



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

Report for period 1 July to 30 September 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:
 - 17 – 18 July 2018
 - 14 – 15 August 2018
 - 3 -5 and 25 - 26 September 2018
2. In addition, ONR specialist inspectors undertook inspections on the following dates during the quarter:
 - 4 – 5 September (Nuclear Safety, Emergency Preparedness and Response and Fire Safety)
 - 25 – 26 September (Fuel and Core and Control and Instrumentation)

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, routine inspections of Hinkley Point B covered the following:

Consignment of Nuclear Matter.

6. This inspection was carried out against Licence Condition 5 (Consignment of Nuclear Matter). The purpose of this licence condition is to control the sites that certain types of nuclear matter are consigned to and to require that records are kept of all nuclear matter consigned from the site.
7. The ONR Inspector sampled the licensee's arrangements and records generated for Radioactive Material Transport and for Fuel Transport in particular. The ONR inspector was satisfied that the licensee arrangements and their implementation were in compliance with LC5. The inspector was satisfied that an IIS rating of green against LC5 is merited.

Radiological Protection

8. This Inspection was carried out against Licence Condition 18 (Radiological Protection). The purpose of this licence condition is to require the licensee to have arrangements for assessing the average effective dose and to allow ONR to set a level of average effective dose that would require notification to ONR if exceeded.
9. The ONR inspector sampled the licensee's arrangements for dose assessment and classification of groups, as well as the records of the average dose assessment for the classes of people described in the licensee's arrangements. The Inspector was satisfied that the licensee arrangements and their implementation were in compliance with LC18. The Inspector was satisfied that an IIS rating of green against LC18 was merited.

Incidents on Site

10. This Inspection was carried out against Licence Condition 7 (Incidents on Site). The purpose of this licence condition is to ensure that incidents on the site are notified, recorded, investigated and reported by the licensee.
11. The ONR inspector sampled the licensee's arrangements for screening of events, the reporting and notification of events to ONR, the sentencing of events to ensure an appropriate level of investigation and the quality of investigations. The Inspector noted that a number of Follow Up Reports for events that had been formally notified to ONR were overdue and a formal level 4 issue was raised to ensure that this was addressed. The inspector was satisfied that the licensee arrangements and their implementation were in compliance with LC7 and that an IIS rating of green against LC7 was merited.

Organisational Capability

12. This Inspection was carried out against Licence Condition 36 (Organisational Capability). The purpose of this licence condition is to ensure the licensee provides and maintains adequate financial and human resources to ensure the safe operation of the licensed site, and make and implement arrangements to control any change to its organisational structure or resources which may affect safety.
13. The ONR inspector sampled the licensee's arrangements for developing and maintaining the baseline as well as the effectiveness of the vulnerability analysis for the organisation. The inspector also sampled some examples of change assessments and the control of their implementation. The inspector noted that whilst the changes sampled appeared to be well controlled, there was a lack of clarity over which actions were required to be completed before a change was implemented and a formal level 4 issue was raised to address this. Overall The inspector was satisfied that the licensee arrangements and their implementation were in compliance with LC36 and that an IIS rating of green against LC36 was merited.

System Based Inspections (SBI)

14. 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

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

Irradiated Fuel Dismantling Facility (SBI 16)

16. This System Based Inspection (SBI) was performed, because of the potential for a fault during certain operations within this facility to result in an off-site consequence. The aim of the inspection was to confirm that the Irradiated Fuel Dismantling Facility (IFDF), with its associated operating instructions and maintenance schedule, is able to meet the safety case functional requirements. The Inspection concluded that overall the IFDF system met the requirements of the safety case and was adequately safe and LCs 23, 24, 27 and 28 were rated as green. However, 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, which was rated as amber. A formal level 3 regulatory issue was raised to address this and in accordance with ONR arrangements the finding with respect to training will be considered against ONR's Enforcement Management Model.

2.2 Other work

17. On 5 September 2018, ONR observed the annual Level 1 demonstration emergency exercise. The scenario was agreed with ONR before the exercise and provided a sound basis to test the station's emergency arrangements. The exercise scenario involved a large fuel spill from a delivery tanker causing a fire, which had a potential threat to nuclear safety due to the proximity to safety related equipment. The scenario included a significant amount of casualties at different locations and with different injuries. In addition the scenario involved a failure of the electronic muster system and the loss of the control room supervisor part way through the exercise due to illness. The exercise was designed to put the Access Control Point and casualty management under pressure. The exercise objectives were met and ONR observed a number of areas of good practice and also some opportunities for further improvement. Overall ONR judged this to have been an adequate demonstration of the station's arrangements made under Licence Condition 11.

3 NON-ROUTINE MATTERS

18. 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.

- During a pause in refuelling operations, one of the emergency diesels required to support refuelling stopped operating. This was found to be due to a valve supplying fuel to the diesel not being opened fully. An investigation by the licensee is on-going, but the immediate cause appears to be due to stiffness of the valve, making the operator believe the valve was fully open, when this was not the case. The valve was fully opened and the diesel confirmed to be operational before refuelling operations were restarted.

4 REGULATORY ACTIVITY

19. 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. No licence instruments or enforcement notices were issued during the period:

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

| Date | Type | Ref No | Description |
|------|------|--------|-------------|
| | | | |

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

20. During the period of this report, the ONR notified EDF Energy Nuclear Generation Ltd and Doosan Babcock Ltd, a contractor on the site, of its intention to prosecute both companies. 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. EDF Energy Nuclear Generation Ltd will be prosecuted for offences under the Health & Safety at Work etc. Act 1974, section 3(1), and Doosan Babcock Ltd for offences under the Work at Height Regulations 2005, Regulation 4(1). The decision to prosecute followed an investigation into the incident by ONR. At a hearing at Taunton Magistrates Court on 10 October, 2018, both EDF Energy Nuclear Generation and Doosan Babcock pleaded guilty to the charges. The case was then committed for sentencing at Taunton Crown Court with an initial hearing date set for 16 November, although this date is subject to change.

5 NEWS FROM ONR

Stakeholder Engagement

21. As part of our continued stakeholder engagement work, in June we welcomed finance professionals from a number of nuclear site licensees and dutyholders to seminars in London and Birmingham. 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](#).
22. In August our Chief Nuclear Inspector Mark Foy and Deputy Chief Inspector Mina Golshan, hosted a webinar for stakeholders on the outcomes of the UK report to the Joint Convention. This is a new channel of communication which we have introduced and further webinars are planned for November and February 2019. If you would like to find out more, please contact the ONR Communications team (contact@onr.gov.uk)
23. The next ONR/NGO engagement forum took 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

Regulatory News

24. On 25 July we announced our decision to prosecute the Atomic Weapons E for offences under Section 2 (1)* of the Health and Safety at Work etc. Act (1974). This charge related to an electrical incident on 27 June 2017 which resulted in injury to an AWE employee. The incident was a conventional health and safety matter and there was no radiological risk to workers or the public. At a court hearing on 18 September, AWE pleaded guilty to the charge. Sentencing has been adjourned until 9 November 2018.

Corporate News

25. 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.

26. We have recently published our [Statement of civil incidents](#) meeting the Ministerial Reportable Criteria (MRC) reported to ONR - Q2 2018 (1 April 2018 to 30 June 2018). Full details are available on our [website](#).

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

28. The Department for Work and Pensions has started the process for recruiting a new ONR Chair (further details can be found on the [public appointments website](#)). The current Chair, Nick Baldwin CBE, will remain in office until 31.3.19.

6 CONTACTS

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