



# Office for Nuclear Regulation (ONR) Quarterly Site Report for Heysham Power Stations

Report for period 01 April 2017 – 30 June 2017

## 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 quarterly 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 Heysham 1 and 2 Local Community Liaison Committee meetings 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**

1. The ONR site inspectors made inspections on the following dates during the quarter:

#### **Heysham 1**

- 19 - 21 April 2017
- 2 - 5 May 2017
- 10 - 11 May 2017
- 13 - 14 June 2017
- 20 - 21 June 2017

#### **Heysham 2**

- 22 June 2017

2. In addition technical specialists were involved in inspections on the following dates during the quarter:

#### **Heysham 1**

- 19 April 2017
- 3 - 4 May 2017
- 13 - 14 June 2017
- 20 - 21 June 2017

#### **Heysham 2**

- 26-27 April 2017
- 9-11 May 2017
- 22 May 2017
- 21- 22 June 2017

## **2 ROUTINE MATTERS**

### **2.1 Inspections**

3. 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 1999 (IRR99) and the Management of Health and Safety at Work Regulations 1999 (MHSWR99).
4. 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.

5. In this period, the following routine inspections of (Heysham 1 and 2) covered the following:
  - Licence condition 10 – Training
  - Licence condition 11 – Emergency arrangements
  - Licence condition 22 – Modification or experiment
  - Licence condition 23 – Operating rules
  - Licence condition 28 – Examination, inspection, maintenance and testing
6. In addition to the program of site licence compliance inspections, ONR also inspects operating reactors based on safety related systems. Each site has a safety case, which identifies the important aspects of operation and management required for maintaining safety.
7. For both stations at Heysham, the key systems important to nuclear safety will be inspected against the requirements of the safety case. We plan to inspect all the safety significant systems over a five-year period. ONR considers that this will provide additional assurance that operations on the Heysham site are safe. Each of these system inspections considers the relevant licence conditions below:

Licence condition 10: Training  
Licence condition 23: Operating rules  
Licence condition 24: Operating instructions  
Licence condition 27: Safety mechanisms  
Licence condition 28: Examination, inspection, maintenance and testing  
Licence condition 34: Leakage and escape of radioactive material and radioactive waste

8. During the reporting period, the following safety related systems were inspected:

#### **Heysham 1**

- CO2 processing and blow-down systems

#### **Heysham 2**

- Irradiated fuel and Decay store and Maintenance Facilities including plug unit service bay

9. In general, ONR judged the arrangements made and implemented by the site in response to safety requirements to be adequate in the areas inspected. In addition, the safety related systems inspected were considered to meet the requirements of the safety case.
10. However, where improvements were considered necessary, the licensee made satisfactory commitments to address the issues, and the site inspector will monitor progress during future visits. Where necessary, ONR will take formal regulatory enforcement action to ensure that appropriate remedial measures are implemented to reasonably practicable timescales.
11. Taking effect from the 1<sup>st</sup> April, the Nominated Site Inspector for Heysham 1 was changed. The rotation of Nominated Site Inspectors, after a period of time, is routine practice for ONR.

## **2.2 Other work**

#### **Heysham 1**

12. An organisational learning themed inspection took place which focused on the Heysham 1 processes including the corrective action programme, continuous improvement, OPEX and

performance improvement. This involved a team of ONR inspectors undertaking a series of structured discussions with Station personnel including the Station Director, Department Group Heads and Managers.

13. During this period an ONR specialist inspector visited the site to follow up on progress with actions identified in an ONR letter issued to Heysham 1 in December 2016. This related to a contravention of the Lifting Operations and Lifting Equipment Regulations 1998 (LOLER) Regulations. The ONR specialist concluded that progress had been made to address the compliance gap identified in ONR's letter following the station's own investigation and implementation of identified improvements. ONR will continue to monitor this during routine planned inspections.
14. In June ONR structural integrity specialist inspectors visited the site to establish the adequacy of arrangements implemented under the site corrosion management programme. The station was able to demonstrate that for those systems identified as the most high priority defects requiring immediate consideration, processes are being adequately managed. However the station was not able to show sufficient progress with the measures required to prioritise the lower levels of corrosion across the station. Following the intervention, ONR wrote a letter to the Station Director setting out regulatory expectations to close this compliance gap. ONR intends to follow up progress in this area by the end of Quarter 4 2017.

## **Heysham 2**

15. An engineering governance-themed inspection took place which focused on the Heysham 2 Engineering Governance. This involved a team of ONR inspectors undertaking inspection and assessment activities. This intervention involved a series of structured discussions with System Engineers, Engineering Department Group Heads and Managers. A number of Fuel Route personnel were also included.
16. On the 29<sup>th</sup> June 2017 ONR undertook an Annual Review of Safety meeting at Heysham 2. This was attended by the Heysham 2 and Torness nominated site inspectors, the ONR Heysham 2 security inspector and the ONR superintending inspector from within the Operating Facilities Directorate. This involved a half day plant visit, during this Heysham 2 identified its investment areas and improvements and identified those areas where future investment was to be allocated. The second half of the visit was focused upon Heysham 2 providing an overview of its performance for the reporting year.

## **3 NON-ROUTINE MATTERS**

### **Heysham 1**

17. In April, the Heysham 1 Nominated Site Inspector undertook follow-up enquiries into an incident reported to ONR under the site's LC 7 arrangements. The incident involved the failure of the Fixed Jet Fire System (FJFS) whilst undertaking routine deluge testing on turbine plant during of the Reactor Unit 1 statutory outage. This incident led to the station's decision to manually shutdown Unit 2 on 3rd April 2017. The site inspector sampled the station's event recovery process and ongoing internal investigation. From the evidence sampled the Inspector was satisfied that this incident was being adequately investigated and event recovery actions progressed satisfactorily. The event did not impact upon ONR's subsequent decision to consent to the return to service of Reactor 1.

### **Heysham 2**

18. On the 26-27 April 2017 undertook follow-up enquiries following the notification by the station to the ONR nominated site inspector of the contamination of an individual carrying out work on the reactor auxiliary blow-down system filters.

19. On the 22 May 2017 ONR undertook follow-up enquiries following the receipt of an incident notification from Heysham 2 Power Station involving a planned lift of a 32 tonne plug at the Irradiated Fuel Disposal (IFD) facility.
20. In relation to the above two events, ONR wrote to the licensee on the 7<sup>th</sup> July 2017 noting that both events had occurred as a result of similar contributory factors and seeking the station's response on how such events could be avoided. ONR has raised two ONR regulatory issues in respect to these two events and has requested that that station responds to ONR's letter by the end of August 2017.

#### 4 REGULATORY ACTIVITY

21. 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 issue Enforcement Notices to secure improvements to safety.

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

Date	Type	Ref No	Description
April 17	Licence Instrument	LI 612	ONR Consent for Start-up of Reactor 1 Heysham 1 Power Station following 2017 Periodic Shutdown.

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

#### 5 NEWS FROM ONR

##### ONR Chair awarded CBE

22. In the Queen's Birthday Honours announced in June, Chair of the Office for Nuclear Regulation, Nick Baldwin, was appointed a Commander of the Order of the British Empire for services to nuclear safety and security in Britain and to the charitable sector.

##### Regulatory Research Report published

23. ONR has published its [annual regulatory research report](#) which describes the [research activities](#) we have conducted in the past year.
24. The report includes case studies showing how our research strategy has helped support our regulatory approach, and helps to inform the development of best practice. it can be viewed at [www.onr.org.uk/research](http://www.onr.org.uk/research)

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