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| ONR Site Report  Heysham Power Stations |



ONR Site Report

Heysham Power Stations

Report for period: April – June 2023

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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 inspectors made inspections on the following dates during the report period:

**Heysham 1**

4–5, 12-13 April

10, 16-18, 31 May

1 June

**Heysham 2**

24-26 April

5, 15, 17-19, 23-26 May

9, 23, 27-28 June

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

**Heysham 1**

12 April

16-18, 31 May

1 June

**Heysham 2**

26 April

4-5, 25, 30-31 May

1, 6, 8, 13-14 June

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:

Extended loss of national grid (Heysham 1) – the aim of this inspection was to examine the implementation of modifications designed to improve site resilience against extended loss of national grid supplies to the site.

Combined chemical commodities and Control of Major Accident Hazards Regulations (COMAH) compliance; (Heysham 1) – The aim of this inspection was to obtain evidence that the licensee’s current management systems associated with chemistry and COMAH arrangements for chemical commodity purchase, delivery, storage and connection to plant are adequately implemented, effective and integrated.

* Auxiliary Cooling and Seawater Systems (Heysham 1) – The aim of this system-based inspection was to determine if the Auxiliary Cooling System (Including Pressure Vessel Cooling System) and Seawater Systems adequately fulfil their safety functional requirements as described within the safety case.

Operational Modifications (Heysham 2) - This inspection looked at the site’s arrangements for controlling changes that fall under the scope of Licence Condition (LC)22 - Modification or experiment on existing plant. Including alteration to buildings, plants, operations, processes or safety cases. It also includes arrangements of how operators deal with minor operational changes and receive technical advice. The inspection found that modifications are considered with appropriate rigour, but a couple of observations were made to improve the site’s management system’s effectiveness.

Operations, Reactivity Management & Alarm Handling (Heysham 2) – This was an operations themed inspection looking at how the licensee manages specific aspects of operations including alarm handling and reactivity control. It also included standard control and supervision inspection (LC26) elements including shift handover and routine surveillances. No significant issues were found but minor regulatory issues have been raised in relation to ongoing reactivity management training and local operations departmental instructions.

Outage Inspections (Heysham 2) – From 5 May 2023 Reactor 8 went into statutory outage. In support of the permission (Consent) required to restart the reactor we carried out a number of inspections and interventions lead by specialist inspectors. Topics included:

* + - * Graphite Core Integrity
      * Structural Integrity
      * Electrical Engineering
      * Control & Instrumentation
      * Mechanical Engineering
      * Management and follow-up of events & emergent issues

No significant issues were raised and the Consent was issued on 14 July 2023 (See Section 4). The project assessment report for this Consent can be found on the ONR website.

Management of Change (Heysham 2): This LC compliance inspection targeted the station’s arrangements for governance, oversight and management of resources to maintain nuclear safety and the strategy for ensuring the maintenance of adequate SQEP (LC36). It focused on the robust justification of the organisation shape and size to maintain nuclear safety and associated issues, risks and vulnerabilities; the role of the supply chain; the resourcing strategy to maintain adequate SQEP to manage nuclear safety and effectiveness of the organisational change process. We found that the station is effectively managing organisational capability and no significant issues were raised.

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). 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:

follow up to skip element handling machine failure (Heysham 1)

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)

follow-up to emergency equipment inspection in last quarter (Heysham 2)

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

oversight of graphite inspection data (both sites)

plant walkdowns (both sites)

* 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**

We previously reported that on the 28 February 2023 the mast hoist lifting mechanism of the Skip Element Handling Machine had failed during fault finding activities. This resulted in the uncontrolled lowering of the mast and grapple assembly within the irradiated fuel storage pond. No fuel skips were being lifted at the time and no irradiated fuel was damaged. An increased frequency of environmental monitoring within the facility confirmed that there was no increase in pond water or airborne radioactivity levels.

ONR followed up this incident during this quarter and we concluded that EDF had adequately and safely implemented recovery actions and had taken appropriate measures to learn from the incident to prevent recurrence.

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, including issuing an enforcement notice or letter.

During this quarter, we issued two Licence Instruments:

Heysham 1: LI 639 Agreement to Heysham 1 and Hartlepool Power Stations NP/SC 7824 - Consolidated Seismic Safety Case for the Graphite Core, Core Restraint and Core Support Structure – issued 25 May 2023

Heysham 2: LI 640 Consent to start up Heysham 2 Reactor 8 – issued 14 July 2023

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).

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