



**HM NUCLEAR INSTALLATIONS INSPECTORATE**  
**DEVONPORT ROYAL DOCKYARD AND HM NAVAL BASE**  
**1 OCTOBER 2004 – 31 DECEMBER 2004**

**FOREWORD**

This report is issued as part of the Health and Safety Executive's commitment to make information about inspection and regulatory activities relating to the above site available to the public. It is for distribution to members of the Devonport Local Liaison Committee and covers activities associated with the regulation of safety at Devonport Royal Dockyard and HM Naval Base. These reports are distributed quarterly and are available from the Internet at:

[www.hse.gov.uk/nsd/index.htm](http://www.hse.gov.uk/nsd/index.htm)

The Site Inspector of HM Nuclear Installations Inspectorate attends LLC meetings and will be happy to respond to any questions raised there by members. Any other person wishing to enquire about matters covered by this report may contact HSE's Nuclear Safety Directorate Information Centre on 0151 951 4103.

## **A. DEVONPORT ROYAL DOCKYARD LIMITED**

### **1. INSPECTIONS**

The Nuclear Installations Inspectorate (HSE-NII) site inspectors made visits to Devonport on the following dates during this quarter:

18, 19, 20, 21, 26, 27, 28 October 2004  
22, 23, 24, 25, 26 November 2004  
1, 2, 8, 9, 10, 13, 14, 15, 16 December 2004

Other members of the HSE-NII, including specialist inspectors visited the Devonport site during the period. The HM Chief Inspector of Nuclear Installations visited the site in October together with senior staff from HSE's sponsoring government department, the Department of Work & Pensions. An overview of managing nuclear safety across the site was provided by DRDL together with an inspection of the facilities and visit to HMS Triumph. Discussions took place on current and future operations, the Staged Improvement Plan (SIP), D154 Phase 3 project and emergency arrangements.

A Deputy Chief Inspector attended a steering group meeting to discuss the Devonport Staged Improvement Programme (SIP) and Specialist Inspectors completed inspections in relation to:

- PCD Facility
- 9 Dock Readiness
- Emergency Exercise Short Sermon

Some of the inspections were carried out with inspectors from the Ministry of Defence internal regulatory organisation, the Naval Nuclear Regulatory Panel (NNRP).

### **2. ROUTINE MATTERS**

Inspections are undertaken for the purposes of monitoring compliance with the conditions attached by HSE-NII to the nuclear site licence, together with other relevant statutory provisions of the Health and Safety at Work etc. Act (1974).

#### **2.1 Compliance with Conditions attached to the Nuclear Site Licence**

HSE-NII has continued to monitor implementation of the new maintenance regime for nuclear facilities, plant and equipment as required by Licence Condition 28. We are now satisfied that DRDL's arrangements have been improved to a standard that will allow us to approve the top tier maintenance policy document. HSE-NII has issued a Licence Instrument to DRDL specifying the licensee to submit its Maintenance Policy for Approval. An Approval is used by HSE-NII to freeze the licensee's arrangements such that changes cannot be made without further consideration by the Inspectorate. Detailed plant specific changes to the

maintenance schedules are subject to the licensees own due process and are monitored for compliance during routine site inspections

## **2.2 Compliance with the Ionising Radiation Regulations**

No specific inspections have been completed during this period.

## **2.3 Inspection of major project work**

### **9 Dock Readiness Inspections for Commencement of HMS Victorious LOP(R)**

An inspection of 9 dock maintenance and modification arrangements was completed to ensure the necessary work would be completed prior to the commencement of the HMS Victorious Long Overhaul Period and Refuel (LOP(R)). We found the maintenance performance to be robust with no overdue items. In respect of implementing and controlling modifications we noted that although the expected improvements and changes had been put in place a significant number remained to be fully closed out. We requested DRDL to address this matter in relation to the forthcoming docking activity. Further readiness inspections will be completed in advance of the docking of HMS Victorious in early 2005.

### **9 Dock Primary Circuit Decontamination (PCD) Facility**

The new 9 Dock PCD facility is required for future dockings to reduce worker radiation doses to acceptable levels. An inspection of the PCD facility was completed focussing on the control of software and hardware modifications. The arrangements for control of software changes were considered robust. Some areas for improvement to the hardware change control system were identified particularly in respect of the defect record system and the process to close out changes. We are still awaiting receipt for assessment of the licensees decision criteria matrix in order that following PCD the adequacy of decontamination process can be judged and worker radiation dose reduction demonstrated to be ALARP. In recognition of the significant worker radiological safety issues we are controlling the commissioning and initial use of the PCD facility with regulatory holdpoints.

### **Staged Improvement Programme (SIP)**

A meeting of the SIP Senior Steering Group took place in December 2004. The members supported the latest issue of the SIP which defines the continuing improvements to nuclear safety related facilities at Devonport. The arrangements for delivering the SIP and the process for securing financial approval for the project were discussed. We completed an assessment of the Future Nuclear Facilities Preliminary Safety Report and a Licence Instrument Acknowledgement was issued to DRDL allowing the project to proceed to the detailed implementation phase. We were satisfied that the main elements of the improvement programme were properly defined within the safety report, however some areas required further development to reduce overall project risk. HSE-NII's judgement was that there was greater benefit from proceeding with delivery of the overall scope of improvements rather than completing further refinements.

The improvements are primarily focused on the Submarine Refit Complex that currently deals with S & T class boats. The overall upgrade is expected to be delivered via the D154 Phase 3 project within the period 2005–2008. HSE-NII is pressing for delivery of this programme.

## **Radioactive Waste Management**

We reviewed DRDL's programme for dealing with the ion exchange resin wastes some of which is currently stored in Modified Magnox Flasks (MMF's). The MMF storage arrangement is safe but should be improved to meet longer term radioactive waste management expectations. We noted that the programme for dealing with the waste had slipped and DRDL has been requested to explain the delays and to produce an integrated and robust programme to empty the MMF's and process the resin waste. HSE-NII will continue to monitor the matter.

## **2.4 Conventional Health and Safety**

HSE-NII leads on the inspection of conventional safety with support from inspectors in the HSE Field Operations Directorate (FOD) based in Plymouth.

### **Review Meeting**

The HSE-NII site inspector and HSE-FOD inspector's held a meeting to review conventional health & safety across the licensed site and naval base. MoD, DML and Safety Representatives from the site put forward their perspectives and HSE defined its priorities for the site. MoD and DML agreed to forward their safety objectives to HSE such that HSE inspections can be targeted to reinforce the site's priorities as well as furthering HSE's safety objectives and seeking to further improve health & safety performance across the site.

## **3. NON-ROUTINE MATTERS**

### **3.1 Incident investigations**

During the course of routine business on site, events/possible problems arise or are brought to HSE-NII inspector's attention. These are followed up as considered appropriate at the time. During this period HSE-NII inspectors have investigated the following incidents:

#### **Nuclear Transfer Route (NTR) Rail Tug Unit (RTU) Derailment**

Following the derailment of a rail tug unit in May 2004 we have followed up the licensee's recovery process to re-validate the design basis operational safety case for new and irradiated fuel movements using the on site rail system. The licensee has completed a thorough design revalidation process engaging rail system specialists and completing independent reviews as necessary. The areas identified for improvement, including an improved maintenance plan, have been implemented and our inspections concluded the final stage of the recovery process was complete for the rail system making up the nuclear transfer route on the licenced site. We also confirmed through the Naval Nuclear Regulatory Panel that work has been completed to ensure the rail system on the naval base to the interface with the national network is maintained to acceptable standards for nuclear freight movements.

### **3.2 Health Physics Monitors Industrial Action**

An industrial dispute occurred during the period involving Health Physics Monitors. DRDL management used non-industrial staff to provide cover. HSE-NII inspectors monitored the position closely, ensuring the licensee was maintaining minimum emergency staffing requirements and adequate cover for ongoing work. The dispute was resolved in the short term and we will monitor any further developments that could affect nuclear safety.

### **3.3 Nuclear Safety Advisory Committee**

The Health & Safety Commission's (HSC) Nuclear Safety Advisory Committee (NuSAC) made a visit to the Devonport Royal Dockyard in November. NuSAC's stated role is to advise the HSC and when appropriate, the secretary of state, on major issues affecting the safety of nuclear installations. NuSAC makes regular visits to nuclear licenced sites in the UK to monitor the licensees safety performance and the regulatory process. During the visit the committee members had a tour of the Submarine Refit Complex, the Devonport Accident Control Centre and a visit to a decommissioned nuclear submarine. Further detail and reports on the work of NuSAC can be found on the HSE website at the following address [www.hse.gov.uk/aboutus/hsc/iacs/nusac](http://www.hse.gov.uk/aboutus/hsc/iacs/nusac)

## **4. REGULATORY AND ENFORCEMENT ACTIVITY**

### **4.1 Regulation**

As part of its regulation under the nuclear site licence HSE-NII issues formal regulatory documents, which include Consents, Approvals, Acknowledgements, Specifications and Notifications.

The following regulatory documentation was issued during the quarter:

- i) Licence Instrument Number 500 was issued to Devonport Royal Dockyard Limited providing the Health & Safety Executives Specification to the Licensee to submit for approval the document titled: MAINTENANCE POLICY
- ii) Licence Instrument Number 502 was issued to Devonport Royal Dockyard Limited providing the Health & Safety Executives Acknowledgement of the document titled: FUTURE NUCLEAR FACILITIES - PRELIMINARY SAFETY REPORT

### **4.2 Enforcement**

No formal enforcement notices have been issued during the quarter.

## **B. Ministry of Defence**

### **1. INSPECTIONS**

HSE-NII site inspectors and specialist inspectors visited HM Naval Base on a number of occasions during this period. The HM Chief Inspector of Nuclear Installations visited the site in October.

A number of meetings were held with MoD personnel, primarily relating to the MoD's arrangements for responding to nuclear and radiological emergencies, general nuclear safety matters across the Naval Base and the Staged Improvement Programme (SIP).

### **2. ROUTINE MATTERS**

MoD activities, at HM Naval Base and Devonport Royal Dockyard, are inspected under the Health and Safety at Work etc. Act (1974), the Radiation Emergency Preparedness and Public Information Regulations 2001, (REPPIR), and the Ionising Radiation Regulations 1999.

#### **2.1 Compliance with the Ionising Radiations Regulations 1999**

No specific inspections relating to this topic were carried out during the period.

#### **2.2 Compliance with Radiation (Emergency Preparedness and Public Information) Regulations 2001, (REPPIR)**

##### **2.2.1 Emergency Exercise Short Sermon 04**

HSE-NII inspectors witnessed the Grade A Emergency Exercise Short Sermon 04 which took place on 24, 25 November 2004. The exercise tested the HM Naval Base 'DEVNUSAFE' on site emergency plan and the 'DEVPUBSAFE' off site emergency plan which is owned by Plymouth City Council. There was participation up to national level to demonstrate both the immediate on/off site response and later remediation phases that would be necessary to deal with a significant nuclear incident.

HSE-NII assisted the MoD NNRP in developing the arrangements for, participating in and observing the exercise. HSE-NII inspectors participated in playing roles at the on site and off site centres and lead the off site assessment. Overall, the on and off site exercise response was judged to be an adequate test of the emergency arrangements. A number of learning opportunities were identified, progress against which will be reviewed at future training and demonstration exercises.

### **3. NON-ROUTINE MATTERS**

### **3.1 Laid Up Submarines**

HSE-NII has continued to monitor progress towards developing a detailed strategy for dealing with laid up submarines at Devonport prior to the commencement of decommissioning. A multi stakeholder workshop is to be held early in 2005 to review options prior to the development of firm proposals. At present HSE-NII is satisfied the laid up submarines are stored safely at Devonport.

## **4. REGULATORY AND ENFORCEMENT ACTIVITY**

### **4.1 Enforcement**

No formal enforcement notices were issued by HSE-NII during the period.