



# Office for Nuclear Regulation (ONR) Quarterly Site Report for Hunterston B

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 quarterly to members of the Hunterston B Site Stakeholder Group (SSG) and are also available on the ONR website (<http://www.onr.org.uk/llc/>).

Site inspectors from ONR usually attend Hunterston SSG meetings 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 nominated site inspector made inspections, supported where appropriate by specialist inspectors, on the following dates during the quarter:
  - 11 - 12 July 2018
  - 14 - 15 August 2018
  - 26 - 27 September 2018
2. ONR's civil nuclear security inspectors, supported where appropriate by specialist inspectors, undertake quarterly inspections at Hunterston B.
  - No security inspections were carried out during this quarter.

## 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 etc. (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).
  - The Fire (Scotland) Act 2005
  - The Nuclear Industries Security Regulations (NISR) 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. 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 Hunterston B covered the following:
  - Licence condition 7 – Incidents on the site
  - Licence condition 36 – Organisational capability
6. In general, ONR judged the arrangements made and implemented by the site in response to safety requirements to be adequate. 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.
7. Licence condition 7 – On 11 July the Site Inspector carried out an inspection of the implementation of the EDF organisational learning process. The inspection found that there is a healthy reporting culture and events are being categorised correctly and investigated appropriately. The inspection noted that those areas where the station can improve upon its performance have already been self-identified by the station and an improvement plan is in progress. A rating of Green (no formal action) was therefore assigned.

8. Licence condition 36 - On 26 September the Site Inspector carried out an inspection against the requirements for organisational capability. The inspection examined the implementation of the EDF management of organisational change (MOC) process. From a sample of organisational change proposals it was confirmed that the station is following the MOC process adequately and therefore is meeting relevant good practice. There are some areas where improvement can be made and two recommendations were made to enhance the justification and independent oversight of MOC proposals. These will be tracked to closure through routine interactions with the station. A rating of Green (no formal action) was therefore assigned.
9. In addition to our routine 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 are 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 assurance of the site's safe operation and how the safety case is being implemented.
  - A system based inspection (SBI) on the station Transformers, Grid Systems and Main Electrical Systems was carried out on 14 and 15 August by specialist control and instrumentation (C&I) and electrical inspectors. The inspection sought to establish whether the transformers, grid systems and main electrical systems are able to fulfil their safety functional requirement which is to ensure that electrical power is distributed to safety systems and plant under normal and abnormal operating conditions. The inspection confirmed that the systems are properly connected, in working order and that their configuration is being adequately controlled. Overall the inspectors judged that the electrical systems were being maintained and operated in accordance with the safety case. A rating of Green (no formal action) was therefore assigned
10. ONR also carries out themed inspections which seek to evaluate the effectiveness and consistency of implementation of the licensee's processes and procedures. These inspections are carried out at the site and across the EDF fleet and usually require a team of four specialist ONR inspectors. Inspection topics have included Engineering governance, Control and Supervision and Organisational learning.
  - During this period no themed inspections were carried out.

### **3 NON-ROUTINE MATTERS**

11. 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.
12. Licence Condition (LC) 7 requires licensees to make and implement adequate arrangements for the notification, recording, investigation and reporting of incidents occurring on the site, (see LC7 inspection reported above). During this period, the site inspector reviewed incidents that met the criteria for routine reporting to ONR. The site and specialist inspectors also sampled the station's follow up reports and corrective actions. From the evidence sampled, the inspector was satisfied that the reported incidents had been adequately investigated and appropriate event recovery actions identified. Matters and events reported to ONR during the period included:
  - The site Public Address (PA) system failed as a result of a power supply fuse failure. This prevented the sounding of the site emergency tannoy. The station undertook the prescribed action to restrict access to the 'B' station to persons equipped with radios. The PA system failure was investigated and power was

restored within 2 hours. The station has confirmed that the PA system is supplied from the no break power supply and that it is subject to an appropriate maintenance and inspection regime. Some learning has been identified from this event; the station is improving guidance to Shift Managers to clarify response actions and to clarify the advice to the engineering team on power supply fault finding.

- During low power refuelling at Reactor 4 it was identified that the charge machine should have contained a new fuel assembly (NFA) for loading into the reactor. Subsequent checks confirmed that the NFA was still located at the buffer store. The nuclear significance of the event was considered minor; representing a loss of control of nuclear material within the Charge Machine and Buffer Store, but did not result in a contravention of the limits and conditions appropriate to these areas or present a risk to workers. The event has been investigated and a number of changes to Operating Instructions are proposed along with ergonomic changes to the Charge Machine. ONR is satisfied with the EDF actions in response to this event.

#### 4 REGULATORY ACTIVITY

13. 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.
14. No Enforcement Notices (Improvement or Prohibition notices) were issued during the period.
15. Reactor 3 was shut down on 9 March 2018 for its planned inspection of the graphite bricks that make up the core. Cracking of the graphite bricks in Advanced Gas-cooled Reactors is expected as the reactors age. EDF has completed its inspection programme for the Reactor 3 core. ONR is satisfied that the reactor remains safely shut down with adequate cooling being provided whilst EDF continues to prepare a safety case to justify a further period of safe operation.
16. ONR has communicated to EDF NGL that Hunterston B Reactor 3 cannot be returned to service until an adequate safety case has been provided that demonstrates to ONR's satisfaction that the reactor can continue to be operated safely.

#### 17. NEWS FROM ONR

##### Stakeholder Engagement

18. 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 at [contact@onr.gov.uk](mailto:contact@onr.gov.uk).
19. The ONR/NGO Forum meeting 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](mailto:contact@onr.gov.uk).

### Regulatory News

20. On 25 July we announced our decision to prosecute the Atomic Weapons Establishment 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 and sentencing was adjourned until 9 November, 2018.
21. In a separate case brought by ONR, EDF Energy Nuclear Generation Ltd and Doosan Babcock Ltd pleaded guilty on 10 October, 2018) 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 the Hinkley Point B nuclear power station, which resulted in a serious injury to a Doosan Babcock Ltd employee. Following a hearing at Taunton Magistrates Court, the case was committed for sentencing at Taunton Crown Court with an initial hearing date set for 16 November 2018, although this date is subject to change.
22. Both of these cases related to conventional, industrial-type incidents that would have been subject to regulation by the Health and Safety executive prior to ONR's creation four years ago, when we gained responsibility for such matters on licensed sites. There was no radiological risk to workers or the public.
23. Updates on each case will be published on our website [www.onr.org.uk](http://www.onr.org.uk).
24. 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](#).

### 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. Our Chief Executive, Adrienne Kelbie, has agreed a three-year contract extension, taking her term of employment to January 2022.
27. 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](#)). Our current Chair, Nick Baldwin CBE, will remain in office until 31 March, 2019.
28. For the latest news and updates from ONR visit the website and sign up for our newsletter (<http://www.onr.org.uk/ebulletin/index.htm>).

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