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

Report for period 1 January to 31 March 2021

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. During this reporting period, Covid-19 social distancing restrictions continued to prevent ONR carrying out some inspections at the station. Remote inspections were carried out by ONR specialist inspectors whilst the ONR nominated site inspector carried out inspections on site, on the following dates:

- 19-21 January 2021
- 23-25 February 2021
- 23-25 March 2021

2. ONR's civil nuclear security inspector usually undertakes quarterly inspections at Hunterston B:

- No security inspections were performed on site during the period.

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), the Management of Health and Safety at Work Regulations 1999 (MHSWR99), the Radiation Emergency Preparedness and Public Information Regulations 2019 (REPPIR) and The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (CDG);
- 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 licence conditions (LCs) 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 and meetings at Hunterston B covered the following inspections:

- LC 12 – Duly authorised (DAPs) and other suitably qualified and experienced persons (SQEPs);
- The annual review of safety and security meeting.

6. LC 12 – On the 23-24 January, the nominated site inspector carried out an inspection against the implementation of the arrangements for DAPs and SQEPs. The inspection concentrated on the control of the assessment and appointment of DAPs which the inspection found was taken seriously at station. DAPs are subject to a rigorous appointment process and I observed an excellent standard of record keeping. Proactive action is also being taken to enhance the company standard for DAP training and

appointments by including specific requirements for defuelling operations. Some documentation editorial errors were identified and the attendance of external panel members on some DAP assessment panels should be strengthened. I was satisfied that station had a robust DAP appointment process and the inspection for LC 12 was rated Green, no formal action.

7. On 21 January the ONR Superintending and Safety and Security Site Inspectors attended the Annual Review of Safety and Security (AROS) meeting. The main purpose of the AROS meeting was to review the station's performance over the previous year and provide an opportunity for the station and regulators to openly discuss areas of good practice and the opportunities for improvement. ONR recognised the achievement in returning R3 and R4 to service in a safe and compliant manner, which was a result of the match fit programme and maintaining high plant standards to drive strong team performance. ONR noted the preparations for organisational change to support the defuelling and deconstruction phases and that this would continue to be a key area of focus for regulators in the coming year.

8. In addition to our routine compliance inspections, 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 fifteen 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 (three 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.

   - There were no system-based inspections during the reporting period.

9. 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.

   - There were no themed inspections during the reporting 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.

11. 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. 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 events reported during the period, had been adequately investigated and appropriate event recovery actions identified. Matters and events that met the ONR formal reporting criteria during the period included:

   - On 26 March 2021 a fault was discovered on the Reactor 4 Vessel Over Pressurisation Protection Equipment (VOPPE) system. This system helps to ensure continued cooling to the reactor, if a boiler tube failure were to occur, by automatically isolating the affected boiler. It was discovered that a modification, to repair a minor steam leak, was carried out on the 3rd December 2020. This repair required an electrical isolation which had the unintended consequence of isolating the electrical supply to the VOPPE. The

automatic operation of the VOPPE was therefore unavailable from 3 December 2020 until the Reactor 4 was shut down on 26 March 2021. Whilst the safety case requirements continued to be met, as the VOPPE remained available to be operated manually, the event did result in a breach of an operating rule. Operating rules define the safe operating envelope of the plant and should always be complied with. The licensee is carrying out an investigation into the causes of this event and ONR continues to monitor the investigation. No members of the public or workers on site were put at risk from this event.

4 REGULATORY ACTIVITY

12. 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 and letters to secure improvements to safety.

- On 24 March 2021, ONR gave its Agreement under LC30(2), to a further extension of the Reactor 4 operating period. This had the effect of extending the due date for the Reactor 4 statutory outage from 31 March 2021 to 7 January 2022. The project assessment report outlining the basis of ONR's decision has been published at ONR - Project Assessment Reports issued in 2021.

- No Enforcement Notices (Improvement or Prohibition notices) were issued during the period.

- No Enforcement Letters were issued during the period.

13. ONR granted its Consent, (under LC30), for Reactor 3 at Hunterston B to return to service on 27 August 2020 and Agreed, (under LC22), for Reactor 4 to return to service on 24 September 2020. Since then, both reactors have operated safely and compliantly.

- Reactor 3 was shut down as planned on 5 March 2021 for its graphite inspection outage (GIO). The GIO is ongoing and the findings will inform ONR's consideration of the safety case for a further six months period of power generation, before being shut down for a final time before 7 January 2022.

    - Subsequent to this reporting period, ONR provided its Agreement, on 13 April 2021, for Reactor 3 to return to service for its final period of operation, see ONR gives permission for Hunterston B Reactors to return to service - Office for Nuclear Regulation news.

- Reactor 4 was shut down as planned on 26 March 2021. Reactor 4 will also be subject to a GIO and the results will inform ONRs determination on whether a further, and final, six-month period of power generation may be agreed.

5 NEWS FROM ONR

14. Below are summaries of key activities over the last three months. Further detail is available on our website.

Covid-19 (Coronavirus) (ONR position)

15. We are continuing to obtain assurance that nuclear site licensees and other duty holders are adequately resourced to continue to carry out their activities safely and securely. We remain satisfied with industry's response at this time and there has been no significant change to duty holders' safety and security resilience. As COVID-19 restrictions change, our focus is on the preparedness for the weeks and months ahead and maintaining safe and secure operations. Our latest position can be found on our website.

Enforcement Action

16. In January, we agreed to extend two Improvement Notices served on the Atomic Weapons Establishment (AWE), recognising the good progress made so far. The Notices, which were served in June 2019, relate to the way the company controls change to organisational structure and resources which may affect safety.

17. In January, we served an Improvement Notice on Sellafield Ltd following a number of electrical safety incidents across the site. While we are satisfied that Sellafield Ltd is currently meeting the high standards expected with regards to nuclear safety, as a regulator we require sustained improvements in the area of electrical safety.

18. In February, we served an Improvement Notice on Morgan Sindall Construction and Infrastructure Ltd after workers came close to striking a live high voltage electric cable during excavation work at the Sellafield site. Nobody was harmed in the incident on 7 October 2020, and there was no impact on the public or the environment. However, the incident posed a serious risk to workers who were operating within one metre of the 11kV cable.

Regulatory Updates

19. In March, we published a response on our website to a BBC report relating to Sellafield. We were naturally concerned to hear the claims, particularly any suggestion that staff have been subjected to racist abuse of any kind. As a regulator, if we had any concerns or evidence that bullying and harassment was impacting safety at the site, we would take robust action to ensure this is addressed as a matter of urgency.

20. In March, we published an article about how we responded to the serious nuclear accident at the Fukushima Dai-ichi nuclear power plant in 2011 to mark the 10th anniversary.

21. In March, we gave EDF permission for Reactors 3 and 4 at Hinkley Point B power station to return to service for a limited period of operation. Permission for Reactor 3 will allow it to operate to a core utilisation of 17.55 terawatt days, while permission for Reactor 4 is to operate to a core utilisation of 17.3 terawatt days, which equates to two periods of approximately six months operation for each reactor.

Stakeholder Engagement

22. In February, we encouraged interested parties to take part in a Nuclear Energy Agency (NEA) survey about building and maintaining trust between nuclear safety regulators and the stakeholders they engage with.

23. In February, we provided an update about the leadership structural changes we initially announced in December 2020. Under existing contractual arrangements, current Chief Executive Adriènne Kelbie CBE was always expected to step down as her extended term of office comes to an end in January 2022. Mark Foy will step into the new combined role on 1 June 2021, when the new leadership structure will come into full effect.

24. In February, we announced that we had appointed Donald Urquhart to the newly created role of Executive Director of Operations, which will form part of our new leadership structure. As Executive Director of Operations, Donald will be responsible for leading our regulatory work.

25. In March, we announced that as part of our new leadership arrangements, we had appointed three new deputy chief nuclear inspectors (DCIs) to our regulatory and senior leadership teams: Jane Bowie, Paul Dicks and Steve Vinton, currently all senior superintending inspectors at ONR. All three new DCIs have a strong track record of delivering regulation across the organisation and will help us maintain a focus on our Strategy 2020-25.

6 CONTACTS

Office for Nuclear Regulation
Redgrave Court
Merton Road
Bootle
Merseyside
L20 7HS
website: www.onr.org.uk
email: contact@onr.gov.uk

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