

Office for Nuclear Regulation (ONR)

Site Report for Hartlepool Power Station

Report for period 1 January to 31 March 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.....	7
4. Regulatory Activity	8
5. News from ONR.....	9
6. Contacts	9

1. Inspections

1.1. Dates of Inspection

ONR inspectors made inspections on the following dates during the report period 1 January to 31 March 2022:

- 15-17 February (onsite)
- 8-9 March (onsite)
- 15-17 March (onsite)
- 22 March (onsite)

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 2017 (IRR17) 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, the following compliance inspections were undertaken:

Criticality: This intervention was undertaken as part of a series of planned cross-site criticality inspections performed by ONR. This criticality inspection focussed on criticality aspects of LCs 8, 10, 12, 23, 24 and 28 on the Hartlepool nuclear licensed site. Inspection findings against these LCs led to a rating of 'Green' in all cases, with no significant areas of concern.

COMAH: The purpose of this intervention was to provide regulatory confidence in the management of conventional health and safety hazards present at Hartlepool power station. Specifically, in relation to the Control of Major Accident Hazards Regulations 2015 (COMAH). Some minor shortfalls were identified during the inspection that resulted in several Level 4 regulatory issues being raised however the inspection rated was considered to be 'Green'. The satisfactory resolution of the regulatory issues will be monitored during routine site engagements.

Safeguards: In accordance with the ONR Safeguards' inspection and assessment plan 2021/22 for EDF, ONR Safeguards carries out several safeguards compliance inspections across the EDF fleet. One such intervention was performed to assess compliance with the requirements of the Nuclear Safeguards (EU Exit) Regulations 2019 (NSR19) in relation to nuclear material accountancy at Hartlepool - Material Balance Area (MBA). The inspection targeted the completeness and correctness of the operating and accounting records (source documentation) which underpinned a sample of batches of Qualifying Nuclear Material (QNM) declared in the accountancy reports for this facility. The inspection also targeted whether these source documents

were traceable to the accountancy reports and whether arrangements for generation of source documentation and accountancy reports at Hartlepool were adequately implemented. Based on the inspection sample ONR considered that EDF is compliant with the requirements for nuclear material accountancy set out in NSR19 and rated the inspection 'Green'.

System Based Inspections

In addition to our compliance inspections based on the conditions attached to the nuclear site licence, ONR also inspects operating reactors against safety-related systems. Each site has a safety case that demonstrates how it operates safely. For Advanced Gas-cooled Reactors, each of the key systems will be inspected against the claims made upon them by the safety case. The aim is to systematically inspect all the significant safety related systems within a five-year cycle. ONR considers that this will provide additional assurance that operations on the Hartlepool site are safe. Each of these system inspections considers the relevant licence conditions below:

- 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

During this reporting period one combined SBI was undertaken.

No break supplies system (SBI 07); emergency generation and short break supplies systems (SBI 08); transformers, grid systems, and main electrical system (SBI 09)

The purpose of this intervention was to conduct a system-based inspection (SBI) of the emergency generation, short break supplies systems, no break systems, transformers, grid and main electrical systems that support the function of the emergency boiler feed pumps (EBFP).

The inspection of the essential electrical systems that support the function of the electrically driven EBFPs, inspected for LCs 10, 23, 24, 27, and 28, was rated as 'Green' on the basis that relevant good practice was met and no deficiencies in compliance arrangements were identified. No inspection rating was assigned to LC 34 as it was not deemed applicable to this inspection.

2.2. Other Work

During the period the site inspector worked remotely to monitor the performance of the site by:

- Reviewing the open regulatory issues associated with Hartlepool with the Technical and Safety Support Manager (TSSM).
- Meeting with the TSSM during weekly meetings, to discuss the station's response to, and the impact of, the coronavirus pandemic.



- Meeting on a weekly basis with the site-based Independent Nuclear Assurance team to ensure the internal regulator function remains effective and verifying information provided by 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.

Matters and events of particular note during the period were:

- INF1 1527 & 1583: On 6 January a site incident was declared following a small leak on the CO₂ plant. The leak was isolated and returned to normal operations. On 25 January, a relief valve associated with a CO₂ transfer pump lifted causing a release of CO₂ which required the local area to be evacuated. A decision was taken to enter Operational Alert to take control of the situation. Due to the proximity of these events the site conducted one single investigation which will be reviewed by the ONR site inspector. ONR are content the site took appropriate action to deal with both events and that there was no risk to the public from either event.
- INF 1793: On 24 March reactor 2 was manually shutdown following the unplanned trip of 2C boiler quadrant. The unit was safely shutdown and post trip cooling implemented.
- INF 1796: Following the shutdown noted above, on 25 March a safety control rod unexpectedly drifted into the core (there are 12 safety control rods which are normally removed from the core following the safe shutdown of a unit and are held out in accordance with technical specifications). The insertion of the control rod was due to a defect which went unnoticed by the control room team. During this period a further control rod exchange was completed which is a breach of the station technical specifications with a safety rod inserted. The ONR site inspector considered this event met the criteria to commence preliminary enquiries at site to assess the requirement for further regulatory action. This was conducted on 12 April with a Human Factors specialist inspector in attendance. ONR were satisfied that despite the shortcomings relating to control and supervision within the control room the station took prompt and robust actions to deal with the event and have initiated their own internal investigation. ONR will monitor the output from the investigation and will consider any actions relating to this. There were no actual consequences to the event and all other shutdown safety systems were functional.

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.

- 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
6/04/2022	Enforcement letter	ONR-EL-21-047 HRA71323R	This letter relates to the AMBER rated LC36 compliance inspection recorded in the Q4 site report from 2021.

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

6. Contacts

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