



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

Report for period 1 October to 31 December 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 for 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:
 - 15 – 16 October 2018
 - 5 – 8 November 2018
 - 17-20 December 2018
2. In addition, ONR specialist inspectors undertook inspections on the following dates during the quarter:
 - 15 – 16 October (Boiler Feed System)

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 2017 (IRR17) 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, there were no routine compliance inspections of Hinkley Point B.

System Based Inspections (SBI)

6. 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). ONR believes that this will provide more robust assurances 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

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

Boiler Feed System (SBI 03)

8. This System Based Inspection (SBI) was performed as the Boiler Feed System is used as part of the cooling system for the reactor. The aim of the inspection was to confirm that the Boiler Feed System, with its associated operating instructions and maintenance schedule, is able to meet the safety case functional requirements. The Inspection concluded that the parts of the Boiler Feed System that were inspected met the requirements of the safety case and were adequately safe and LCs 10, 23, 24, 27 and 28 were rated as green.

2.2 Other work

9. No other significant work was undertaken during the period.

3 NON-ROUTINE MATTERS

10. 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. One non-routine matters arose in the period.

- Following a pressure test and return to service of part of the CO2 system, moisture was identified within the CO2 system. The system remained fully available to provide pressure support to the reactors and reactor moisture levels remained within normal limits, however a potential risk was identified to 8 new and 6 irradiated fuel assemblies stored in the buffer store. The station assessed the risk and safely dismantled the irradiated fuel and is in the process of writing a safety case to allow the unirradiated fuel to be used in the reactor.

4 REGULATORY ACTIVITY

11. 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. During the period ONR issued one Enforcement Letter.

12. The enforcement letter related to an SBI carried out in September 2018 on the Irradiated Fuel Dismantling Facility (IFDF) where a significant shortfall was identified with respect to training in response to a change in the actions required by the operator in the case of dropped fuel. The letter required EDF to address the compliance breaches identified, by the 31st January 2019.

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

Date	Type	Ref No	Description
			None issued during the period

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

13. During the period, EDF Energy Nuclear Generation Ltd and Doosan Babcock Ltd, a contractor on the site, pleaded guilty to offences under the Health & Safety at Work etc. Act 1974, section 3(1) and the Work at Height Regulations 2005, Regulation 4(1) respectively. The charges relate to an incident on 12 April 2017 at Hinkley Point B which resulted in injury to a Doosan Babcock Ltd employee. The incident was a conventional health and safety matter and there was no radiological risk to workers or the public. Sentencing is expected to take place on 1st February 2019.

5 NEWS FROM ONR

October:

14. We welcomed the [publication](#) of the key review of operational safety performance at Torness nuclear power station, published by the International Atomic Energy Agency and the UK government. The report highlights eight areas of good practice at Torness and offers proposals for further improvements, which we fully support.
15. Following our decision to prosecute, EDF Energy Nuclear Generation Ltd and Doosan Babcock Ltd pleaded guilty to offences at Hinkley Point B under the Health & Safety at Work etc. Act 1974, section 3(1) and the Work at Height Regulations 2005, Regulation 4(1) respectively. The incident was a conventional health and safety matter, with no radiological risk to workers or the public. [A sentencing date](#) has been set for 1 February 2019 at Taunton Crown Court.

November:

16. Following a rigorous procurement process, we appointed six nuclear supply chain organisations to our new [Technical Support Framework \(TSF\)](#). The new TSF, which came in to effect on 1 November 2018, has been established to provide a renewed and modernised framework for procuring technical support. We use this technical support to obtain, for example, expert technical assessments, access to specialist software or modelling, or access to niche skill sets that we do not retain in-house.
17. The revised Nuclear Safety Directive introduced a European system of Topical Peer Review in 2017 and every six years thereafter. We played a leading role in the preparations for the first European ‘Topical Peer Review’ on Ageing Management of Nuclear Power Plants and welcome the publication of the [first peer review report](#) by the European Nuclear Safety Regulator Group. We are pleased that a number of our experts made a valuable contribution to the exercise alongside 16 European countries as well as Norway, Switzerland and Ukraine. The UK report was authored jointly between ourselves, EDF Nuclear Generation Ltd and EDF-NNB GenCo.
18. [The Atomic Weapons Establishment \(AWE\) was fined £1 million](#) after admitting offences under Section 2 (1) of the Health and Safety at Work etc. Act (1974). The incident, which occurred on 27 June 2017 was a conventional health and safety matter and there was no radiological risk to workers or the public. The prosecution was the result of our investigation into the incident.
19. In conjunction with the Environment Agency, we announced the completion of our [initial high level scrutiny](#) of the UK HPR1000 reactor design.

20. We provided NNB Genco (HPC) Ltd (NNB GenCo) with [consent](#) to commence the unit 1 Nuclear Island concrete pour at Hinkley Point C (HPC). We also hosted our third webinar to explain our permissioning role for the Nuclear Island concrete pour at HPC and to provide information on our work to ensure that the new nuclear power station is built to the standards expected in the UK. Amongst others, a number of Site Stakeholder Group members joined the webinar and we received excellent feedback. We are planning further webinars on various topics in 2019. If you would like to find out more, please contact the ONR Communications team at contact@onr.gov.uk
21. After 16 years of decommissioning work, Bradwell became the first of the Magnox nuclear power stations to receive our permission to enter into a period of “care and maintenance”.
22. The nuclear safeguards regulations which will enable ONR to set up the domestic safeguards regime following Euratom withdrawal, were laid in Parliament. The Government published the details, [alongside its response and the feedback to consultation on the draft regulations on its website](#).

December:

23. [Court proceedings continued](#) in our prosecution of Sellafield Ltd for offences under Section 2 (1) of the Health and Safety at Work etc Act (1974).
24. Reactor 3 at Hunterston B remains offline after being shut down following a routine inspection into cracks in its graphite core, in March 2018. [Cracking of the graphite bricks in Advanced Gas-cooled Reactors](#) such as Hunterston B is expected as the reactors age. However, the number of cracks found during the inspection of Reactor 3 has led to the licensee, EDF Nuclear Generation Limited, carrying out further inspections of the core. Reactor 4 at Hunterston B was taken offline in October for an inspection of its graphite core. EDF Energy has submitted a safety case for Reactor 4 and is preparing one for Reactor 3. We will assess both safety cases to determine whether the reactors are safe to return to service. Neither reactor may restart without our consent, which we will give only if it is safe to do so.
25. The Government published a [Written Ministerial Statement](#) on implementing Geological Disposal, announcing the publication of its [Working With Communities policy](#) and the launch of a consent-based process to find a site to host a Geological Disposal Facility (GDF). While we have no formal role in identifying the site for a GDF, any future facility will need to meet the high standards of safety and security required of a licensed nuclear site.

All our latest news is available on our website www.onr.org.uk

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Published 03/18

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