



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

Report for period 01 April 2015 – 30 June 2015

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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INSPECTIONS

Dates of inspection

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

Heysham 1

- 1 9, 14-17, 21-24, 28 April 2015
- 2 13-15 May 2015
- 3 9-12, 17 June 2015

Heysham 2

- 4 19-20 May 2015
- 5 17 June 2015

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

Heysham 1

- 6 23 April 2015
- 7 5, 15, 20-21 May 2015

Heysham 2

- 8 10, 24, 25, 26, 27 March 2015
- 9 7 April 2015

ROUTINE MATTERS

Inspections

3. Inspections are undertaken as part of the process for monitoring compliance with the following:

conditions attached by ONR to the nuclear site licence granted under the Nuclear Installations Act 1965 (NIA65) (as amended);
Energy Act 2013;
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:

LC11 – Emergency arrangements
LC17 – Management systems
LC21 - Commissioning
LC22 - Modification or experiment on existing plant
LC26 – Control and supervision of operators

LC27 – Safety mechanisms, devices and circuits
LC28 – Examination, inspection, maintenance and testing

6. 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.

Heysham 1

Reactor 2 statutory outage

7. Every three years, each reactor undertakes a periodic shutdown, referred to as its statutory outage, to undertake a programme of maintenance in accordance with the requirements of the plant maintenance schedule and Licence Condition (LC) 30 attached to the nuclear site licence. Under LC 30(3), EDF Nuclear Generation Ltd (EDF NGL) is required to seek ONR's consent to start up a reactor following completion of its statutory outage. On 13 April 2015, Reactor 2 shutdown for its statutory outage.
8. During this period, a number of ONR specialist inspectors visited the station to undertake a number of inspections and assessments to establish that:
 - requirements set out in the plant maintenance schedule have been complied with;
 - work has been carried out in accordance with arrangements for identified safety systems and components and conducted to required quality;
 - any safety issues identified during the reactor outage have been adequately addressed with suitable and sufficient justification to demonstrate safe restart of the reactor and subsequent operation until the next outage.
9. The information gathered during these inspections and assessments will form the regulatory judgement on whether ONR should grant consent to restart Reactor 2 following its statutory outage. The statutory outage is scheduled to be completed in August when ONR will make its regulatory decision. (Post quarter note: ONR granted consent to restart Reactor 2 on 10 August 2015).

Boiler spine cooling modifications

10. As discussed in previous ONR quarterly reports, following the discovery of a cracked region on a boiler spine of Reactor 1, both reactors at Heysham 1 have been operating at reduced power; Reactor 1 on three quadrants with the affected boiler isolated and Reactor 2 operating on all four quadrants.
11. EDF has now produced a safety justification to install a boiler spine cooling modification on all reactors at Heysham 1 and Hartlepool. This modification is intended to reduce the temperature on all four reactors in the section of the spine where the crack was discovered in Heysham 1 Reactor 1.
12. This modification is being fitted during the Reactor 2 statutory outage discussed above. ONR agreement to implementation of this modification is a pre-requisite of ONR granting consent to restart Reactor 2 following its statutory outage. (Post quarter note: ONR granted agreement on 7 August 2015 for the return to service at reduced power of Reactor 2 with the boiler spine cooling modifications implemented).

Heysham 2

13. As previously discussed in paragraph 7, Reactor 7 was shut down for its statutory outage on 27 February 2015. The ONR specialist inspectors undertook inspections and assessment work and assessment reports for each specialist area were produced. The inspections and assessments carried out by ONR specialist inspectors did not identify any issues of safety significance. A Licence Instrument for consent to the start-up of Heysham 2, Reactor 7 was issued on 29 April 2015, granted under Licence Condition 30(3).

NON ROUTINE MATTERS

14. 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 Improvement Notice

15. ONR served an Improvement Notice on EDF NGL following an incident at Heysham 1 power station on 16 March 2015. The incident led to the release of around 30 tonnes of clean Carbon Dioxide from a failed pipe in the Carbon Dioxide storage and distribution plant on site. There was no release of radioactive material, no persons were injured and the two reactors remained operational during the event.
16. Licence Condition 28 Examination, Inspection, Maintenance and Testing requires the licensee to make and implement adequate arrangements for the regular and systematic examination, inspection, maintenance and testing of its facilities. Following a preliminary investigation, ONR inspectors judged that NGL had not met this condition of its nuclear site licence fully and that improvements should be introduced.
17. The Improvement Notice requires the licensee to address the deficiencies in its LC 28 arrangements with respect the Carbon Dioxide storage and distribution plant to ONR by 30 September 2015.
18. In this reporting period EDF NGL has been undertaking a thorough examination of the Carbon Dioxide plant to address the requirements of the Improvement Notice. ONR has been monitoring progress and is satisfied that the work being undertaken should address ONR concerns and meet the requirements of the Improvement Notice.

REGULATORY ACTIVITY

19. ONR 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.

LI 588 – Consent under LC30(3) to the start-up of Heysham 2 Reactor 7 which was in shutdown in pursuance of Condition 30(1) was issued on 29 April 2015
20. Reports detailing ONR regulatory decisions can be found on the ONR website at www.onr.org.uk/pars/.

NEWS FROM ONR

Insight into ONR's work as an independent regulator of the nuclear industry can be found in its quarterly newsletter Regulation Matters. <http://www.onr.org.uk/regulation-matters.htm>. The online publication reports on the key themes and developments against each of ONR's priorities, as well as organisational updates and a focus on key topics.

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>).

CONTACTS

Office for Nuclear Regulation
Redgrave Court
Merton Road
Bootle
Merseyside
L20 7HS

website: www.onr.org.uk
email: ONREnquiries@onr.gsi.gov.uk

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