



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

Report for period 1 January to 31 March 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 quarterly to members of the Site Stakeholder Group (SSG) and are also available on the ONR website (<http://www.onr.org.uk/llc/>).

Site inspectors from ONR usually attend Hinkley Point SSG meetings and will respond to any questions raised there. Any person wishing to enquire about matters covered by this report should contact ONR.

## TABLE OF CONTENTS

1	INSPECTIONS .....	3
2	ROUTINE MATTERS .....	3
3	NON-ROUTINE MATTERS .....	5
4	REGULATORY ACTIVITY .....	5
5	NEWS FROM ONR .....	6
6	CONTACTS .....	7

## 1 INSPECTIONS

### 1.1 Dates of inspection

1. The ONR nominated site inspector undertook inspections, supported where appropriate by specialist inspectors, on the following dates during the quarter:
  - 16 - 18 January 2018
  - 6 - 8 February 2018
2. ONR's civil nuclear security inspectors, supported where appropriate by specialist inspectors, undertake quarterly inspections at Hinkley Point B. The quarter 1 planned inspection was undertaken on:
  - 30 – 31 January 2018

## 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);
  - the Regulatory Reform (Fire Safety) Order 2005;
  - the Nuclear Industries Security Regulations 2003.
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. Where relevant, 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, the following routine inspections were undertaken:
  - Control Of Major Accident Hazards (COMAH)
  - Lifting Operations and Lifting Equipment Regulations (LOLER)
6. Control Of Major Accident Hazards (COMAH) - This inspection was undertaken jointly by ONR, HSE and EA inspectors termed the 'COMAH competent authority' on 18 January 2018. A plant walk down of the key areas was undertaken, this included the fuel oil bulk storage tanks, chemical storage tanks (ammonia and hydrazine) and a review of the secondary and tertiary containment improvements. Other areas sampled included design documentation, scheme of examination, integrity assessments and the roles and responsibilities of those responsible for compliance with COMAH regulations. Overall, the inspection concluded that the licensee was making adequate progress in all areas of COMAH compliance including improvements to the secondary and tertiary containment. A number of

positive observations were made and a number of areas for improvement were also provided to the licensee at the feedback session.

7. Lifting Operations and Lifting Equipment Regulations (LOLER). ONR inspectors carried out a LOLER compliance inspection at Hinkley Point B. LOLER regulations place duties on people and companies who own, operate or have control over lifting equipment. LOLER also requires that all equipment used for lifting is fit for purpose, appropriate for the task, suitably marked and, in many cases, subject to statutory periodic 'thorough examination'. ONR inspectors sampled lifting plans, maintenance schedules, statutory examinations and training records of those undertaking these activities. An inspection of the equipment store was also undertaken. Based on the documentation sampled and discussions with staff, inspectors were satisfied that the licensee's arrangements as implemented at Hinkley Point B are adequate and thus compliant with LOLER regulations. We judged that an Integrated Intervention Strategy (IIS) rating of green is appropriate.
8. In addition to the program of site licence compliance inspections, ONR also inspects operating reactors based on safety related systems. Each site has a safety case, which identifies the important aspects of operation and management required for maintaining safety. For Hinkley Point B, the key systems important to nuclear safety will be inspected against the requirements of the safety case over a five-year period. ONR considers that this will provide additional assurance that operations on the site are safe. Each of these system 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. During the reporting period, the following safety related systems were inspected:

#### Liquid Radioactive Waste

10. This System Based Inspection (SBI) of the liquid radioactive waste management system focused on the Active Effluent Treatment Plant (AETP). The AETP is used for the collection, storage, treatment and discharge of radioactive effluent from the reactor buildings, the Gas Circulator Workshop and the Combined Radioactive Waste Disposal (CRAWD) facility. Potentially radioactive liquid effluents are transferred to one of two Reception Tanks in the AETP where the effluent is treated to remove oil using skimming and a Vertical gravity Separation oil removal system. The treated effluent is then pumped to one of two Hold-up Tanks via hydrocyclone pumps to provide further oil removal. The effluent is then filtered to remove particulate material prior to transfer to the Final Delay Tanks, where it is sampled to ensure it meets the limits specified in the site's Environmental Permit prior to discharge.
11. This intervention was undertaken jointly with the Environment Agency.
12. After considering the totality of evidence examined during the inspection of the liquid radioactive waste system at Hinkley Point B, ONR inspectors judged that compliance with LC 23, 24, 27 28 and 34 met the expected standards and were rated as green. We judged that compliance with LC 10 did not meet the expected standards and thus rated this as amber. However, overall ONR judged that the liquid radioactive waste system met the requirements of the safety case. The

LC10 compliance findings were associated with inconsistencies in the training records and the approved procedures that have been implemented at the AETP. The licensee has subsequently addressed the gaps identified by ONR.

## 2.2 Other work

13. A themed inspection was undertaken by a team of ONR inspectors to evaluate EDF Energy Nuclear Generation Limited (NGL) Hinkley Point B's Organisational learning (OL) by examining how well the site learns lessons from internal and external sources in order to continuously improve leadership, organisational capability, safety decision making and safety performance (ONR's Safety Assessment Principle (SAP) MS4: Learning). This included a licence compliance inspection of NGL's arrangements for LC 7 (incidents on the site). This forms one of a series of interventions to be carried out across the EDF fleet of nuclear sites.
14. ONR inspectors observed a number of operational and maintenance meetings, sampled significant investigations undertaken by the licensee and held structured discussions with members of staff. Based on a sample of interviews, observations and document reviews inspectors were satisfied that the licensee's arrangements in relation to organisational learning are effective and the arrangements in place for compliance against LC 7 are suitable and sufficient. In accordance with the ONR inspection rating guide, a green rating was awarded, with no formal regulatory action being required.

## 3 NON-ROUTINE MATTERS

15. On 16 January 2018, ONR inspectors visited the Hinkley Point B site to undertake planned inspections of EDF Energy Nuclear Generation and Doosan Babcock's arrangements to judge whether the requirements of Improvement Notices served upon the two dutyholders had been complied with. As previously reported to the SSG, a Doosan Babcock employee suffered serious back injuries as a result of a fall from height at the site on 12 April 2017.
16. Based on the discussions held with EDF and Doosan Babcock staff, plant inspection and the evidence gathered during this visit, ONR inspectors were satisfied that both dutyholders had complied with the requirements of their respective Improvement Notices.

## 4 REGULATORY ACTIVITY

17. 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 issue Enforcement Notices to secure improvements to safety.
18. Hinkley Point B, Reactor 3 was safely shutdown on 2 February 2018 for its planned inspection of the graphite bricks that make up the reactor core. This inspection work is in accordance with the licensee's extant safety case. A total of 26 fuel channels were inspected and the results verified and sentenced in accordance with the licensee's governance arrangements for graphite inspection and assessment. The licensee reported that the results were within the limits and conditions of its safety case. ONR inspectors examined the verified results and the supporting documentation and were content that the licensee had drawn a reasonable and adequate conclusion based on the inspection data. Reactor 3 returned to service on 19 February 2018.

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

Date	Type	Ref No	Description
N/A			No Licence Instruments or Enforcement Notices were issued during the period

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

## 5 NEWS FROM ONR

19. In January, ONR received the results of its first external stakeholder survey, which was undertaken by YouGov on behalf of ONR. A broad range of stakeholders were invited to participate in an online survey, with 351 responses received. In addition to the online survey, a number of in depth interviews were also completed with stakeholders. While overall the results demonstrate ONR is seen as a high performing organisation with good levels of stakeholder confidence, there are areas where improvements can be made and we will be working on these in the coming months. Further details about the survey results can be found in our March 2018 newsletter available on ONR's website.
20. In February, ONR held its first webinar following the publication of the 'Guide to enabling regulation in practice.' Chief Nuclear Inspector, Mark Foy, and Deputy Chief Inspector, Mike Finnerty, were on hand to answer questions about the guide, which has been designed to illustrate working examples of enabling regulation in practice. This is a new channel of communication for ONR and we'll be holding further webinars on different topics over the coming months. If you would like to join future webinars, please get in touch with the ONR Communications team via [contact@onr.gov.uk](mailto:contact@onr.gov.uk)
21. In March, ONR held the first of two meetings this year with representatives from across the NGO community. Held in Birmingham, the meeting was attended by fifteen NGO representatives from eleven different organisations. Topics discussed included: domestic safeguards pending the withdrawal of the UK from Euratom, emergency planning arrangements and the ONR Stakeholder Survey results. The next meeting is scheduled to take place in October 2018. We are keen to increase the number of people engaging with ONR on nuclear safety and security issues and would like to invite members of SSGs and LCCs to join our engagement programme. For more details, please get in touch via [contact@onr.gov.uk](mailto:contact@onr.gov.uk).
22. For the latest news and updates from ONR visit the website and sign up for our e-bulletin (<http://www.onr.org.uk/ebulletin/index.htm>).

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