues to engage on the project to provide a new defuelling capability in the Submarine Refit Complex (SRC), known as 'Future Nuclear Facilities'. This will enable final defuelling of Laid-Up Submarines (LUSM). The project includes a new Reactor Access

House (RAH) for removing fuel from the reactor, an updated operational safety case and other safety improvements.

The RAH, weighing around 680 Tonnes, was assembled off the licensed site within the Frigate Refit Complex and was transferred and installed into 14 Dock in early May. During its transit, siting and installation, DRDL carried out two readiness reviews which ONR/DNSR observed and provided advice, where appropriate. ONR requested a letter from DRDL confirming readiness to move once the necessary pre-requisites and modifications to 14 Dock had been completed. When the confirmation was received, the hold point was released prior to the RAH entering 5 Basin and then onto the licensed site in 14 Dock.

ONR will continue to provide regulatory oversight of this key hazard reduction project through established regulatory hold points as the RAH progresses towards its inactive commissioning phase.

2.1.3 Submarine Refit Complex (SRC) Safety Case

Resulting from previous regulatory activity ONR seeks further improvements to the SRC plant safety cases. ONR's expectation is that this will be achieved as part of a wider safety case improvement initiative commencing in mid 2016. DRDL has also re-affirmed its commitment to start the removal of the SRC refuelling crane pedestal and other legacy civil structures.

2.1.4 9 Dock Safety Case

In accordance with their safety management arrangements DRDL requested ONR's agreement to implement the revised Plant Safety Case for Vanguard Deep Maintenance Period (VDMP). Following on from a targeted and proportionate assessment, ONR issued a licence instrument at the end of December 2015, agreeing to the implementation of the VDMP safety case. ONR will now continue to monitor DRDL's compliance with the safety case through normal regulatory business. DRDL has almost completed the development of phase 2 of the safety case for refuelling (VDMP(R)). ONR's early engagement has continued through routine interventions and expects receipt of the VDMP(R) safety case for assessment in July 2016.

2.1.5 Emergency preparedness – off-site plan

ONR is reviewing the local off-site Detailed Emergency Planning Zone (DEPZ) for the combined Devonport site and intends to determine a revised off-site Emergency Planning Area (EPA). ONR has had further meetings regarding the extent of the new EPA and has shared its proposals with DRDL, HMNB (D), DNSR, and the involved Local Authorities. ONR is now finalising its assessment of the information that supports the determination of the EPA. ONR's EPA determination is expected to be completed and issued during the autumn.

2.1.6 System Based Inspection

ONR carried out a system based inspection of the Electrical Supplies and 60 Hz Diesel Generators. Based upon evidence examined during this inspection, we consider that the requirements of the safety case have been adequately implemented. There were no findings identified from this inspection that could significantly undermine nuclear safety. However, areas for improvement were identified related to the clarity and provenance of safety functional requirements, equipment labelling, training, control of documentation, particularly that associated with maintenance and testing, and these were conveyed to the operators at the inspection debriefing meeting. ONR will communicate its findings to the licensee in a letter and these matters will be followed up by ONR in due course.

2.1.7 Licence Compliance Inspection – LC32 (Accumulation of radioactive waste)

ONR and EA carried out a joint inspection of DRDL's arrangements made under Licence Condition 32 (Accumulation of radioactive waste) and their implementation. The focus of the

inspection was control of contaminated items and management of legacy and operational radioactive waste. The targeted areas were 9 Dock, Nuclear Support Facility and Nuclear Utilities Building in SRC.

DRDL demonstrated a good understanding of its accumulations of legacy and operational wastes. Significant progress has been made to dispose of legacy wastes. DRDL is disposing of operational waste in line with good practice. However, no plans are in place to forecast waste arisings. Comprehensive and resourced plans for update of strategic documents and facilities relating to radioactive waste management are in place. ONR inspectors concluded that DRDL's compliance with LC32 is adequate and no formal action is necessary.

2.1.8 Licence Compliance Inspection – LC25 (Operational Records)

ONR inspected DRDL's arrangements made under Licence Conditions LC 25 (Operational Records) and their implementation. We are of the opinion that the top level management system policy, process and supporting guidance documents for Nuclear Document Management are adequate. However, we found that the implementation of these arrangements within the organisation is inconsistent and there has been limited stakeholder engagement in the process. Individuals who hold the post of Responsible Manager were aware of their responsibilities for records management. However, local arrangements had not been established in all areas sampled in accordance with DRDL's nuclear document management process. An area of good practice was observed with the Health Physics records. Evidence was provided of implementation of the full process described in DRDL's arrangements, and the backlog of legacy records has significantly reduced.

Due to the inconsistency of local implementation ONR was not convinced that the licensee is capturing, archiving and has the ability to retrieve all operational records in compliance with the requirements of LC25. We judged that the licensee's arrangements for ensuring that adequate records are made of the operation, inspection and maintenance of any plant which may affect safety require improvement. A regulatory action has been placed on the licensee to address these shortfalls against relevant good practice.

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 section of the 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 (REPPIR) and the Management of Health and Safety at Work Regulations 1999).

No inspections were conducted by ONR at the Naval Base 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 of particular note during the period were as follows:

Incidents

During the period there were several incidents notified to ONR associated with non-compliance with Identified Operating Instructions (IOI) for the control of dockside cranes. The events included the inappropriate location of flammable liquids and combustible material on the dockside, crane operations over the submarine and vehicle movements which did not comply with the volume of liquid in an active waste tank, and uncontrolled vehicle access. Compliance with the IOIs is to prevent the hazards of vehicle impact and vehicle fire from affecting the dockside cranes.

ONR met with the DRDL to discuss recurring IOI non-compliance at Devonport. ONR stated that there has been an adverse trend identified in relation to failure to comply with Operating Limits and Conditions (OLCs) on a regular basis but commended DRDL on the positive reporting culture of the site. ONR confirmed that it had undertaken a review and independent analysis of the DRDL investigations into the events to identify themes where opportunities for improvement exist.

DRDL acknowledged that there could be an immediate benefit by better articulation of the limits and conditions contained within the IOIs. In the short term, DRDL intends to incorporate the learning from the events into its weekly Time Out For Safety (TOFS) briefings. DRDL also confirmed that the Nuclear Safety Leaders' Forum (NSLF) is to be reinstated to consider the investigation findings from the IOI events.

ONR acknowledged that a review by DRDL of the existing suite of IOIs and their revision would be challenging in the short term. DRDL confirmed that any programme for IOI revision would need linkages to its commitments, to ONR's expectations and would require timely implementation. ONR stated that it would require a formal review of implementation of DRDL's IOI programme to be carried out after three months and that ONR would then re-assess its position with respect to any potential formal action.

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:

Licence Instruments and Enforcement Notices Issued by ONR during this period

Date	Type	Ref No	Description
6/5/16	LI	562	Acknowledgement to implement a modification for mobile crane operations adjacent to 9 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

Chief Nuclear Inspector's annual statement

ONR published its Annual Report and Accounts 2015/16 on 7 July. As well as reporting on ONR's performance, the report includes the Chief Nuclear Inspector's annual statement, which provides a judgement on the regulatory attention necessary for each licensed site, dependent on the level of hazard and risk posted by the facility. The Annual Report and Accounts can be viewed on the ONR website.

New regulatory structure

ONR has recently reviewed its organisational arrangements to ensure that our regulatory structure is appropriately focused to deliver front-line regulation over the next few years. To maintain effective and proportionate regulation, and to address potential and actual imbalances in the current workloads of the programmes, we have created three nuclear safety programmes, each led by a Deputy Chief Inspector. These programmes are:

- A new reactors programme dealing with design assessment, licensing and construction of civil reactors.
- An operating facilities programme dealing with operating reactors, defence sites and other operating facilities.
- A Sellafield, decommissioning, fuel and waste programme dealing predominantly in decommissioning and waste.

You can view ONR's [organisational structure](#) and full [regulatory structure](#) on our website.

Chief Nuclear Inspector Summary Plan for 2016/17

The CNI Summary Plan outlines high level regulatory milestones to deliver ONR's Strategic Plan to 2020 and ONR's approach to the delivery of safety and security regulation across the UK's nuclear reactors and facilities. It was published on 11 July and is available on the ONR website.

Regulation Matters Magazine

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. 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>).

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