



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

Report for period 01 July 2014 - 30 September 2014

## 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 of 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

- 29, 30, 31 July 2014
- 7, 26, 27, 28 August 2014
- 12, 16, 18, 25, 26 September 2014

#### Heysham 2

- 15 – 17 July 2014
- 15 – 17 September 2014

2. In addition ONR specialist inspectors undertook inspections on the following dates during the quarter:

#### Heysham 1

- 31 July 2014
- 7, 27, 28 August 2014
- 18 September 2014

#### Heysham 2

- 13 – 14 August 2014

## 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, routine inspections of site covered the following:

- Incidents on the site
- Operational records
- Training
- Emergency arrangements

- Duly authorised and other suitably qualified and experienced persons
  - Nuclear safety committee
  - Periodic shutdown
  - Organisational capability
6. In addition, the following systems were inspected:
- Solid and gaseous radwaste
  - Heating and ventilation
7. In general, ONR judged the arrangements made and implemented by the site in response to safety requirements to be adequate in the areas inspected. 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.

### 2.1.1 Heysham 1

#### Anomalous Boiler Test Result

8. As reported in the last quarterly reports, during the statutory outage of Heysham 1 Reactor 1, November 2013, an anomalous result was found during non-destructive testing of a section of one of the multiple boilers. EdF Energy Nuclear Generation Limited (NGL) subsequently justified a period of six month operation of Reactor 1 on the remaining boilers with the anomalous boiler isolated. ONR assessed the safety justification for this mode of operation and was content that Reactor 1 could operate safely for this period.
9. In the intervening period, NGL developing extensive testing techniques to explain this anomalous result to support future operation of Reactor 1.
10. Reactor 1 was subsequently shutdown on the 10th of June 2014, before the end of the six month period of operation, to allow NGL to deploy the inspection techniques to investigate this anomaly. During deployment of these techniques, they discovered a cracked region in the affected boiler spine around one of the key structural welds.
11. In light of the confirmation of a cracked region on the affected boiler spine on Heysham 1 Reactor 1, known as 1D1 (1-delta-1), NGL has taken a positive and conservative decision to shutdown the other reactors at Heysham 1 and Hartlepool to allow investigations on all of the 8 boiler spines in each reactor. The reactors at Heysham 1 and Hartlepool have a similar boiler design and ONR is satisfied that this issue only affects these reactors due to the nature of their design.
12. NGL are carrying out extensive work to allow the reactors to return to service safely which ONR is closely monitoring. ONR will require an acceptable safety case from NGL before the planned return to service of these Reactors.

### 2.1.2 Heysham 2

#### Emergency Exercise Annual Review Meeting

13. The Heysham 2 Exercise Annual Review Meeting (EARM) was attended by the nominated site inspector for Heysham 2. The purpose of the meeting was to review the status of emergency arrangements, progress any issues from emergency plan tests, actions from previous exercise review meeting and discuss future exercise objectives. The discussions involved Station providing an overview of their emergency

response performance over the past year, however none were significant and involved invoking the emergency plan or the arrangements. A number of achievements of note were also identified over the past year including:

- Successful Level 1 demonstration Exercise Caliban (March 2014)
- Japanese Event Response Proof of Concept (JER POC) Bravo completed for at the Heysham Site
- Emergency Control Centre (ECC) refurbished and improved to include breakout facilities and kitchen
- JER training completed across all emergency teams
- Alternative Access Control Point (ACP) location identified
- Chemical response capability improved and enhanced.

14. I considered that the performance by Heysham 2 over the past year in relation to the emergency arrangements and their implementation at site is adequate, based upon the information presented during the inspection

### 2.1.3 Heysham Site

#### Emergency Planning Consultative Committee (EPCC)

15. The nominated site inspectors for Heysham 1 and Heysham 2 both attended the EPCC meeting. The nominated site inspector for Heysham 1 provided an outline of the development of the revised emergency planning area guidance and the potential impact on the Heysham Site. It was recognised that NGL had just completed its review of the Detailed Emergency Planning Zone (DEPZ) and issued a “no change” submission.
16. In addition, there were a number of other topics discussed within the EPCC meeting including a presentation on the Heysham link road, emergency arrangements overview, off-site planning, training of Strategic Co-ordination Centre (SCC) staff and the enhanced facilities located within SCC.

### 3 NON-ROUTINE MATTERS

17. 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.
18. There were no such matters or events of significance during the period.

### 4 REGULATORY ACTIVITY

19. ONR inspectors, specialist inspectors and HSE inspectors 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.
- No LI s or Enforcement Notices were issued during the period.
20. Reports detailing ONR regulatory decisions can be found on the ONR website at [www.onr.org.uk/pars/](http://www.onr.org.uk/pars/).

## 5 NEWS FROM ONR

Insight into ONR's work as an independent regulator of the nuclear industry can be found in ONR's Quarterly News. The online publication (<http://www.onr.org.uk/onr-quarterly-report.htm>) reports on the key themes and developments in each of ONR's regulatory programmes and provides an update about the ongoing changes at ONR. <http://www.onr.org.uk/index.htm>. For the latest news and updates from ONR visit the website and sign up for our ebulletin (<http://www.onr.org.uk/ebulletin/index.htm>).

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