



# Office for Nuclear Regulation (ONR) Site Report for AWE Aldermaston and Burghfield

Report for period 1 August 2018 to 31 January 2019

## Foreword

This report is issued as part of ONR's commitment to make information about inspection and regulatory activities relating to the Aldermaston and Burghfield sites available to the public. Reports are distributed to members for the Local Liaison Committee and are also available on the ONR website (<http://www.onr.org.uk/lc/>).

Site inspectors from ONR usually attend Aldermaston and Burghfield Local Liaison Committee meetings and will respond to any questions raised there. Any person wishing to inquire about matters covered by this report should contact ONR. The AWE Local Liaison Committee meeting has now moved to a four month frequency. This ONR report (period 1<sup>st</sup> August - 31<sup>st</sup> January) covers a six month period in order to meet with the new meeting frequency and provide the most current position. The reports that follow will then cover a four month period; consistent with the new meeting frequency.

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## 1 INSPECTIONS

### 1.1 Dates of inspection

ONR inspectors carried out inspections on the following dates during the period:

- August 6-9
- September 3-6, 19
- October 1-4, 9,10,22,23
- November 1, 5-8, 19
- December 3-7, 13,17,18
- January 14-17, 22-24, 28

## 2 ROUTINE MATTERS

### 2.1 Inspections at Aldermaston and Burghfield

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 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 36 conditions attached to the nuclear site licence in order to ensure legal compliance. Inspectors seek to judge both the adequacy of these arrangements and their implementation.

In this period, routine inspections at Aldermaston and Burghfield covered the following Licence Conditions (LC):

- LC10 Training
- LC11 Emergency arrangements
- LC17 Management systems
- LC21 Commissioning
- LC23 Operating rules
- LC24 Operating instructions
- LC27 Safety mechanisms, devices and circuits
- LC28 Examination, inspection, maintenance and testing
- LC34 Leakage and escape of radioactive material and radioactive waste
- LC35 Decommissioning
- LC36 Organisational capability

Also inspected:

- Convention Health and Safety Inspection covering Asbestos Management
- IRR (Ionising Radiation Regulations)

ONR judged the arrangements made and implemented by AWE in response to safety requirements to be adequate in the majority of areas inspected.

Where improvements are considered necessary following inspections, ONR may consider whether regulatory enforcement action is appropriate to ensure that remedial actions are taken in reasonably practicable timescales. ONR is raising three regulatory issues relating to LC17. This was due to weaknesses in arrangements associated with implementation of the Counterfeit Fraudulent and Suspect Items (CFSI) policy, strategy for managing plant obsolescence and like for like replacements and the arrangements regarding purchasing cards for procurement of safety significant items. To date, AWE has responded positively to the areas of concern.

Another regulatory issue was raised following an Amber rated inspection against LCs 10, 23, 24 and 28 as part of systems based inspection to implement a new Safe Operating Envelope (SOE) in a legacy production facility. The issue relates to the current position with respect to readiness for implementation of the SOE. However, AWE has produced a detailed plan for implementation, which is intended to satisfy the required regulatory and operational outcomes. The Issue will allow the licensee time to further develop its SOE. ONR will conduct a further inspection at that point where the first part of the SOE is ready for implementation.

Two further regulatory issues are in the process of being raised following a recent Amber rated inspection that took place in January. The issues relate to the use of draft documentation under LC24 and the inadequate demonstration of process shutdown and unambiguous labelling of e-stops under LC28.

## **2.2 Other work**

AWE continues to progress engineered and documentary upgrades to address its shortfall findings from the Burghfield Periodic Review of Safety (PRS2). ONR is content to support current operations in the short term whilst this work continues. To enable ONR to support operations in the longer term AWE will, in accordance with their LC15 arrangements, need to address PRS2 shortfalls and produce a PRS2 closeout report which includes a demonstration that risks have been reduced so far as is reasonably practicable. This report will be subject to ONR technical review, and ONR is working closely with AWE to gain assurance that the programme of work is progressing in a timely manner.

AWE provided an adequate demonstration of its on-site LC11 emergency arrangements in the annual Aldermaston Level 1 emergency exercise during September. Some strong performances were observed by ONR, in particular with regard to the Forward Control Vehicle team in terms of their coherent approach and the ability to constructively challenge senior exercise staff when injects were made that simulated poor decision making. Opportunities for improvement were also identified including the time taken to achieve a full site muster; however these did not detract from an overall adequate rating and AWE has since demonstrated improvements in mustering time.

ONR continues to engage with AWE's Structured Improvement Programme (SIP). The SIP should help AWE demonstrate that it is ready to move from enhanced to normal regulatory attention. AWE is now implementing work across four key work streams and ONR has seen some tangible improvements during the reporting period. ONR will continue to monitor delivery of this extensive programme of work.

### 3 NON-ROUTINE MATTERS

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.

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). AWE was also ordered to pay costs of £26,096.88 during a sentencing hearing at Reading Magistrates Court. The incident was a conventional health and safety matter and there was no radiological risk to workers or the public. AWE has shown commitment to make substantial improvements as regards electrical safety. ONR will monitor progress towards achieving the standards expected.

\* Section 2 (1) 'General duties of employers to their employees' of the Health and Safety at Work etc. Act (1974) reads: 'It shall be the duty of every employer to ensure, so far as is reasonably practicable, the health, safety and welfare at work of all his employees.'

During September AWE replied to the ONR Enforcement Letter concerning management of High Efficiency Particulate Air (HEPA) filters. This letter was sent jointly with the Environment Agency (EA). AWE provided a detailed response and initial outcomes from AWE's programme have been encouraging. However, AWE will need to deliver against all commitments in a timely manner and both ONR and EA will monitor progress against this during 2019.

AWE has provided an adequate response to an industry wide letter concerning Extended Loss of Grid events (ELOG). ONR was content that the arrangements currently in place across both AWE sites provide adequate resilience against ELOG events.

### 4 REGULATORY ACTIVITY

ONR inspectors 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.

During the period four Licence Instruments were issued:

LI 537 (Burghfield) - Agreement under LC20(1). Agreement to Implement the Revised MENSA Containment Design. Issued 23<sup>rd</sup> August.

LI 537 (Aldermaston) – Approval under LC35(4). Approval of alteration or amendment to AWE arrangements as required by LC35(2) for compliance with LC35 (Decommissioning). Issued 1<sup>st</sup> August.

LI 536 (Burghfield) - Approval under LC35(4). Approval of alteration or amendment to AWE arrangements as required by LC35(2) for compliance with LC35 (Decommissioning). Issued 1st August.

LI 538 (Aldermaston) – Agreement under LC22(1). Agreement to Install Monitoring Panels on the Over-Temperature Trip System of the Hot Isostatic Press – HIP (Main Production Facility). Issued 29<sup>th</sup> August.

## ONR News

October:

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.

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:

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.

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.

In conjunction with the Environment Agency, we announced the completion of our initial high level scrutiny of the UK HPR1000 reactor design.

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](mailto:contact@onr.gov.uk)

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".

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:

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).

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.

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](http://www.onr.org.uk)

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