

# Office for Nuclear Regulation (ONR)

## Site Report for Hartlepool Power Station

Report for period 1 July to 30 September 2022

### 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 inquire about matters covered by this report should contact ONR.

## Table of Contents

1. Inspections .....	3
2. Routine Matters .....	4
3. Non-Routine Matters.....	6
4. Regulatory Activity .....	8
5. News from ONR.....	9
6. Contacts .....	9

# 1. Inspections

## 1.1. Dates of Inspection

The ONR site inspector/ ONR Specialist Inspectors made inspections on the following dates during the report period 1 July to 30 September:

- 12<sup>th</sup> July
- 20-21<sup>st</sup> July
- 9-10<sup>th</sup> August
- 16<sup>th</sup> August
- 13-14<sup>th</sup> September
- 21<sup>st</sup> September

## 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 etc 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 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;
- quality assurance and records;

Members of the public, who would like further information on ONR's inspection activities during the reporting period, can view site Intervention Reports at [www.onr.org.uk/intervention-records](http://www.onr.org.uk/intervention-records) on our website [www.onr.org.uk](http://www.onr.org.uk). Should you have any queries regarding our inspection activities, please email [contact@onr.gov.uk](mailto:contact@onr.gov.uk).

In addition to the routine inspections above, the following matters were also covered at Hartlepool during the reporting period:

- statutory outage deferral meetings
- emergency exercises and review meetings
- significant / topical compliance matters
- equipment reliability reviews
- regulatory issue progress
- end of generation planning
- organisational learning
- Leadership and Management for Safety

Within the Hartlepool Quarter 2 report it was noted that ONR conducted a Pressure System Safety Regulation 2000 (PSSR) compliance inspection in June 2022. This inspection was rated RED (demand improvement) against LC28 (examination,

inspection, maintenance and testing) due to a number of self-identified shortfalls in compliance. Following completion of this inspection ONR specialist inspectors applied the Enforcement Management Model (EMM) and subsequently issued an Improvement Notice to Hartlepool power station. ONR have engaged regularly with, Hartlepool Power station staff, senior EDF-NGL management, and the EDF Internal regulator and subsequently received sufficient evidence to demonstrate that all contraventions have been adequately addressed. ONR will continue to monitor PSSR compliance as part of routine regulatory engagement.

## 2.2. Other Work

During the period the site inspector held routine meetings with station staff to monitor the performance of the site by:

- Reviewing the current plant status and all open regulatory issues associated with Hartlepool with the Technical and Safety Support Manager (TSSM).
- Meeting on a weekly basis with the site-based Independent Nuclear Assurance (INA) team to ensure the internal regulator function remains effective and verifying information provided by the station.
- Engaging with site safety representatives to support their function of representing employees and receiving information on matters affecting their health, safety and welfare at work.
- During this reporting period the site inspector undertook a number of intelligence gathering activities and plant visits including engagement with members of the site's senior leadership team.

## 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:

### **Unplanned Isolation of CO<sub>2</sub> Vaporiser**

During routine confirmation of plant status checks, it was identified that CO<sub>2</sub> vaporiser 4 outlet valve was closed, rendering the vaporiser unavailable. This configuration was not known by the duty Duly Authorised Person (DAP) and not tracked in the station action tracking log. As CO<sub>2</sub> Vaporiser 3 was already unavailable, due to planned maintenance, an unplanned entry into a 36hr limited condition of operation (LCO) Action Condition was recorded for two vaporisers being unavailable. The position of the closed valve was last confirmed on the 20th May. This is outside of the timescales permitted by the associated technical specification action condition; therefore this event has been categorised as a technical specification non-conformance. Upon identifying the misconfiguration, the plant was reconfigured into the correct state and the LCO Action Condition was exited. ONR will continue to monitor configuration control events during routine site inspections.

### **Fuel Plug Unit Thermal Shield Graphite Seal Engagement**

During work supporting the graphite weight loss safety case development, it was identified that there is the potential for axial shrinkage of fuel element graphite sleeves to result in the lower graphite seal of the Fuel Plug Unit (FPU) thermal shield dropping below the standpipe which could allow hot gas to bypass the seal. This could then impact the integrity of mild steel components in the plug unit.

EDF held a Safety Case Anomalies Process (SCAP) meeting and have produced an Interim Justification for Continued Operation (IJCO). A full JCO will be required for long term resolution of the issue. ONR specialist inspectors continue to engage with EDF as part of their response to this issue.

### **Seismic Qualification of the GCMF**

It was discovered that there is no clear evidence to confirm that the Gas Circulator Maintenance Facility (GCMF) at Hartlepool is seismically qualified. This challenge is associated with the risk of damage to the adjacent Secondary Shutdown (SSD) nitrogen stores during a seismic event. Subsequent to this, it has been highlighted that the GCMF also poses an interaction hazard to the CO<sub>2</sub> export pipework, which is routed around/under the GCMF in trenches. While the trenches within the building are robust, external trenches are only protected by lightweight covers which would not be expected to be able to fully shield the pipework from falling debris if the structure failed in a major seismic event. The CO<sub>2</sub> export pipework is made up of two routes which can independently deliver CO<sub>2</sub> needed for essential safety functions. While both lines are separately routed, they are both local to the GCMF and so either (or both) could

be affected if the GCMF were to fail in a seismic event. EDF-NGL remain confident that the building will be shown to be seismically capable. EDF conducted a SCAP and an IJCO has been produced for continued operation.

An action has been placed to put in place practical reinforcement of CO2 export pipework trench covers. ONR specialist inspectors continue to engage with EDF as part of their response to this issue.

EDF held a Safety Case Anomalies Process (SCAP) meeting and have produced an Interim Justification for Continued Operation (IJCO). A full JCO will be required for long term resolution of the issue. ONR specialist inspectors continue to engage with EDF as part of their response to this issue.

## 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.

Licence Instrument 22-004 was issued to Hartlepool due to non-compliance with PSSR, this is discussed further above in section 2.

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

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

Date	Type	Ref. No.	Description
17/08/2022	Improvement Notice	22-004	Non-compliance against PSSR

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



## 5. News from ONR

For the latest news and information from the Office for Nuclear Regulation, please read and subscribe to our regular email newsletter 'ONR News' at [www.onr.org.uk/onrnews](http://www.onr.org.uk/onrnews)

## 6. Contacts

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