



# Office for Nuclear Regulation (ONR) Site Report for Hinkley Point B Power Station

Report for period 1 April to 30 June 2018

## 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 of the Site Stakeholder Group and are also available on the ONR website (<http://www.onr.org.uk/llc/>).

Site inspectors from ONR usually attend Site Stakeholder Group meetings where these reports are presented and will respond to any questions raised there. Any person wishing to enquire about matters covered by this report should contact ONR.

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## 1 INSPECTIONS

### 1.1 Dates of inspection

1. The ONR site inspector made inspections on the following dates during the report period:
  - 3 – 5 April 2018
  - 2 May 2018
  - 5 – 6 and 19-20 June 2018
2. In addition, ONR specialist inspectors undertook inspections on the following dates during the quarter:
  - 10 - 11 April (Mechanical Engineering)
  - 17 - 18 April (Control and Instrumentation)
  - 17 April (Electrical)
  - 19 April (Radiological Protection)
  - 17 - 18 April (Structural Integrity)
  - 25 - 26 April (Conventional Safety).

## 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 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.
5. In this period, routine inspections of (site/station) covered the following:

#### Management of operations including control and supervision.

6. This inspection was carried out against Licence Condition 26 (Control and Supervision of Operations). The purpose of this condition is to ensure that all safety related operations are only carried out under the control and supervision of suitably qualified and experienced personnel. This inspection focussed on the control and supervision of operations, including maintenance, during the reactor 4 outage.
7. The ONR inspector carried out plant visits to observe supervision in the field to confirm that procedures for control and supervision were being implemented satisfactorily. The inspector was satisfied that the licensee was meeting relevant good practice when compared to ONR guidance and judged that an Integrated Intervention Strategy (IIS) rating of green is appropriate.

## System Based Inspections (SBI)

8. In addition to our compliance inspections based on the conditions attached to the nuclear site licence, ONR inspectors also inspect operating reactors against safety related systems. Each site has a safety case that demonstrates how it operates safely. For advanced gas cooled reactors, each of approximately thirty key systems will be inspected against the claims made upon them by the safety case. The aim is to systematically inspect all the significant safety related systems within a five-year cycle (six per year) to provide assurance of the site's safe operation and how the safety case is being implemented. Each of these system based 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 (if applicable): Leakage and escape of radioactive material and radioactive waste

9. In this period one system based inspection (SBI) was carried out:

### Transformers, Grid Systems, and Main Electrical System (SBI 09)

10. This System Based Inspection (SBI) was performed as these systems provide the infrastructure for electrical supplies to the entire site, including safety systems. The system needs to be resilient to a fault on the national electrical transmission grid to ensure electrical supplies to relevant safety systems can be maintained. The inspection concluded that Hinkley Point B has arrangements to ensure that the transformers, grid systems, and main electrical system is inspected, maintained and, as necessary, operated in accordance with the safety case. The inspection covered LCs 10, 23, 24, 27, and 28 and was rated as green on the basis that relevant good practice was met and any identified deficiencies in compliance arrangements were of minor significance. No intervention rating was assigned to LC 34 as leakage and escape of radioactive material was not applicable to this SBI

## **2.2 Other work**

11. Site Licence Condition 30 – Reactor 4 was shut down in March 2018 to undertake its Statutory Outage. ONR specialist inspectors and the nominated ONR site inspector carried out inspections during the outage including graphite, quality, structural integrity, conventional safety, electrical and control/instrumentation. The ONR inspectors sampled the outage activities throughout the shutdown and judged them to be adequate.

12. Consent was granted under licence condition 30(3) on 25 May 2018 allowing the licensee to return Reactor 4 to service. ONR's decision to grant consent is supported by a project assessment report which has been published on the ONR [website](#).

13. Familiarisation visits were carried out for the new Nominated Site Inspector, who will be appointed on the 1st July. This included both inspectors carrying out joint inspections, carrying out a joint plant walkdown and attending the Site Stakeholder Group.

### 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. Two non-routine matters arose in the period.

- An unplanned trip of reactor 3 occurred whilst undertaking low power refuelling operations following a fuelling machine hoist overload protection trip. NGL identified the fault, which related to the type of plug in place in the fuel channel. NGL have initiated an investigation to determine the reason the type of plug was not identified before starting the operation.
- During planned inspection of fuel pins in the spent fuel cooling ponds a misalignment of fuel pins was identified. NGL carried out further inspections of spent fuel and identified further examples of fuel pin misalignment. There was no evidence of fuel pin failure or leakage and there was no challenge to the safety case.

### 4 REGULATORY ACTIVITY

15. 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, to include issuing an Enforcement Notice. One Licence Instrument was issued during the period:

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

Date	Type	Ref No	Description
25/05/2018	Licence Instrument	LI 557	Consent to re-start reactor 4 after statutory outage

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

### 5 NEWS FROM ONR

#### Stakeholder Engagement

16. On 9 May we held our ONR annual Industry Conference, with the theme - 'Public Safety – everyone's responsibility.' Delegates from more than 45 different organisations attended, and we were delighted that Richard Harrington, Parliamentary Under Secretary of State, Minister for Business and Industry, was able to join us to deliver a keynote speech. The conference provided us with an opportunity to engage directly with senior representatives from across industry and government on a number of topical and strategic issues affecting the sector.
17. As part of our continued stakeholder engagement work, we welcomed finance professionals from a number of nuclear site licensees and dutyholders to seminars in London and Birmingham in June. Led by our Finance Director, Sarah High, we hosted the seminars to provide the industry with a better understanding of our charging methodology, the principles we apply, and how the charging process works. To accompany the seminars we have also published a new booklet – [How we charge for Nuclear Regulation](#) – which is available on our [website](#).

18. The next ONR/NGO engagement forum will take place on 11 October in London. This is a forum to discuss strategic, cross-cutting regulatory matters. Site specific matters are normally addressed via Site Stakeholder Groups. We are always keen to engage with a range of stakeholders and groups on nuclear safety and security issues, so if you do represent a nuclear-interest Non-Governmental Organisation, and are not already involved through our forum or via a Site Stakeholder Group, then please get in touch with the ONR Communications team for further details, via [contact@onr.gov.uk](mailto:contact@onr.gov.uk)

### Regulatory News

19. A delegation from ONR, led by Chief Nuclear Inspector Mark Foy, supported the UK's contribution to the 6th Joint Convention review meeting in Vienna. Bringing together 78 countries from around the world, the Joint Convention on the Safety of Spent Fuel Management and the Safety of Radioactive Waste Management is the world's leading international forum for ensuring society and the environment are protected from hazards arising from spent fuel and radioactive waste. Further details can be found on the [IAEA website](#).

20. We have notified Sellafield Ltd of our intention to prosecute the company for offences under Section 2 (1) of the Health and Safety at Work etc. Act (1974). The charge relates to an incident on 5 February, 2017, at a facility which handles special nuclear materials, which resulted in personal contamination to a Sellafield Ltd employee. The decision to prosecute follows an ONR investigation into the incident.

21. In May we awarded the contract for delivery of the UK Nuclear Safeguards Information Management and Reporting System (SIMRS) to Axis 12 Ltd. The IT system is necessary for us to establish a domestic safeguards regime after the UK's withdrawal from the Euratom Treaty. The government has now launched the consultation on Nuclear Safeguards Regulation, further details can be found on our [website](#).

### Corporate News

22. In May we published a self-assessment exercise to update on how well our activity currently aligns with the Regulators' Code, which came into effect in April 2014 to provide a framework for how regulators should engage with those they regulate. The full report is available on our [website](#).

23. In June we published our Annual Report and Accounts highlighting the extent of our regulatory activities. During the 17/18 year over 1,000 inspections were carried out across 36 licensed sites and transport dutyholders, ensuring the required standards of safety and security were met to protect the public and workers. The full report is available on our [website](#).

24. In July we published our second [gender pay report](#). The organisation-wide results show that ONR has a mean gender pay gap of 35.2%, which is wider than last year, although it is broadly similar to the rest of the UK nuclear industry and anticipated given our workforce profile, and that of the industries from which we have historically recruited. ONR is committed to addressing this issue and continues to focus on improving diversity and inclusion.

25. Our Chief Executive, Adrienne Kelbie, has agreed a three-year contract extension, taking her term of employment to January 2022.

## 6 CONTACTS

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