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| ONR site report  EDF – Heysham Power Stations |



ONR site report

EDF - Heysham Power Stations

**Report for period**: 01 April – 30 June 2025

**Authored by**: Heysham 1 Nominated Site inspector

**Approved by**: Head of Regulation (Operating Reactors)

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Foreword

This report is issued as part of our 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 our website: [www.onr.org.uk/publications/regulatory-reports/site-specific-reports/llcssg-reports](http://www.onr.org.uk/publications/regulatory-reports/site-specific-reports/llcssg-reports).

Our site inspectors usually attend the 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 us via email at [contact@onr.gov.uk](mailto:contact@onr.gov.uk).

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# Inspections

## Date(s) of inspection

Our site inspector made inspections on the following dates during the report period 01 April 2025 to 30 June 2025:

**Heysham 1**

6, 7, 8, 20, 21 May

13, 14 May (security specialist)

23, 24, 25 June

**Heysham 2**

10, 11, 12 April

20, 21 May

10, 11 June

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# Routine matters

## 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:

**Heysham 1**

* Heysham 1 Emergency Exercise “ATLAS”.

This inspection was an ONR observation and assessment of the Heysham 1 annual Level 1 Emergency Exercise "Atlas". The emergency mock scenario involved a loss of grid event requiring a reactor to be resealed/repressurised, two missing persons, three casualties, the deployment of back up equipment and the main Access Control Point (ACP) to be unavailable.

ONR was satisfied that the exercise was appropriately challenging with suitable objectives and that it was appropriately planned and executed.

During this exercise demonstration, EDF Heysham 1 adequately demonstrated the implementation of their arrangements for dealing with any accident or emergency arising on the site and their effects in line with LC 11 -Emergency arrangements and Radiation (Emergency Preparedness and Public Information (2019) (REPPIR 19) regulation 4 and 12. The licensee's performance met the legal requirements and was awarded a GREEN (no formal action) inspection rating against licence condition (LC) 11 (Emergency arrangements). There were some minor shortfalls that have been agreed by the site and a plan is in place to rectify these.

* Work and Engineering Change management Themed Inspection.

The inspection considered arrangements in place for classification and control of any aspect of the construction or installation, commissioning, modification to/experiment on or decommissioning of a new or existing plant that may affect safety.

It considered open engineering change (EC) modifications under LC22, duration, ownership, effectiveness once complete and associated records management including changes and limitations to modification. Additionally governance of EC production and approval was inspected including discussions with authors, safety case owners and governance committee members. The inspection also looked at the work management process on site, how emergent work and scope injection are controlled, deferral of work and backlog. This Work and Engineering Change Management Themed inspection at Heysham 1 comprised of discussions with Heysham 1 personnel, sampling of documentation, IT systems, a review of implementation of arrangements and a plant walkdown.

From the areas sampled, ONR inspectors were of the opinion that Heysham 1 are effectively managing changes to work and engineering change effectively in line with LC's 17, 22, 26 and 28, with minor shortfalls agreed by the site and a rectification plan being prepared by site. This will be tracked to completion by the site inspector through regular routine level 4 meetings. This inspection was rated as GREEN (no formal action).

**Heysham 2**

* Emergency arrangements training inspection.

The inspection sampled key leadership roles relating to enacting emergency arrangements. Discussions were held with these role holders and representatives from the station training department.

The sample found that all staff were recorded as qualified and training was in date on EDF company management system “MyLearningHub” for the mandatory training requirements. Staff provided articulation of appropriate backgrounds, experience and behaviours to be selected and placed in emergency scheme roles.

There were some minor shortfalls identified regarding what the required prerequisite training was for some emergency response roles and how experience was maintained. EDF accepted further improvements could be made to address these minor shortfalls and a regulatory issue has been raised so ONR can track the implementation of these improvements. The inspection was rated GREEN (no formal action) for LC’2 10, 11 and 12.

* Heysham 2 Level 1 exercise “ATHENA”

This was the annual demonstration exercise to ONR, aiming to provide evidence that stations emergency plan can be implemented to protect the general public, site personnel, the environment, control plant and ensure compliance with security requirements.

The main elements of the scenario included declaration of the incident, mustering of site personnel, dealing with damaged plant and equipment (leakage and fire), management of casualties and accounting for potential radiological released and associated dose control.

Overall, an adequate demonstration of the Heysham 2 emergency plan was observed. However, we noted some shortfalls in casualty management and timely responses in firefighting.

ONR will be engaging with Heysham 2 to ensure an action plan is produced to address these shortfalls and implement further improvements. An ONR advice letter has been issued to Heysham 2 and a regulatory issue has been raised to track the implementation of the agreed actions and associated timescales for closure.

* Management of radiological waste.

This LC32, 34 and 35 compliance inspection sampled how the station manages the accumulation and disposal of radiological waste. Discussions were held with key role holders for managing waste and included a waste facility walkdown to sample the practical application of waste management arrangements.

ONR judged the licensee to be minimising the accumulation of radioactive waste so far as is reasonably practicable, and to be maintaining adequate records for the waste. Although we identified shortfalls in the storage of radioactive waste during the facility walkdown, it was recognised that this is partly due to a backlog of waste following the recent statutory and fuel route outages.

The licensee was working its way through addressing the shortfalls and provided a reasonable timeframe to do this. ONR has raised a Level 4 regulatory issue to track progress of this work.

Based on the evidence sampled, an overall rating of GREEN (no formal action) was assigned for LC32, 24 and 25.

Security inspections across both sites are undertaken periodically by ONR and have been judged to be in line with ONR expectations with any issues managed through ONR’s normal processes.

Members of the public who would like further information on our inspection activities during the reporting period can view site inspection records on our website: [www.onr.org.uk/publications/regulatory-reports/site-specific-reports/inspection-records](http://www.onr.org.uk/publications/regulatory-reports/site-specific-reports/inspection-records).

Should you have any queries regarding our inspection activities, please email [contact@onr.gov.uk](mailto:contact@onr.gov.uk).

## Other work

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

* regulatory issue progress (both sites)
* routine event follow-ups including any conventional health and safety events (both sites)
* meeting with safety reps (both sites)
* attendance at site stakeholder group, Heysham LCLC
* daily plant status, refuelling preparations and progress (both sites)
* oversight of graphite inspection data (both sites)
* routine outage planning meetings
* plant walkdowns (both sites)
* planning for annual level 1 emergency demonstration exercise (both sites)

# Non-routine matters

Licensees are required to have arrangements to respond to non-routine matters and events. Our inspectors judge the adequacy of the licensee’s response, including actions taken to implement any necessary improvements.

**Heysham 1**

There were no such matters or events of significance during the period. Four low level safety case anomalies were identified and remediation progressed through the licensees normal action tracking system.

During this quarter, four safety case anomalies were identified. The site entered the safety case anomalies process (SCAP) and these were dealt with in accordance with the licensee's arrangements, which are deemed to be adequate, however we are maintaining oversight.

**Heysham 2**

Matters and events of particular note during the period were:

* Reactor 8 dome signals unavailable leading to technical specification entry.

On 16 June 2025, a work activity was released associated with O2 injection commissioning, removing the ability to claim two pressure indicators. As another dome differential pressure indicator was already declared unavailable due to a failed maintenance schedule, the station entered into technical specification action conditions.

Subsequently, two of the required differential pressure indications were returned to available status, allowing for the exit of the technical specification actions. Heysham 2 is investigating the tracking of differential pressure indication shortfalls and will provide ONR with the output of the investigation once complete.

* Thermocouple status tracking shortfall.

On Thursday 8 May, during Reactor 8 startup following an offload depressurised refuelling outage, it was identified that a Limited Condition of Operation (LCO) was not adequately tracked. When the reactor was taken to 'at power' status, only one channel gas outlet thermocouple was declared available in fuel channel Q71.

Upon detection of the plant configuration shortfall, the auto control thermocouple was enabled and the LCO retrospectively exited. Compliance with the requirements of the LCO was met at all times, but the plant configuration was not adequately tracked. Heysham 2 is investigating this shortfall and will share the findings with ONR once complete.

* Reactor 7 manual trip due to turbine generator faults.

At 12:35 on Tuesday 14 April 2025, Reactor 7 was tripped during start-up following its statutory outage. This was due to elevated temperatures on one of the generator hydrogen seals and a lubricant oil anomaly. Following the trip the emergency boiler feed pump spuriously initiated on 7C quadrant and a decay heat condenser cooling water pump failed to start.

The reactor was tripped before the turbine was synchronised to the grid and post-trip cooling was confirmed as satisfactory. Heysham 2 established an event recovery team to carry out inspections, investigate and carry out required maintenance and repair work to enable the unit to be brought back online. Reactor 7 was brought back on line on 3 May 2025 with no further issues.

Heysham 2 is undertaking an investigation into the incident and will share the output with ONR once complete.

# Regulatory activity

We may issue formal documents to ensure compliance with regulatory requirements. Under nuclear site licence conditions, we issue regulatory documents, which either permit an activity or require some form of action to be taken. These are usually collectively termed licence instruments but can take other forms. In addition, inspectors may take a range of enforcement actions, to include issuing an enforcement notice.

The following licence instrument has been issued during the period:

* Agreement to Deferral of Heysham 1 Reactor 2 2025 Statutory Outage (R2/028) to 06 Oct 2025.

The request for an operating period extension was to align Heysham 1 Reactor 2 operation with the Fleet Outage Plan which avoids coincident statutory outages and ensure the availability of adequate resources, allowing the site to continue to operate Reactor 2 until October. ONR specialist inspectors undertook a limited assessment of the presented case to ensure adequate justification that the risk from the proposed extension was tolerable and as low as reasonably practicable (ALARP).

* Consent to restart Heysham 2, Reactor 7 following its S13R& statutory outage, 09 April 2025.

Following a number of specialist inspector targeted interventions, ONR was content that all necessary work had been completed to commence restart of Reactor 7 following its statutory outage. In conclusion, ONR did not identify any matters that would prevent us from granting consent for Heysham 2 Reactor 7 to start-up after the S13R7 periodic shutdown.

**Table 1: Licence instruments and enforcement notices issued by ONR during this period**

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| --- | --- | --- | --- |
| Date | Type | Reference | Description |
| 12/05/2025 | Agreement | LI 645, | Agreement, under LC 30, to the extension of the operating period of Heysham 1 Reactor 2 from 16 May 2025 to 06 October 2025. |
| 09/04/2025 | Consent | LI 644 | Consent, under LC 30, to restart Heysham 2 Reactor 7 following its S13R& statutory outage |
|  |  |  |  |

Reports detailing the above regulatory decisions can be found on our website: [www.onr.org.uk/publications/regulatory-reports/site-specific-reports/project-assessment-reports](http://www.onr.org.uk/publications/regulatory-reports/site-specific-reports/project-assessment-reports).

# News from ONR

For the latest updates and information on our work, please subscribe to our regular email newsletter, ONR News, at [www.onr.org.uk/news/newsletter](https://www.onr.org.uk/news/newsletter/).

# 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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# References

**There are no sources in the current document.**