



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

Report for period 1 July – 30 September 2018

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 of 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 where these reports are presented and will respond to any questions raised there. Any person wishing to enquire about matters covered by this report should contact ONR.

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1 INSPECTIONS

1.1 Dates of inspection

ONR inspectors undertook interventions at Hartlepool Power Station on the following dates during the report period:

- 16-20 July
- 7 August
- 27-31 August
- 4-5 September
- 24-28 September

2 ROUTINE MATTERS

2.1 Compliance 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 2017 (IRR17) and the Management of Health and Safety at Work Regulations 1999 (MHSWR99).

The inspections entail monitoring the licensee's (EDF Energy Nuclear Generation Ltd, NGL) 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 Hartlepool Power Station covered the following:

- examination, maintenance, inspection and testing;
- management of operations including control and supervision;
 - undertaken as an unannounced inspection
- staff training, qualifications and experience;
- emergency preparedness;
 - undertaken with support from a Health & Safety Executive Hazardous Installations Directorate specialist inspector
- radioactive waste management;
 - undertaken jointly with a nuclear regulator from the Environment Agency
- quality assurance and records;

In general, ONR judged the arrangements made and implemented by the site in response to safety requirements to meet the legal requirements 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.

2.2 System Based Inspections

In addition to our program of site licence compliance inspections, ONR also undertakes system based inspections (SBI) which involve a “deep slice” sample into the safety case and

supporting documentation in order to evaluate compliance with a range of nuclear site licence conditions and form overall judgement on the adequacy of the implementation the system's safety case claims. During the period, ONR performed SBIs on the following systems:

- SBI 04 – Auxiliary Cooling
- SBI 09 – Main Electrical System

The licence conditions (LC) against which compliance is evaluated are:

- LC 10: Training
- LC 23: Operating rules
- LC 24: Operating instructions
- LC 27: Safety mechanisms
- LC 28: Examination, inspection, maintenance and testing
- LC 34: Leakage and escape of radioactive material and radioactive waste

Auxiliary Cooling – SBI04

The auxiliary cooling system (SBI 04) consists of several safety-critical cooling systems, of which the following were targeted; Low Pressure Back Up Cooling System (LPBUCS), Reactor Ancillaries Cooling Water (RACW) and Turbine House Ancillaries Cooling Water (THACW).

We found that the individuals undertaking maintenance and inspection activities on the systems were suitably qualified and experienced. In addition, the operating instructions in place to control those maintenance and inspection activities were appropriate. We determined that the systems in place to detect loss of carbon dioxide (the reactor coolant) through the auxiliary cooling system were also appropriate.

We sampled a manual valve that required a surveillance on each shift to confirm that the valve was closed. This surveillance requirement came directly from the Operating Rules derived from the safety case. NGL was unable to demonstrate that the shiftly surveillance was performed and therefore that the valve was correctly configured. In addition, we found shortfalls in the implementation of arrangements for the regular and systematic examination, inspection maintenance and testing (EIM&T) with respect to the valve; it was not listed on the maintenance schedule and had a status of being allowed to run to failure.

We also found that there was a large backlog of Work Order Cards awaiting their results to be uploaded on to the station's asset management system. We judged that this could prevent learning from previous EIM&T activities being promulgated to future activities.

As a result of the shortfalls identified, we judged that the system did not fulfil the requirements of the safety case. However, given the redundancy and diversity within the systems to safety shutdown and cool the reactor in the event of a fault, we do not consider that the shortfalls identified prevent continued safe operation.

We awarded inspection ratings of GREEN to LC 10, 24 and 34; AMBER to LC 23, 27 and 28. Regulatory issues have been raised to track the improvements required. The need for further regulatory action will be determined in line with ONR's Enforcement Management Model.

Main Electrical – SBI09

The main electrical system (SBI 09) comprises: the NGL-owned 275kV equipment which provides connections to the national grid; two Generator Transformers; 23kV equipment; two Unit Transformers; two 11kV unit switchboards and associated interconnectors. The system is the distribution system for electricity to the national grid from the main generators and from the national grid to station systems when the generators are not producing.

We found that NGL has arrangements to ensure that the transformers, grid systems, and main electrical system are inspected, maintained and operated in accordance with the safety case. The arrangements examined complied with the licensee's legal duties in the areas sampled during the inspection. Whilst the inspection identified areas for potential improvement, none gave rise to significant concern and the station has agreed to take action to address them. These observations were minor in nature and none were judged to be compliance issues, hence no regulatory follow-up was considered necessary.

We judged that the system fulfils the requirements of the safety case. We awarded an inspection rating of GREEN against LC10, LC23, LC24, LC27 and LC28. LC34 was not evaluated as it was not considered applicable to this SBI.

2.3 Theme Inspection

In the period, ONR undertook an intervention (evaluated against LC17 – Management Systems) to determine the adequacy of EDF NGL's oversight and control over the supply chain involved in delivering 'equivalent spares' to Hartlepool Power Station. 'Equivalent spares' are those spare parts evaluated to have the same the capability as the spare parts specified by the original equipment manufacturer.

The intervention consisted of three separate inspections;

- At fleet level to consider the overall system for the management of equivalent spares,
- At Hartlepool Power Station to test that the system was in place and working,
- At a supplier of equivalent spares to Hartlepool Power Station to check the adequacy of their arrangements.

We found that there was a documented, adequately resourced and controlled system in place for management of equivalent spares which is designed to operate autonomously at each Power Station with oversight and support at Fleet level. At Hartlepool, we found evidence that the system is embedded and working effectively in accordance with its intent. There was consistency between local and Fleet-level interpretations of how the system should operate. At the supplier, we found that the staff involved had suitable prior experience and access to appropriate specialist advice; although the document describing the arrangements required comprehensive review and revision. This shortfall is being tracked to resolution through ONR's regulatory issue system.

Overall, we judged that a GREEN inspection rating against LC17 is appropriate, because the management system for equivalent spares is appropriate and is implemented effectively at the station.

2.4 Other work

The site inspector attended a planned Health and Safety committee meeting with site safety representatives to support their function of representing employees and receiving information on matters affecting their health, safety and welfare at work.

The Chief Nuclear Inspector visited Hartlepool Power Station as part of a rolling plan to visit all nuclear licensed sites. The visit included a meeting with key EDF NGL Hartlepool lead team members, a meeting with members of the Independent Nuclear Assurance team and a comprehensive walk-down of the station.

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.

- There were no such matters or events of significance during the period.

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 take a range of enforcement actions, to include issuing an Enforcement Notice.

- No LIs, Enforcement Notices or Enforcement letters were issued during this period.

5 NEWS FROM ONR – JULY-SEPTEMBER 2018

Stakeholder Engagement

- In August our Chief Nuclear Inspector Mark Foy and Deputy Chief Inspector Mina Golshan, hosted a webinar for stakeholders on the outcomes of the UK report to the Joint Convention. This is a new channel of communication which we have introduced, and further webinars are planned for November and February 2019. If you would like to find out more, please contact the ONR Communications team at contact@onr.gov.uk
- The ONR/NGO engagement forum took place on 11 October in London. This is a forum to discuss strategic, cross-cutting regulatory matters. Site specific matters are normally addressed via Site Stakeholder Groups. We are always keen to engage with a range of stakeholders and groups on nuclear safety and security issues, so if you do represent a nuclear-interest Non-Governmental Organisation, and are not already involved through our forum or via a Site Stakeholder Group, then please get in touch with the ONR Communications team for further details, via contact@onr.gov.uk

Regulatory News

- On 25 July we announced our decision to prosecute the Atomic Weapons Establishment for offences under Section 2 (1)* of the Health and Safety at Work etc. Act (1974). This charge related to an electrical incident on 27 June, 2017, which resulted in injury to an AWE employee. The incident was a conventional health and safety matter and there was no radiological risk to workers or the public. At a court hearing on 18 September, AWE pleaded guilty to the charge and sentencing was adjourned until 9 November, 2018.

In a separate case brought by ONR, EDF Energy Nuclear Generation Ltd and Doosan Babcock Ltd pleaded guilty on 10 October, 2018) to offences under the Health & Safety at Work etc. Act 1974, section 3(1) and the Work at Height Regulations 2005, Regulation 4(1) respectively. The charges relate to an incident on 12 April 2017 at the Hinkley Point B nuclear power station, which resulted in a serious injury to a Doosan Babcock Ltd employee. Following a hearing at Taunton Magistrates Court, the case was committed for sentencing at Taunton Crown Court with an initial hearing date set for 16 November 2018, although this date is subject to change.

Both of these cases related to conventional, industrial-type incidents that would have been subject to regulation by the Health and Safety executive prior to ONR's creation four years ago, when we gained responsibility for such matters on licensed sites. There was no radiological risk to workers or the public.

Updates on each case will be published on our website www.onr.org.uk

- We have recently published our [Statement of civil incidents](#) meeting the Ministerial Reportable Criteria (MRC) reported to ONR - Q2 2018 (1 April 2018 to 30 June 2018). Full details are available on our [website](#).

Corporate News

- In July we published our second [gender pay report](#). The organisation-wide results show that ONR has a mean gender pay gap of 35.2%, which is wider than last year, although it is broadly similar to the rest of the UK nuclear industry and anticipated given our workforce profile, and that of the industries from which we have historically recruited. ONR is committed to addressing this issue and continues to focus on improving diversity and inclusion.
- Our Chief Executive, Adrienne Kelbie, has agreed a three-year contract extension, taking her term of employment to January 2022.
- The Department for Work and Pensions has started the process for recruiting a new ONR Chair (further details can be found on the [public appointments website](#)). Our current Chair, Nick Baldwin CBE, will remain in office until 31 March, 2019.

6 CONTACTS

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