



Office for Nuclear Regulation (ONR) Quarterly Site Report for Hartlepool Power Station

Report for period 1 July to 30 September 2015

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 Hartlepool Local Community Liaison Committee and are also available on the ONR website (<http://www.onr.org.uk/lc/>).

Site inspectors from ONR usually attend Hartlepool Local Community 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 site inspector made inspections on the following dates during the quarter:

- 17 – 21 August
- 16 – 17 September
- 24 – 25 September
- 29 – 30 September

ONR warranted inspectors undertook interventions on the Hartlepool Licenced Site on the following dates during the quarter:

- 21 August
- 2 September
- 24 September
- 29 – 30 September

The ONR superintending inspector (operating reactors) visited the power station on the 19 – 20 August.

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 at Hartlepool power station covered the following:

- Periodic review of safety cases
- Operational Records concerning amount and location of radioactive materials
- Control and Supervision of Operations
- Accumulation of Radioactive Waste
- Leak and Escape of Radioactive Material and Radioactive Waste

In addition to our program of site licence compliance inspections, ONR also undertakes system based inspections which are focused on the site's critical safety systems and structures and are derived from the licensees' safety cases. During the period, ONR performed a system based inspection of the following systems:

- Control and instrumentation

In general, ONR judged the arrangements made and implemented by the site in response to safety requirements to be adequate in the areas inspected. We judged that the equipment examined during our system based inspection met the requirements of the nuclear safety case. 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.

Details of these inspections can be found in the Hartlepool intervention records located at: <http://www.onr.org.uk/civil-nuclear-reactors/operating-reactors.htm>.

2.1.1 Annual Review of Safety

The licensee's Annual Review of Safety for Hartlepool power station was held on 20 August 2015 and was attended by the ONR superintending inspector for operating reactors. The licensee presented its annual assessment of safety performance on the site and identified its priorities for continuous improvement for the next 12 months. ONR considered that the licensee's assessment was sufficiently comprehensive and had identified appropriate areas to improve its nuclear safety performance.

2.1.2 Joint Inspection with Environment Agency

Working together with the Environment Agency, we performed a routine inspection to evaluate radioactive waste management on the site and arrangements to prevent leak and escape of radioactive materials or radioactive waste.

ONR Inspectors reviewed the site's radioactive waste management plan and reviewed the measures provided to contain water with the site fuel pond, on a sample basis. We concluded that the site is proactively managing its holdings of operational low level radioactive solid waste and noted overall improving standards of radioactive waste management.

2.2 Other work

During this period a team of ONR inspectors observed an exercise designed to demonstrate Hartlepool power station's arrangements for dealing with a security incident. The exercise included an armed response by the Civil Nuclear Constabulary, and tested command and control across the site. ONR judged that the exercise was an adequate demonstration of the site's response to a counter terrorism incident. A number of learning points were observed by the ONR inspection team which were accepted by the licensee and will be monitored by the ONR security inspector during future inspections.

2.2.1 Boiler spine cooling modifications

In 2014, a cracked region was discovered on a boiler spine at Heysham 1 Reactor 1, which is of a similar type of boiler design to those installed at Hartlepool power station. Both reactors at Hartlepool have been operating at reduced power, pending further work to improve the long term safety case position for operation of the boilers.

On the 7 August, ONR issued licence instrument 552 acknowledging EDF Nuclear Generation Ltd's (EDF NGL) safety justification to install a modification at Hartlepool power station which is intended to reduce the temperature of the boiler spines in the region where the cracking was discovered in Heysham 1. The boiler spine cooling modification was fitted to all the boiler spines at Hartlepool Reactor 2 during a planned outage which took place during the period of this report. EDF NGL is currently in the process of installing the boiler spine cooling modification to the Reactor 1 boilers, during its ongoing refuelling outage.

2.2.2 Amendment of Operating Rules

In accordance with Licence Condition 23 Operating Rules, the licensee is required to submit limits and conditions required for the safe operation of the plant to ONR for approval. Once approved the limits and conditions, which are defined in Nuclear Safety Requirements (NSRs), cannot be changed without seeking further approval from ONR.

EDF NGL requested permission from ONR to revise its Nuclear Safety Requirements (NSR) associated with refuelling. ONR's assessment of EDF NGL's submission established that the proposed changes would simplify the documentation by removing reference to off load pressurised refuelling, which is no longer supported by the safety case and is not performed at the station. ONR issued Licence Instrument 551 approving this amendment.

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:

- In July, the licensee reported to ONR the discovery of a number of defects detected during routine testing of non-return valves installed in an auxiliary cooling water system. The incident did not result in any actual adverse consequences and was preliminary classified as level 1 (anomaly) on the International Nuclear and Radiological Event Scale. Together with a mechanical specialist inspector, the ONR site inspector undertook further enquiries into the incident. The inspectors concluded that the licensee had undertaken an adequate internal investigation and had identified learning to improve performance. ONR will monitor EDF NGL's implementation of these lessons learnt during future interventions.

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.

The following LIs and Enforcement Notices have been issued during the period:

Table 1
Licence Instruments and Enforcement Notices Issued by ONR during this period

| Date | Type | Ref No | Description |
|----------------|-----------------|--------|---|
| 7 August 2015 | Acknowledgement | LI 552 | Hartlepool – Acknowledgement of Paper of Principle for Installation of Insulation in Boiler Spine Annulus and Subsequent Reactor Operation. |
| 27 August 2015 | Agreement | LI 551 | Amendment to Operating Rules to remove provision for Pressurised Refuelling. |

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

5 NEWS FROM ONR

Retirement of the Chief Nuclear Inspector

Dr Andy Hall, the first Chief Nuclear Inspector to hold this statutory office, announced his decision to retire from ONR in November 2015 and until his retirement he is taking a period of compassionate leave for personal reasons. The ONR Board, with the approval of the Secretary of State, has appointed Dr Richard Savage as Acting Chief Nuclear Inspector, pending a process to fill the role on a permanent basis. Richard was previously Head of the Ministry of Defence Nuclear Safety Regulator before joining ONR in his current role as a Deputy Chief Nuclear Inspector.

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. <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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