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

Report for period 1 October to 31 December 2020

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 October 2020
- 10-12 November 2020
- 08-10 December 2020

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

- The scheduled security inspection in the period was postponed due to the Covid-19 restrictions.

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 7 – Incidents on the site;
- Conventional Health and Safety inspection;

6. LC 7 – On the 9-10 December, the nominated site inspector carried out an inspection against the arrangements for managing incidents on site. The inspection found that station has a robust organisational learning process that is being implemented adequately at present. The organisation learning dashboard metrics showed that the performance at station is consistent with the other EDF AGR stations in the fleet. A number of performance improvement department staff have left the organisation

recently and there is a plan of action in development to return the department to a more sustainable resource level. The inspection for LC 7 (incidents on the site) was rated Green, no formal action.

7. Conventional health and safety – On the 8-9 December, a specialist inspector carried out an inspection against the Work at Height Regulations 2005 (WAH) and the Provision and Use of Work Equipment Regulations 1998 (PUWER). The inspection sampled various work at height activities being carried out by contractors and observed good practice taking place in relation to planning and supervision, competence of staff and suitability of equipment. The station arrangements for controlling risks associated with the dangerous parts of machinery were inspected and generally good guarding standards on traditional engineering machinery was observed. Progress made by the station following a fleet wide concern raised by ONR around standards of fixed plant guarding was inspected. Whilst the station has successfully completed the risk assessment phase of this work and has installed temporary mitigation measures, an intervention was made to agree a more acceptable timeframe for delivery of the permanent guarding solutions. The inspection was therefore rated Green as no formal action was required from ONR.

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.

   - Back end of fuel route – On the 29 September to 19 October 2020, the site inspector, an end-of-generation project inspector and specialist inspectors from: fuel and core; mechanical engineering, and control & instrumentation carried out a remote inspection which examined the preparatory arrangements for removal of irradiated nuclear fuel from the reactor, its dispatch off-site and management of the resultant waste arising. The inspection covered the charge machine, the irradiated fuel dismantling facility, the fuel pond and flask area, the pond water treatment plant and the debris voids. The inspection found that for training, operating procedures, maintenance of plant and waste management, the arrangements and their implementation met regulatory expectations. It was noted some technical and environmental specifications did not adequately specify the limits and conditions specified in the safety case and some safety cases did not accurately reflect the plant configuration. We therefore assigned a rating of Amber (seek improvement) for LC23 (Operating rules) and issued an Enforcement letter to secure compliance. Station is making adequate progress against this requirement as part of its "Fuel Route Excellence" plan.

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:

- Damaged radioactive waste container – On 20th October, station dispatched a load of mixed metal radioactive waste to another site for processing. Upon receipt at the other site it was noted that one of the packages was damaged on one of the faces. The radioactive material was being transported in an 'Excepted package', suitable for low levels of radioactive waste, and the solid material meant that the risk of dispersal of radioactive material was low and did not present a risk to members of the public during transport. The event was thoroughly investigated by station and a number of improvements are being made to the checks performed during despatch of radioactive waste containers from station.

- Failure of the station Public Address (PA) system – On 20 December the station PA System developed a fault, which resulted in PA message transmissions from the Central Control Room not being distinguishable. The PA system was declared non-operational and appropriate response actions were carried out as per the station emergency arrangements handbook. Non-essential works were stopped and all persons on site were accounted for. Access to site was restricted whilst maintenance and fault investigation was carried out. The fault was due to a faulty module, was immediately repaired and the system was declared operable after two hours.

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.

- 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 safety and compliantly. On the 5 November 2020, ONR gave its Agreement under LC30(2), to an extension of the Reactor 4 operating period. This had the effect of extending the due date for the Reactor 4 statutory outage to 31 March 2021. The project assessment report outlining the basis of ONR's decision has been published at ONR - Project Assessment Reports issued in 2020.

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

- One Enforcement letter was issued during the period - See paragraph 8, fuel route system-based inspection.

5 NEWS FROM ONR

Covid-19 (Coronavirus)

13. We are continuing to obtain assurance that nuclear site licensees and other dutyholders are adequately resourced to continue to safely and securely carry out their activities.

14. We remain satisfied with industry's response at this time and there has been no significant change to dutyholders' safety and security resilience.

15. As COVID-19 restrictions change, our focus is on the preparedness for the weeks and months ahead and maintaining safe and secure operations.

16. All licensed sites are required to determine minimum staffing levels necessary to ensure safe and secure operations and contingency arrangements in the event that these levels are not met. This condition is specifically designed to ensure that industry can adequately manage and control activities that could impact on nuclear safety and security under all foreseeable circumstances, including pandemics.

17. ONR staff continue to work at home, primarily. We have considered our priorities, deferred non-critical activities, and are carrying out as much of our work as possible via videoconference, phone and email.

18. We continue to inspect, assess and permission remotely where necessary to protect staff, workers on site, and the public around sites.

Enforcement action

19. In December, we announced that The Atomic Weapons Establishment (AWE) had been fined £660,000 after pleading guilty to an offence under Section 3 of the Health and Safety at Work etc. Act (1974). AWE was also ordered to pay costs of £9,945.71 during a virtual hearing at High Wycombe Magistrates Court.

20. It followed an electrical incident on 20 June 2019 at the AWE Aldermaston site which resulted in a contractor narrowly avoiding injury when a flash over of electricity occurred from a 415V electrical source. The incident was a conventional health and safety matter and took place in a 'non-nuclear' building, so there was no radiological risk to workers or the public.

21. In October, we notified Sellafield Ltd that it would be prosecuted under Section 2 (1) of the Health and Safety at Work etc. Act (1974). The charge related to an incident on Friday, 24 April 2020 at the Sellafield site where an employee sustained injuries while working on high voltage electrical equipment. This incident was also a conventional health and safety matter and there was no radiological risk to workers or the public.

22. The hearing took place at Carlisle Magistrates Court on 18 December 2020, where Sellafield Ltd was fined £320,000 and ordered to pay costs of £12,079.07 after pleading guilty to the offence.

Regulatory updates

23. In October, we announced an Information Exchange Arrangement (IEA) with the Canadian Nuclear Safety Commission (CNSC). The IEA is a bilateral agreement between our two organisations which provides a framework for the sharing of information, experience, and good practice to enable both parties to learn from and train each other on technical regulatory issues. It also allows for more effective communication between the two regulators.

24. The agreement had already been used to develop a Memorandum of Cooperation (MoC) between ONR and the CNSC which allows the sharing of best practices and experience around reviewing advanced reactor and small modular reactor (SMR) technologies.

25. In November, our Chief Nuclear Inspector (CNI), Mark Foy, published his annual report detailing the performance of Great Britain's nuclear industry during 2019/20. The CNI reports he is satisfied that overall the nuclear industry has continued to meet the high standards of safety and security required to protect workers and the public.

26. In areas where dutyholders have fallen short of these standards, the CNI is satisfied that these facilities remain safe and that ONR has intervened in a proportionate manner to ensure plans are in place to improve performance.

27. In November, we also announced the appointment of a new member to the Chief Nuclear Inspector's Independent Advisory Panel (IAP). Chris McDonald has joined the panel, which was set up in in 2016 to provide independent advice on technically complex nuclear matters by engaging with industry experts to inform our regulatory strategies and approaches. Chris has a wealth of experience in industrial strategy and manufacturing research. He has a degree in Chemical Engineering and has been the CEO of the Materials Processing Institute since it was founded in 2014. Chris also has a proven record in the areas of innovation and low-carbon energy which will be of great benefit to ONR.

28. In December, we became an Affiliated Organisation member of the Society for Radiological Protection (SRP). We have actively participated and supported SRP for many decades. This affiliation formally recognises our involvement and contributions towards radiological protection and enhances the links between the two organisations.

29. In November, we played a leading role in the first ever virtual IRRS Mission. The virtual mission to Lithuania was conducted via the IAEA's International Regulatory Review Service and explored the feasibility of using modern communications tools for future missions. The mission was led by ONR's Technical Director Dr Anthony Hart and supported by Superintending Inspector Colin Tait. Other countries taking part in the mission included Canada, Pakistan, Finland and the Netherlands.

30. In December, we became the UK's nuclear safeguards regulator, in charge of the domestic safeguards regime and operating the UK State System of Accountancy for, and Control of, Nuclear Materials (SSAC). Following the end of the transition period as laid out in the Withdrawal Agreement, ONR assumed its responsibilities at 23.00 on Thursday 31 December 2020. This has been a major project for ONR, setting up a new team, new systems and new processes, led by Dr Mina Golshan.

31. Since being tasked by Government to establish a domestic safeguards regime after Brexit, we have developed a team of safeguards specialists, including inspectors and nuclear material accountants, and implemented a bespoke IT system, SIMRS (Safeguards Information Reporting and Management System).

32. Nuclear safeguards are measures to verify that countries comply with their international obligations not to use nuclear materials from their civil nuclear programmes to manufacture nuclear weapons. The safeguards work remains a key priority for the organisation and sits in our Civil Nuclear Security and Safeguards Division.

Corporate updates

33. In October, we announced that Chief Executive Adriènne Kelbie had been appointed a Commander of the Order of the British Empire (CBE) in the Queen's Birthday Honours List 2020 for services to the nuclear industry and to diversity and inclusion.

34. Adriènne said: "This honour is a tribute to the ONR team and all others who work tirelessly to create a more inclusive world and safe nuclear sector, as well as those on the long and sometimes arduous journey of leadership and self-development.

Inclusion goes hand in hand with safety, because diverse teams are essential to improve decision making – therefore it's a non-negotiable in nuclear. That's why, as Chief Executive of ONR, I've been personally committed to visibly drive the inclusion agenda and encourage others to do so too."

35. In December, we announced plans to align our leadership structure to other nuclear regulators around the world with a new combined post of Chief Nuclear Inspector/Chief Executive. Chief Nuclear Inspector Mark Foy will take up the new combined post, subject to detailed government approvals, supported by current Deputy Chief Executive, Sarah High.

36. A new senior regulatory role, Executive Director of Operations/Deputy Chief Inspector, will also be established. The exact timescales have yet to be confirmed, but the changes will come into effect later in 2021. Under existing contractual arrangements, current Chief Executive Adriènne Kelbie was always expected to step down as her extended term of office comes to an end in January 2022. The change reflects ONR's successful transition into a mature and high performing organisation since becoming an independent Public Corporation in 2014.

37. In December, we were delighted to announce that our Deputy Chief Inspector and Director of ONR's Sellafield, Decommissioning, Fuel and Waste Division, Dr Mina Golshan, had been awarded a Commander of the Order of the British Empire (CBE) in the New Year's Honours 2021, for 'services to nuclear regulation'. Mina said: "I am very grateful to have been awarded this honour. It reflects the work of many talented and dedicated professionals that I am lucky to work with. It also shows the significance of ONR's role in securing safe nuclear operations for the protection and benefit of the society."

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