Office for Nuclear Regulation (ONR)

Site Report for

Hartlepool Power Station

Report for period 1 April – 30 June 2020

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/llc/).

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.

TABLE OF CONTENTS

1 INSPECTIONS

1.1 Dates of Intervention

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

- 21 & 29 April,
- 19, 20 & 27 May
- 3, 11, 17, 18 & 24 June

All interventions in this period were conducted remotely as a result of the coronavirus pandemic.

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 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 (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:

- incidents on the site

2.2 System Based Inspections (SBI)

SBIs consist of a series of inspections which are intended to establish that the basic elements of a site/facility safety case as implemented in Safety Systems and Structures (SSS) are fit for purpose and that they will fulfil their safety functional requirements. In an SBI, the adequacy of implementation of the licensee's arrangements for six Licence Conditions (LC) (10, 23, 24, 27, 28 & 34) is tested for the SSS chosen.

2.2.1 Data Processing and Control System (DPCS)

The primary function of the DPCS is to read plant parameters associated with Hartlepool's two nuclear reactors and their turbo-alternator equipment, ancillary systems, fire alarm systems and to provide associated alarms and indications to operators to enable them to operate the plant safely. A secondary function is to provide direct digital control of a number of control loops.

Due to the COVID-19 pandemic the SBI was undertaken in the form of 7 'remote' sessions (the duration of each was approximately 2½ hours), which were spread out between the 22 April and 24 June 2020. However, it is important to note that the scope and depth of this SBI was equivalent to that of a traditional site based SBI.

We examined training records of a number of people involved with the operation and maintenance of the DPCS and judged that they were suitably qualified and experienced. A commitment was made by the station to develop a system handover document. We reviewed a relevant technical specification and two operating instructions and discussed their application with two operators. We judged that the specification and instructions were clear

and straightforward to follow. We noted a minor shortfall in the paperwork associated with the technical specification, but considered that this was not detrimental to nuclear safety. Following an additional check, the station confirmed that the technical specification had been complied with.

A plant walkdown was conducted by the on-site Independent Nuclear Assurance team; we noted that the plant and equipment were in good condition and access to it was adequately controlled. We noted the ongoing improvement works in relation to the heating, ventilation and air conditioning. We also noted that several plant faults had been incorrectly assigned to the DPCS and raised an action for Hartlepool to address this. Though the matter was not significant enough for a regulatory issue to be raised, we will monitor progress on this action to ensure it is addressed.

We examined a number of DPCS maintenance records and found that the tasks had been adequately defined and carried out when required. There were, however, a number of minor shortfalls with some of the records, including non-inclusion of: 'pass/fail' criteria, 'as found' condition details and recording of the test equipment used. In addition, the maintenance policy did not include all of the scheduled routines. These items were highlighted to the Lead System Engineer for considered action. Despite these findings, which we do not feel are proportionate to track, we judged that the DPCS was being adequately tested and maintained.

Overall, we judged that the DPCS is fulfilling its safety functional requirements.

2.3 Other Work / COVID-19 (Coronavirus) Pandemic Impacts

As described in the last quarter's report, ONR began to restrict non-essential visits to the site w/c 9 March. In w/c 16 March, in line with the Government's recommendation, ONR implemented homeworking and restricted all visits to site. As a result, two inspections were postponed from last quarter; an LC7 (Incidents on the site) and an SBI examining the Distributed Plant Control System. Both of these inspections have since been completed remotely and the SBI is reported above.

Because there were no urgent or essential regulatory matters that necessitated a site intervention, the site inspector worked remotely to monitor the performance of the site by:

- Attending the Hartlepool Local Community Liaison Committee. The committee remains an open and honest forum, though it would benefit from increased public attendance.
- Attending the Hartlepool Emergency Arrangements Review Meeting. There were no significant items of note.
- Reviewing the open regulatory issues associated with Hartlepool with the Technical and Safety Support Manager (TSSM). Generally, good progress is being made on the majority of issues; some delays are evident with lower priority issues, but at present, we have no significant concern.
- Holding a meeting with the Hartlepool EDF Energy Nuclear Generation Limited staff safety representatives discussing the implementation of coronavirus controls, such as social distancing. Generally, the staff were content with the controls in place.
- Meeting with the TSSM initially on a daily basis, then reducing down to twice-weekly meetings, to discuss the station's response to, and the impact of, the coronavirus pandemic. Despite difficulties at the start of the pandemic, social distancing protocols have been adhered to.
- Meeting on a frequent basis with the site-based Independent Nuclear Assurance team to ensure the internal regulator function remains effective and verifying information provided by the station.
- Increasing the number of meetings attended, including senior leadership team morning meetings (where the station's priorities are set), maintenance requirements review group meetings (where the impact of potential or actual staff shortfalls on safety-significant maintenance are managed), operational focus meetings (where the day-to-day threats to safety and operation are

discussed) and operational restart safety committees (which focus on the nuclear safety elements of reactor restart).

As a result of the above remote interactions, the site inspector considers that the site has managed its response to the pandemic during the period in a manner that, so far as is reasonably practicable, protected its own staff and ensured that there was no degradation in nuclear safety.

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. Should you have any queries regarding our inspection activities, please email contact@onr.gov.uk.

3 NON-ROUTINE MATTERS

3.1 Events

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:

- 2020/407 – Flask Contamination
  On the 27th June, a flask arrived on site with higher than normal levels of Beta contamination. The contamination was identified through routine acceptance checks and further checks confirmed the result. The flask and associated flatrol were quarantined to allow evidence to be collected to support the consignor's investigation. The flask and flatrol have since been decontaminated and returned to service. The levels of contamination were not significant and did not present a significant risk to the public or workers.
  The consignor will have to submit a further report to ONR, at which point ONR will consider further regulator action.

3.2 Hartlepool Emergency Plan

REPPIR19 has prompted the requirement for the review and amendment of the on-site, and off-site emergency plans. Following the Hartlepool review and subsequent updates to the emergency plan, the station sought ONR's approval of its Emergency Plan in April 2020 under LC11 arrangements. ONR provided a response in June to the request, highlighting that the description of the Detailed Emergency Planning Zone (DEPZ) in the revised submission has been omitted. ONR has requested that Hartlepool ensure the on-site emergency plan is resubmitted containing the new DEPZ information within the final version. ONR is expecting the resubmission of the emergency plan by the end of November 2020.

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:

- Enforcement Letter, ONR-EL-20-007
  Two gas circulator penetration liners on Hartlepool Reactor 1 and four control rod standpipes on Hartlepool Reactor 2 were not examined by the licensee within the intervals specified in the relevant written schemes of examination

and no relevant postponement for those items had been agreed. This is an apparent contravention of the Pressure Systems Safety Regulations 2000, Regulation 9(1). Application of the Enforcement Management Model ultimately led to an enforcement letter being sent to Hartlepool. The four control rod standpipes were inspected within three weeks. ONR accepted NGL's arguments that the gas circulator penetration liner welds could not be inspected until the next reactor 1 statutory outage (expected Q2/3 2021) without an increase in nuclear safety risk. A level 2 regulatory issue has been raised to track this to completion.

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

Date	Type	Ref No	Description
17 June 2020	Enforcement Letter	ONR-EL-20-007 HRA71310N	Pressure Systems Safety Regulations 2000, Regulation 9.

5 NEWS FROM ONR

5.1 COVID-19

ONR is continuing to protect society by securing safe nuclear operations during the COVID-19 (coronavirus) pandemic. Our staff continue to work from home, in line with government advice, with a limited number of our inspectors, as key workers, travelling to site as necessary to conduct urgent and essential regulatory inspections. ONR's latest position can be found on our website.

5.2 Enforcement Action

ONR served an Improvement Notice on EDF Energy Nuclear Generation Ltd (EDF Energy) for contravention of the Pressure Systems Safety Regulations (2000) at Heysham 1 Power Station. The notice was served after shortfalls were discovered in the examination and inspection of the Reactor 1 pressure vessel at the Lancashire plant. EDF Energy must comply with the Improvement Notice and complete the eleven overdue examinations by 18 December, 2020.

ONR has granted an extension to an Enforcement Notice served on Urenco UK Ltd, recognising the good progress made so far. The notice was issued in late December 2019, following a fire safety inspection at the Capenhurst Works in Cheshire, which revealed shortfalls in the fire alarm and detection systems at one of the site's facilities. Urenco UK Ltd must comply with the requirements of the extended notice by 30 September, 2020

5.3 Regulatory Updates

ONR received an application for a nuclear site licence from NNB Generation Company (SZC) Limited, to construct and operate two EPR TM reactors, at its proposed development in Sizewell, Suffolk. We will now assess the application, partly informed by our previous assessment of the EPR TM at Hinkley Point C – including using the relevant lessons from that assessment, while focusing on aspects specifically relevant to Sizewell C.

Whilst we are satisfied that the application is sufficiently complete to proceed to assessment stage, there is still a lot of work to do – and we do not expect to reach a decision until at least the end of 2021.

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