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

Report for period 1 July - 30 September 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 to members for 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 where these reports are presented and will respond to any questions raised there. Any person wishing to inquire about matters covered by this report should contact ONR.

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1 Inspections

Dates of inspection

The ONR site inspector, supported by specialist inspectors, made inspections on the following dates during the report period 1 July to 30 September 2021:

1 and 28 - 29 July 2021,

10 - 12 August 2021

14 - 16 September 2021

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

The site security inspector carried out inspections on the 3 - 4 August 2021.

2 Routine Matters

Inspections

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 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;
- The Nuclear Safeguards (EU Exit) Regulations 2019 (NSR19).

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.

In this period, routine inspections of station covered the following:

- NSR19 – Nuclear Safeguards
- NISR2003 – Nuclear Security
- LC22 – Modification or experiment on existing plant
- Fire Scotland Act 2005
- LC10 - Training.

During the reporting period, ONR judged the arrangements made and implemented by the site in response to safety requirements to be satisfactory in the areas inspected. Where improvements have been identified, the licensee has made a commitment to address those issues, and ONR inspectors will closely monitor progress during future site inspections. Where necessary, ONR will take formal regulatory enforcement action to ensure that appropriate remedial measures are implemented to reasonably practicable timescales. Members of the public, who would like further information on ONR's inspection activities during the reporting period, can view site Intervention Reports at www.onr.org.uk/intervention-records on our website www.onr.org.uk. Should you have any queries regarding our inspection activities, please email contact@onr.gov.uk.

NSR19 – On the 28 and 29 July Safeguards Inspectors carried out an inspection at station as part of an assessment of compliance against the recently introduced Nuclear Safeguards (EU Exit) Regulations 2019. The inspectors were satisfied with the physical accountancy of nuclear material at the station. At the time of writing this report, assessment of the arrangements that demonstrate compliance with NSR19 is ongoing.

NISR2003 – On the 3 and 4 August the Site Security Inspector carried out an inspection against the programme of work to identify plant and equipment that needs to be protected during defuelling operations. This work provides an important foundation to the station security plan during defuelling. The inspection found that the station has been proactive in taking ownership of the plant identification work programme and has agreed the corresponding security arrangements. Some additional actions were identified during the inspection which the station has agreed to address. The inspection was therefore rated GREEN (no formal action).

LC 22 – On the 10 to 12 August the Nominated Site Inspector carried out an inspection of the configuration controls to be applied to plant that will be optimised or retired in support of defuelling activities. The inspection sought to understand the totality of the planned configuration changes to plant, the arrangements for controlling the assessment of cumulative effects on safety from separate modifications and the management of potential interface conflicts and unforeseen consequences that may arise. The station has recognised these risks and a number of enhancements to the modification process are being developed that include increased management

oversight and control and authorisation of the configuration changes. There were no findings that could significantly undermine nuclear safety and a rating of Green, (no formal action), was assigned to the inspection.

Fire Scotland Act 2005 – On the 1 September a specialist Fire Safety Inspector carried out an inspection against the requirements of the Fire Scotland Act. The management of fire safety standards during the Covid-19 pandemic were examined and station demonstrated a clear understanding the ongoing requirements for ensuring life fire safety across the site. The inspection did not identify any significant shortfalls in compliance and no matters were identified that required immediate regulatory attention. The fire safety arrangements and management procedures were compliant with the legislation, and therefore the inspection was rated Green (no formal action).

LC10 – On the 14 to 16 September the Nominated Site Inspector and End of Generation Project Inspector carried out an inspection of training requirements as part of the defuelling readiness inspection programme. The inspection found that the station plans to minimise the training requirements, by targeting defuelling training at existing qualified and experienced fuel route staff, to ensure a basic defuelling capability is achieved. A further and more developed training programme, post the start of defuelling, will increase the size of the team to perform defuelling at an enhanced rate. The programme is ongoing and the site inspector will confirm, through routine interactions, that adequate training for the Fuel Free Verification (FFV) function, Control Room staff and Fuel Route team is delivered. Adequate progress against the defuelling training programme was being made and there were no findings that could significantly undermine nuclear safety. Therefore, a rating of Green, no formal action, was assigned.

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.

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, across the EDF fleet and, in some cases across other licensees.

- Criticality safety - On 10 and 11 August 2021 specialist criticality inspectors carried out an inspection of the management of criticality safety at the station. The inspection formed part of a series of planned inspections across a number of UK nuclear licensed sites. The inspection confirmed signage on plant, including criticality notices, were easy to understand and subject to regular audit. Criticality safety training

practices were reviewed and found to be of a good standard. Safety documentation was sampled and there was a clear link between the operating rules derived in the criticality assessments and operating instructions on the certificates. Maintenance schedules and instructions were sampled for equipment used to handle the reactor fuel and pond boron level sampling. The documents were found to be well written and appropriately authorised. Some minor areas for improvement were identified and these are being tracked as observations. Overall, there were no significant areas of concern and a rating of GREEN, (no formal action), was assigned to the inspection.

Other work

The site inspector held periodic meetings with safety representatives and the EDF internal regulation team, to support their functions of representing employees and receiving information on matters affecting their health, safety and welfare at work and to provide internal challenge on nuclear safety matters.

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.

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 of particular note during the period were:

- On 18 August a transport package was received at station containing a small quantity of tritiated water. The package had been despatched from Public Health England (PHE) in error and in a configuration that did not meet the requirements of the transport regulations. No radioactive material was released during the transport and there was no risk to members of the public or workers. The radioactive material was returned to PHE in accord with the transport regulations and the event is being investigated by PHE.

- On 20 August 2021 a maintenance team was replacing fire detection equipment in the Reactor 3 gas circulator hall. The work required opening hatches which were nuclear safety fire barriers. On completion of the work one of the hatches was left open and remained undiscovered for 10 days. This contravened an operating rule; operating rules define the limits and conditions for the safe operation of the reactor plant. There was no risk to workers or members of the public and the fire detection system remained operational at all times. The event has been investigated and appropriate corrective actions have been introduced.

4 Regulatory Activity

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 take a range of enforcement actions, to include issuing an Enforcement Notice.

- No LIs, Enforcement Notices or Enforcement letters were issued during this period.

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

ONR previously reported that it had provided its Agreement, on 13 April 2021, for Reactor 3 and 4 to return to service for their final periods of operation, see ONR gives permission for Hunterston B Reactors to return to service - Office for Nuclear Regulation news.

- Reactor 3 has continued to operate safely and compliantly throughout the reporting period. The reactor is scheduled to cease generating in November 2021 at which point it will undergo a pre-defuelling outage prior to commencing defuelling in early 2022.

- Reactor 4 returned to service on the 5 June 2021 and has also operated safely and compliantly during the period. The reactor will be shut down on or before 7 January 2022, which represents the end of generation date for the Hunterston B power station. The reactor will commence its pre-defuelling outage during 2022.

5 News from ONR

For the latest news and updates from ONR visit the website and sign up for our ebulletin (http://www.onr.org.uk/ebulletin/index.htm).

Enforcement action

In July, we served an improvement notice on Devonport Royal Dockyard Ltd (DRDL) for shortfalls in its health and safety arrangements. The notice was served after DRDL failed to demonstrate consistent and effective arrangements to control and monitor the risks associated with working at height at its Devonport site. DRDL must comply with the requirements of the improvement notice by 31 March 2022.

In August, we announced that Morgan Sindall Infrastructure Ltd had complied with an improvement notice served in January 2021 after workers came close to striking a live high voltage electric cable during excavation work at the Sellafield site. Since this incident occurred, Morgan Sindall has put in place measures to prevent similar occurrences, and we are satisfied that they have complied with the requirements of the improvement notice.

COVID-19: ONR Position

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

We have measures in place to try and prevent asymptomatic ONR staff unwittingly conveying the virus onto a regulated site. We require all staff to take a circular 1 health (C1H) antigen test in advance of them visiting a site. In addition to the C1H test, we also require them to take a lateral flow test on the morning of their planned site visit. We are keeping our COVID-19 testing guidance under regular review, in-line with the changing national context and any further developments in industry approaches to testing arrangements.

Other

In July, our project to become the UK's domestic safeguards regulator was named the public sector's Project of the Year at the National Project Awards.

In September we invited stakeholders to submit comments on our updated reference papers for Coastal Flood Hazards and Meteorological Hazards for Nuclear Sites. Although supplementary to our normal governance process, we are doing this due to stakeholder interest in these topics and our commitment to being an open and transparent regulator.

The reference papers provide additional detail on the analysis of the external hazards for nuclear sites and have been produced by our Expert Panel on Natural Hazards, a group of academic and industry technical specialists working under contract to provide us with independent expert advice. You can find out more about how to get involved and comment on these papers on our website.

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Published 10/21

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