



**Office for Nuclear Regulation (ONR)
Quarterly Site Report for
Rolls-Royce Marine Power Operations Limited
(RRMPOL) Raynesway, Derby
Nuclear Fuel Production Plant (NFPP) and Neptune
Reactor Licensed Sites**

Report for period October 2016 to December 2016

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 quarterly to members for the Rolls-Royce Local Liaison Committee and are also available on the ONR website (<http://www.onr.org.uk/llc/>).

Site inspectors from ONR usually attend Rolls-Royce 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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INSPECTIONS

1 DATES OF INSPECTION

The ONR site inspector made inspections on the following dates during the quarter:

- 04-06 October 2016
- 02-03 November 2016
- 08 November 2016
- 30 November 2016
- 01 December 2016
- 07-08 December 2016

Other ONR inspectors participated in interventions with the licensee on the following dates in the quarter:

- 05 October 2016
- 02-03 November 2016
- 30 November 2016
- 01 December 2016
- 07 December 2016

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

In this period, routine inspections of the licensed sites covered the following:

- management of operations including control and supervision;
- emergency preparedness;
- periodic safety review.

In general, ONR judged the arrangements made and implemented by the site in response to safety requirements to be adequate in the areas inspected. However, where improvements were considered necessary, the licensee made satisfactory commitments to address the issues, and the site inspector 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.

Copies of the executive summaries of intervention records are available through the ONR website at: (<http://www.onr.org.uk/intervention-records/>).

2.2 Unannounced inspection of control and supervision of operations (LC23) and the availability of emergency response personnel (LC11).

The site intervention strategy includes an unannounced inspection where the site inspector arrives at site without prior warning that an inspection is being carried out. An unannounced inspection of control and supervision (LC 26) and the emergency organisation (LC11) was carried out on the production plant. ONR judged that control and supervision was of a good standard and that emergency organisation personnel were either available or on call. No shortfalls were identified and no corrective action was required.

2.3 Inspection of arrangements for periodic Review

An LC 15 (Periodic review) compliance inspection was carried out and ONR examined the arrangements for the Neptune periodic safety review which is currently being undertaken. The inspection team judged that the PRS process was adequate but found that the detailed knowledge of how to conduct the PRS resides with the individuals involved and is not fully described in a documented procedure. ONR placed an action on RRMPO to review the adequacy of the LC 15 arrangements and ensure the level of detail is sufficient to ensure subsequent periodic reviews are conducted to a consistent standard.

2.4 Level 1 Demonstration Exercise

A team of ONR inspectors witnessed RRMPO's annual level 1 demonstration emergency exercise 'FOSSA'. In response to the scenario, the site established its emergency organisation promptly and completed a muster of site personnel in a timely manner, correctly identifying the missing persons. Command and control was judged to be satisfactory with appropriate focus on protecting the public and site personnel. Emergency response teams successfully recovered and treated a number of casualties and ONR judged their performance to be of a good standard. ONR did not identify any regulatory issues or actions. At the closing meeting RRMPO presented an objective assessment of the exercise and identified a number of opportunities for improvement. ONR concurred with this assessment. No formal action was required and ONR judged it overall to be a satisfactory demonstration of the emergency arrangements on the site.

2.5 Other work

In response to inspection findings in 2015 RRMPO has been improving the access and egress arrangements for the controlled area. ONR engaged with RRMPO and our radiation protection specialist found that the change-room has been significantly improved and judged the design is adequate and broadly compliant with the Nuclear Industry Code of Practice. The barrier training given to personnel was considered satisfactory and the steps undertaken before exiting the controlled area were judged to be adequate. ONR concluded that when the arrangements have been suitably documented the shortfalls identified by the inspection will have been resolved.

ONR has assessed RRMPO's hazard identification and risk evaluation assessment, which was carried out in accordance with the Radiation (Emergency Preparedness and Public Information) Regulations 2001. ONR concurs with the assessment and is in the process of making a determination of an off-site emergency planning area. Consultation with Derby City Council (DCC) and RRMPO has now concluded and ONR's project assessment report will be sent for comments on factual accuracy and security before the determination is made formally by a letter to DCC and RRMPO.

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:

RRMPOL notified ONR that the Neptune test reactor was shut down in accordance with its operating procedures following initiation of a fire alarm in the building. Operators confirmed the reactor was safely shut down before leaving for the muster point. RRMPOL's detailed investigation identified a failing electrical component in the power supply had led to sufficient smoke being generated to initiate the fire detector, but there was no fire. It was clear from ONR's review of the incident that the reactor shut down safely as intended, and the operators correctly followed procedures with no adverse effect on nuclear safety.

Two incidents were also notified to ONR whereby items with very low levels of radioactive contamination were found outside their normal designated area. The amounts of activity involved were only slightly above the licensee's threshold for declaring items free of contamination so the incidents did not represent a significant safety matter but did demonstrate a local loss of control of the material. RRMPOL has taken these incidents very seriously and, in accordance with their own arrangements, is taking corrective action to help prevent a recurrence. In due course ONR will examine the efficacy of the actions taken.

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.

There were no LIs or Enforcement Notices issued during the period.

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

5 NEWS FROM ONR

External Stakeholder events

On 1 November 2016, ONR held its Industry Conference in London, which brought together senior leaders from across the nuclear sector. We were pleased to welcome Baroness Neville-Rolfe DBE CMG, Minister of State at the Department for Business, Energy and Industrial Strategy (BEIS) to this year's conference who delivered the keynote speech. A special edition of Regulation matters has been published following the conference, which provides a summary of how the day unfolded.

As part of our commitment to engage regularly with all our stakeholder groups, we were pleased to welcome 17 representatives from a number of organisations to our ONR / NGO forum on 30 November in London. The event provided an opportunity for NGO representatives to meet with a number of senior ONR leaders, including our Chief Executive and Chief Nuclear Inspector, to discuss a number of priority issues.

Regulation Matters

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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