

Office for Nuclear Regulation (ONR)

Site Report for Heysham Power Stations

Report for period 1 October – 31 December 2021

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

Site inspectors from ONR usually attend the Heysham 1 and 2 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.

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1. Inspections

1.1. Dates of Inspection

The ONR site inspectors made inspections on the following dates during the report period:

Heysham 1

5 – 7 October

10 – 11, 22 - 25 November

20 - 21 December

Heysham 2

7 - 8, 19 October

3 – 4, 25 November

1, 8 - 9, 16 December

In addition, our specialist inspectors were involved in interventions on the following date during the report period:

Heysham 1

10 – 11 November

Heysham 2

15 – 16 November

2, 13 - 16 December

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, routine inspections of Heysham stations covered the following:

- examination, maintenance, inspection and testing (Both Sites) (including system based inspections of auxiliary cooling systems and reactor safety systems at Heysham 2)
- modifications to plant, equipment and safety cases (Both Sites)
- warning notices (Heysham 2)
- design control (Heysham 2)
- commissioning (Heysham 2)
- emergency preparedness (Heysham 2)
- incidents on the site (Heysham 1)
- radiological protection (Heysham 2)
- safeguards (Heysham 2)
- conventional (non-nuclear) health and safety (Heysham 1)

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

2.2. Other Work

Local Community Liaison Committee

We attended the Local Community Liaison Committee meeting on the 3 December to brief attendees on our recent regulatory interventions.

Annual Reviews of Safety

We held annual reviews of safety with Heysham 1 on 6 October and Heysham 2 on 25 November. These routine annual meetings give us the opportunity to take a stand back look at the performance of the stations over the previous 12 months.

Make-up Shields (Heysham 2)

We attended meetings with the site and attendees from their central support organisation to discuss proposals for modifications to the make-up shields (MUS) on Reactor 7 and Reactor 8 at Heysham 2 that could potentially allow exchanges of control rods and fuel whilst the reactor is pressurised. These operations are currently embargoed (see Q3 report).

A revised safety case will be required before the MUS can be operated at pressure. We have placed a regulatory hold point and will permission the revised safety case. Indications are that the safety case and associated modifications will not be complete until later in 2022.

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:

Heysham 1

Double reactor trip – 22 July

In the previous Q3 report we described our investigation into the 22 July loss of grid and double reactor trip incident. Following review by the UK INES officer, in this period the incident was formally reported as an INES 2 (incident).

Reactor 2 Shutdown following CO₂ plant fault – 3 October

On the 3 October, following a west CO₂ plant high pressure heater fault, and with the knowledge that the fault could not be repaired within 24 hours, the site's limits and conditions of operation required Reactor 2 be shutdown in a controlled manner, within 4 hours. The reactor was safely shutdown with no significant post trip defects reported. There were no consequences as a result of the incident. ONR consider the dutyholder responded appropriately in accordance with their safety case derived Technical Specifications. No initial ONR actions were proposed other than routine follow up and actions placed for the dutyholder to examine the wider extent of condition for similar heater tube arrangements on site. This incident was reported as an INES 1 (Anomaly).

For more information regarding the International Atomic Energy Agency's INES rating please see <https://www.iaea.org/resources/databases/international-nuclear-and-radiological-event-scale>

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

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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