



**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 October to 31 December 2017**

**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 Devonport 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 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 quarter:

- 2 – 6 October
- 6 – 10 November
- 20 – 21 November
- 4 – 8 December
- 12 – 14 December

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

Inspections are undertaken as part of the process for checking 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 commitments to address the issues, and the inspectors will monitor progress during future visits. If necessary, ONR will take formal regulatory enforcement action to ensure that appropriate remedial measures are implemented to reasonably practicable timescales.

## **PERMISSIONING**

No Licence Instruments were issued to Devonport Royal Dockyard Limited (DRDL) during the period.

The following sections provide an update on items previously covered in ONR's site reports, and relevant new information.

## **DEVONPORT NUCLEAR SAFETY STRATEGY**

The Nuclear Safety Improvement Programme (NSIP) is currently the primary means through which DRDL intends to improve its performance such that it returns to requiring 'routine regulatory attention. The pace of delivery has been slower than our expectations and more work is required to focus on delivery and implementation. In addition DRDL is currently developing a new ten year nuclear safety strategy. ONR is currently engaging with DRDL on the content and time-scales and how this fits with the NSIP work streams.

Following a review of DRDL's safety performance and our regulatory strategy for the site, ONR has developed a revised approach which enhances the regulatory presence on the site, and focuses on targeted areas to enable DRDL to move out of 'enhanced regulatory attention' at the earliest opportunity.

## **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 final defueling of Laid-Up Submarines (LUSM).

ONR is regulating the new Reactor Access House (RAH) project through agreed regulatory hold points, and through DRDL's compliance with its arrangements for modification to the design of plant during construction (LC20) and commissioning (LC21).

ONR continues to engage with DRDL on 'Future Docking Facilities'. This work is focused on ensuring that the dockyard has sufficient capacity and facilities to deliver the longer term submarine programme safely. Work is being undertaken on developing a "plant based safety case", which aims to maximise the safety credit from the boat safety systems, to optimise the infrastructure upgrade requirements.

## **SUBMARINE REFIT COMPLEX**

ONR continues to seek further improvements to the Submarine Refit Complex (SRC) plant safety cases as a result of previous permissioning activities. ONR's expectation is that this will be achieved as part of a wider safety case improvement initiative which commenced in 2016.

DRDL has started the removal of the SRC crane pedestal. This is expected to be completed before the end of the current 15 Dock outage in June 2018. The removal of the SRC crane pedestal is a significant piece of hazard and risk reduction work.

ONR is monitoring safety improvements in the Nuclear Utilities building (NUB) through the quarterly radioactive waste meetings. DRDL has a detailed project plan and is currently carrying out inspections to scope the work needed. Timescales in the plan are in line with the commitments set out in a letter to ONR sent by DRDL in June 2017. The NUB safety case will be sent to ONR in February 2018 with implementation in June 2019. ONR will decide the permissioning strategy in due course, however due to the low safety significance associated with the safety case it is likely that we will accept for information. The modification to implement the case will be category B.

## **9 DOCK**

In July 2016, DRDL submitted for ONR assessment the phase 2 safety case for refuelling HMS Vanguard. ONR completed its assessment of the safety submission and agreement to the refuelling activity was agreed in April 2017. The Reactor Access House has now moved into position over the boat. This is in advance of re-fuelling activities due to commence later in the year.

Two improvement notices served on 9 Dock in August have now been closed following an inspection in December 17. (See Improvement Notices section below).

## **LICENCE CONDITION 7 - INCIDENTS ON THE SITE**

ONR carried out a planned LC7 (incidents on site) compliance inspection. The inspection followed up issues identified from previous inspections, and confirmed that progress with the implementation of improvements in arrangements has been maintained, and that DRDL now broadly meets the regulatory expectations.

## **LICENCE CONDITION 11 – EMERGENCY ARRANGEMENTS**

ONR and the Defence Nuclear Safety Regulator (DNSR) jointly assessed the annual Level 1 on-site emergency exercise. ONR considered that DRDL's aims and objectives for the emergency exercise were appropriate and that a suitably challenging scenario had been defined.

Taking into account the exercise scenario and all the team's exercise assessments, ONR considered the exercise provided an adequate demonstration of the site's emergency arrangements.

## **LICENCE CONDITION 23 – OPERATING RULES (OR), AND LC24 OPERATING INSTRUCTIONS**

The LC23 compliance inspection examined the implementation of DRDL's LC23 arrangements to inform progress against an extant regulatory issue. ONR found that personnel did understand the importance of conditions and limits; however a lack of clarity in the wording or information in some of the ORs sampled affects implementation and compliance.

Whilst improvements were evident in the area inspected, delivery of wider improvements is required to facilitate sustained LC23 compliance. This will continue to be monitored through the existing regulatory issue.

ONR took confidence in that DRDL recognises that LC24 remains an area where improvement is required, and is being managed through the Nuclear Safety Improvement Programme (NSIP). ONR welcomed DRDL's commitment to develop corporate LC24 guidance which seeks to improve the quality and consistency of operating instructions across the site. Progress will again be monitored via the extant regulatory issues on this topic.

## **LICENCE CONDITION (LC) 32 (ACCUMULATION OF RADIOACTIVE WASTE), AND 34 (LEAKAGE AND ESCAPE OF RADIOACTIVE MATERIAL AND RADIOACTIVE WASTE)**

In the areas inspected, ONR found that both solid and liquid radioactive materials and waste are kept in appropriate and well maintained facilities. The facilities are equipped with suitable secondary containment and leak detection systems.

During the inspection, ONR inspectors identified a radiological effluent pipe running through a pipe trench that full of water. Whilst there was no evidence to indicate that any radioactive material had leaked from the effluent pipeline, the matter was judged by ONR to be a shortfall against the requirements of LC34. A regulatory issue has been raised and ONR continues to monitor DRDL's immediate and longer term management of the issue.

## **ENGAGEMENT WITH SAFETY REPRESENTATIVES**

The site inspection team held a periodic meeting with safety representatives. There were no issues raised that required regulatory follow-up.

## **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 the following legislation:

- 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).

There were no inspections undertaken by ONR 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.

## **9 DOCK IMPROVEMENT NOTICES**

Following a number of crane related incidents that occurred between May and July on the 9 Dock facility, ONR served two Improvement Notices on DRDL. The two improvement notices were served on 01 August, under the Lifting Operations and Lifting Equipment Regulations (planning of lifting activities) and LC28 (Examination, inspection, maintenance and testing).

ONR held a number of engagements with DRDL to monitor and inspect improvements made to the management of lifting operations and crane maintenance on the 9 Dock facility. This included review of operational and maintenance instructions, and site based inspections focusing on implementation of the new management arrangements.

Based on these engagements and inspections, ONR was satisfied that DRDL had adequately demonstrated that enhancements made to control and supervision arrangements, written instruction quality and planning processes, had adequately addressed the compliance gaps

identified in the improvement notices. DRDL has now completed the improvements necessary and addressed the requirements satisfactorily and ONR has closed the Improvement Notices.

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

#### 5 NEWS FROM ONR

##### 5.1 New nuclear power station design approved

The UK Advanced Boiling Water Reactor (UK ABWR), designed by Hitachi-GE, is suitable for construction in the UK, the regulators confirmed following completion of an in-depth assessment of the nuclear reactor design. The Office for Nuclear Regulation (ONR), the Environment Agency and Natural Resources Wales, the regulators who undertake the Generic Design Assessment of new reactor designs, are satisfied that this reactor meets regulatory expectations on safety, security and environmental protection at this stage of the regulatory process.

ONR has issued a Design Acceptance Confirmation (DAC) and the environment agencies have issued a Statement of Design Acceptability (SoDA) to Hitachi-GE.

##### 5.2 Step 2 of nuclear reactor assessment

We also announced on 16 in November that we are progressing to the next phase of our assessment of General Nuclear System Ltd's UK HPR1000 reactor technology. This means we will now begin the technical assessment phase. Additionally, all members of the public can give their views and find out more information about the design by going to UKHPR 1000 website at [www.ukhpr1000.com](http://www.ukhpr1000.com)

##### 5.3 ONR response to BEIS impact assessment

The Department for Business, Energy and Industrial Strategy (BEIS) has recently published its Impact Assessment of the Nuclear Safeguards' Bill and that makes reference to ONR's regulation.

We contacted BEIS to clarify two points within the document as part of our ongoing constructive engagement with them to develop a domestic safeguards regime as part of exiting Euratom.

The first is that ONR regulates the nuclear industry, it does not provide services to it. Secondly, the Government's policy has developed since the assessment was undertaken and the intention is to put in place a regulatory framework which is robust and as comprehensive as Euratom. This means that we are not in a position to identify potential efficiencies in our regulatory approach at this stage.

As we support BEIS in its development of secondary legislation, we will provide advice to the Government to inform the anticipated impact assessment for nuclear safeguards regulation.

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 visit the website and sign up for our ebulletin (<http://www.onr.org.uk/ebulletin/index.htm>).

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