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| ONR Site Report  Heysham Power Stations |



ONR Site Report

Heysham Power Stations

Report for period: 1 October – 31 December 2022

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

Site inspectors from ONR usually attend Heysham LCLC 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. Dates of Inspection

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

**Heysham 1**

4 – 5 October

3, 21 - 24 November

7 – 8 December

**Heysham 2**

6-7, 13-14, 17, 31 October

2, 16-17, 21, 30 November

1 - 2 December

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

**Heysham 1**

5 October

3, 22 - 23 November

**Heysham 2**

9, 16 – 17, 30 November

1 – 2, 6 - 9 December

1. Routine Matters
   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 Heysham covered the following:

Reactor Safety Circuits; (Heysham 1) – The aim of this system based inspection was to examine the implementation of safety case requirements associated with primary ‘guardline’ systems and confirmation that the applicable reactor safety circuits are able to fulfil their safety duties. The inspection included sampling maintenance and testing arrangements, conducting a plant walkdown and holding discussions with operators, maintainers, engineers and training providers.

* Incidents on the site; (Heysham 1 and 2) – the aim of this licence condition 7 inspection was to sample historical incidents on the site where ‘configuration control’ had been a contributor to the event and to examine the adequacy of actions placed to ensure the learning from these incidents is embedded to reduce the likelihood of repeat events.

Offload Depressurised Refuelling (ODR); (Heysham 2) - This theme inspection focused on the licensee’s response to the operational changes required to refuel the reactors whilst shutdown and depressurised (ODR) vs Low Pressure Refuelling (LPR) that was previously used. The change was caused by LPR being currently prohibited due to safety case issues.

Control and Supervision; (Heysham 2) – An unannounced control and supervision inspection, including an out of hours element, focused on start of shift briefings and setting to work and the ongoing work required to fix a reheater tube leak. Handovers / briefings observed were adequate and the physical work seen was well controlled. Team that were observed had a good questioning attitude and ensured that they were clear and co-ordinated before proceeding.

Shift Exercises; (Heysham 2) - Two shift exercises were observed to gain confidence in the emergency exercise programme. In addition a cyber security exercise was also observed

Fuel Route; (Heysham 2) - The aim of this system based inspection was to examine the implementation of safety case requirements associated with the areas below:

* + - Decay Heat Store (DHS)
    - Irradiated Fuel Disposal (IFD) cell
    - Fuel Machine interface with the DHS and IFD cell
    - Fuel Storage Pond

The licensee adequately demonstrated fuel route safety case understanding and implementation. However there were a number of minor observations that will be tracked via regulatory issues.

Emergency Diesel Generation; (Heysham 2) – This inspection had a mechanical focus. The aim of this system based inspection was to examine the implementation of safety case requirements associated with the provision of Emergency Generation (diesel generators and associated support systems). The inspection included sampling maintenance and testing arrangements, conducting a plant walkdown and holding discussions with operators, maintainers, engineers and training providers. No significant issues were found.

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 this period, other routine matters at Heysham stations covered the following:

emergency arrangements review (Heysham 2)

oversight of flask corridor and extended loss of grid modifications (Heysham 1)

Pressure Systems Safety Regulations 2000 compliance (Heysham 1)

Implementation of the plant improvement plan (Heysham 1)

follow-up work related to long-term improvements associated with the make-up shield (MUS) (Heysham 2)

regulatory issue progress (both sites)

routine event follow-ups including any conventional health and safety events (both sites)

organisational capability (both sites) and end of generation planning (Heysham 1)

refuelling safety case and modifications (Heysham 2)

daily plant status, refuelling preparations and progress (both sites)

oversight of graphite inspection data (both sites)

plant walkdowns (both sites)

annual review of safety (Heysham 1)

* 1. Other Work

Other Work

We held periodic meetings with safety representatives, to support their function of representing employees and receiving information on matters affecting their health, safety and welfare at work.

1. 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.

**Heysham 1**

EDF has now complied with [improvement notices](https://news.onr.org.uk/2022/09/pressure-system-shortfalls-at-two-nuclear-power-stations/) served on them for contraventions of the Pressure Systems Safety Regulations (2000) (PSSR) at Hartlepool and Heysham 1 power stations.

The enforcement action followed our targeted inspection at Hartlepool in late June 2022.

That inspection identified that EDF had failed to include all the required items of pressure equipment within Written Schemes of Examination for several of those systems.

Following our inspection at Hartlepool, EDF carried out a review which found similar breaches at Heysham 1 power station in Lancashire, the sister station to the Hartlepool site.

This resulted in us serving similar improvement notices on both sites.

There were no consequences to the public or the environment as a result of the shortfalls.

PSSR regulations place duties on the owner of the pressure system to establish the scope of their Written Schemes of Examination which will determine the nature and frequency of in-service examinations of selected equipment within the pressure system.

**Heysham 2**

EDF reported a configuration control event at Heysham 2, Reactor 7. The Air Ingress Protection valves (AIP) supplies CO2 to the reactor were found to be in manual mode – they should have been in remote mode allowing them to open and close as demanded by the reactor control system. The licensee rectified the issue on discovery. This event will be subject to follow-up by ONR in the next quarter.

1. 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 and Enforcement letters have been issued during the period:

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

1. News from ONR

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

1. Contacts

Office for Nuclear Regulation

Redgrave Court

Merton Road

Bootle

Merseyside

L20 7HS

website: [www.onr.org.uk](http://www.onr.org.uk)

email: [Contact@onr.gov.uk](mailto:Contact@onr.gov.uk)

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