



**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 January 2017 to March 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 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:

- 23 & 24 January 2017
- 14, 15, 20, 21 & 22 February 2017
- 15, 16, 17, 27, 29 & 30 March 2017

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

- 18 & 23 January 2017
- 14 & 22 February 2017
- 16 & 27 March 2017

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:

- examination, maintenance, inspection and testing;
- management of operations including control and supervision;
- staff training, qualifications and experience;
- plant construction and/or commissioning;
- quality assurance and records;
- fire safety

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 Fire Safety Inspection.

An ONR Specialist Inspector conducted a general fire safety inspection, the inspection focused on the themes of fire safety management and practical fire safety provision. A number of issues from previous fire safety inspections were reviewed to confirm that adequate consideration had been given to them by the Licensee. The inspection concluded that generally the fire safety arrangements were adequate and no formal action was sought from RRMPO.

2.3 LC 19 (Construction or installation of new plant) Compliance Inspection

On 23 January an ONR team consisting of a civil engineering specialist, quality management specialist and the nominated site inspector conducted an LC 19 (Construction or installation of new plant) and build assurance inspection on the new nuclear facilities. The inspection was rated green and no formal action was sought. RRMPO accepted a number of minor improvement actions.

2.4 Systems Based Inspection of the Criticality Control System

An inspection of the criticality control system found that the basic elements of the facility safety case as implemented in safety systems and structures are fit for purpose and will fulfil their safety functional requirements. The inspection noted that to realise immediate safety benefits in safety analysis the facility safety case was issued last year without documentation specifying revised maintenance requirements. RRMPO plans to issue this documentation within a few months and this will be monitored by ONR. Overall the inspection team judged the system adequately fulfils the requirements of the safety case.

2.5 LC 21 (Commissioning) Compliance Inspection

A planned compliance inspection of LC 21 (Commissioning) was carried out on the new nuclear facilities. The inspection judged the arrangements for commissioning these facilities were adequate and that they had been appropriately implemented. Satisfactory governance arrangements were in place and personnel were knowledgeable of their roles and responsibilities. The commissioning documentation and records sampled during the inspection were of a good standard. This inspection has provided ONR with confidence that new build activities are being suitably controlled and carried out in accordance with the site licence conditions. However, the LC 21 arrangements are currently written specifically for the commissioning of the new facilities and do not include arrangements for commissioning new or modified plant in the existing facilities. RRMPO stated this is an omission as commissioning is carried out to the same standard in all areas on the licenced sites and accepted an action to resolve the deficiency.

2.6 Other work

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 (REPPPIR). RRMPO carried out the assessment in line with the latest guidance on the foreseeability of radiation emergencies and this led to the assessment concluding for the first time that an offsite nuclear emergency is foreseeable. ONR concurs with the assessment and recognises the hazard presented by the site has not changed. Following the outcome of the assessment REPPPIR requires ONR to determine an appropriate off-site emergency planning area and when this is done requires Derby City Council (DCC) to make and implement a formal off-site emergency plan. This should be straight forward as there is already a voluntary plan in place.

Consultation with DCC and RRMPO has now concluded and ONR will formally make the determination of the emergency planning area by a letter to DCC and RRMPO in June 2017.

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 of two incidents where the requirements of criticality clearance certificates had not been fulfilled. In both cases the limits on the certificates were set just above the operational levels and several safety layers remained in place providing satisfactory defence in depth. Therefore the incidents themselves did not have any safety significance. However, RRMPOL has taken the loss of control very seriously and investigated the root cause of the events. ONR is content that the corrective action will resolve the shortfalls in control.

ONR's last LLC report described two incidents where RRMPOL notified ONR whereby items with very low levels of radioactive contamination were found outside their normal designated area. Corrective action for these incidents included reassurance monitoring on the licensed site which identified a few isolated examples of low level contaminated items being outside the designated area. RRMPOL has taken these incidents very seriously and has now appointed a waste improvement manager who has been given responsibility for resolving the shortfalls by implementing a programme of work to deliver the required improvements in safety culture, processes and facilities. In due course ONR will examine the efficacy of the improvement programme 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

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>).

New reactors update

ONR received a request from Government to begin the Generic Design Assessment process for the UK HPR1000 in January. The reactor is now in Step 1 of the GDA process.

On 30 March, ONR issued Design Acceptance Confirmation for the AP1000@nuclear reactor, designed by Westinghouse. The regulators required 51 GDA issues to be resolved before confirming suitability of the design.

ONR granted its first consent for the start of construction at Hinkley Point C licensed site. The consent covers the placement of the structural concrete for the first nuclear safety-related structure at the site.

On 31 March, Horizon Nuclear Power submitted its application for a nuclear site licence to build and operate two UK Advanced Boiling Water Reactors at Wylfa Newydd on Anglesey.

Quarterly statement of civil incidents

ONR published its quarterly statement of civil incidents reporting on the period October-December 2016. There was one incident which met ministerial reportable criteria at Dounreay involving contamination of workers' clothing. There was no detectable intake of radioactive material by any of the people involved in the incident.

6 CONTACTS

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