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

Report for period 1 January to 31 March 2017

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 for the Dungeness Site Stakeholder Group and are also available on the ONR website (http://www.onr.org.uk/llc/).

Site inspectors from ONR usually attend Dungeness Site Stakeholder Group meetings 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

1.1 Dates of inspection

ONR inspectors undertook inspections at Dungeness B Power Station, on the following dates during the quarter:

- 10-11 January
- 23-26 January
- 20-23 February
- 28 February and 1 March
- 20-24 March

2 ROUTINE MATTERS

2.1 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 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 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 Dungeness B covered the following:

- examination, maintenance, inspection and testing;
- management of operations including control and supervision;
- staff training, qualifications and experience;
- modifications to plant, equipment and safety cases;
- incidents on the site;
- radiological protection; and
- radioactive waste management.

Within this period ONR conducted one system based inspection on the carbon dioxide processing and blowdown system. The safety functions of this system include reactor gas management and gas chemistry control. ONR judged that the system adequately fulfilled the requirements of the safety case.

ONR undertook an inspection reviewing the licensee's arrangements for corrosion management and examined their implementation. The inspection found limited progress had been made to address the specific areas that ONR had identified during an earlier inspection visit in April 2016. However, a new investment delivery post has been created on site to ensure that the appropriate priority and resources are made available to address these issues. In recognition that ONR was not satisfied that Dungeness B had made sufficient progress to close the previous intervention actions, we wrote to the licensee seeking assurance that the

areas for improvement identified will be resolved in a timely manner. The licensee has made commitments to address these issues and is engaging with ONR to reach a satisfactory conclusion.

ONR undertook an inspection at Dungeness B in March as part of an ONR UK nuclear operator intervention on the control of radiation exposure. ONR found that in relation to control of radiation exposure, as required by Ionising Radiation Regulations 1999 Regulation 8, Dungeness B is performing at a similar standard to other reactors within the Fleet and that EDF is effectively leading the industry in the standards it adopts.

ONR also conducted routine licence compliance inspections relating to a number of nuclear licence conditions covering control and supervision of operations, event reporting and control and management of radioactive material. Overall ONR judged the arrangements made and implemented by the site in response to safety requirements to be adequate in the areas inspected. However, where improvements were considered necessary, the licensee made satisfactory commitments to address the issues. 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.

2.2 Other work

2.2.1 Periodic review of safety

In January 2017, the licensee submitted its third ten yearly periodic review of safety report to ONR for assessment. ONR's technical specialists have started to engage with the licensee during this quarter. This will enable ONR to form a view on whether the licensee has completed a systematic review of its safety cases to support future operations. ONR's assessment will conclude at the end of January 2018.

2.2.2 Emergency exercise demonstration - ANISE

The site's annual level 1 emergency exercise took place in March. The exercise, which involved participants from the emergency services as well as EDF NGL's own staff, was designed to demonstrate Dungeness B power station's capability to deal effectively with an emergency incident. The exercise was observed by a team of ONR inspectors who concluded that the exercise was a successful demonstration of the site's emergency arrangements.

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.

Matters and events of particular note during the period were:

<u>Reporting of INES 1 Event</u>

In January, the station notified ONR of a safety case anomaly relating to Superheater Safety Relief Valves. This anomaly was discovered during testing of a new actuator for a plant life extension modification. The station applied its safety case anomaly process and produced an interim justification for continued operations. ONR has reviewed the interim safety justification and supporting documentation. ONR agrees with the station's conclusion that the safety relief valves will continue to perform their primary safety function. The licensee has completed a review of the impacted instructions and no issues were identified. A justification for continued operations is being developed, it is not expected that new information will be produced so the conclusions are expected to remain the same.

<u>Operational alert following failure of switchboard</u>

In February, the station moved into operational alert due to an electrical switchboard failure caused by water ingress from a storm damaged roof membrane. This resulted in loss of supplies to two boiler stop valves and two boiler low-load feed valves. The unavailability of the boiler stop valves is covered within the station's technical specifications which require a number of action conditions to be completed within identified timescales. The station was able to extend the action condition and remain at power, whilst repairs were undertaken, in view of alternative lines of protection being available

This decision was made following consultation with nuclear safety and technical authority, following assessment and confirmation that the transformer could be repaired within the time available. The switchboard was repaired, the supplies re-instated within the revised timescales and the operational alert was exited shortly after. The licensee has raised a number of condition reports to consider learning from the operational decision making and plant condition. ONR will follow-up as part of routine business.

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 issue Enforcement Notices to secure improvements to safety.

No LIs or Enforcement Notices were issued during the period.

5 NEWS FROM ONR

New reactors update:

- ONR received a request from Government to begin the Generic Design Assessment process for the UK HPR1000 in January. The reactor is now in Step 1 of the GDA process.
- On 30 March, ONR issued Design Acceptance Confirmation for the AP1000®nuclear reactor, designed by Westinghouse. The regulators required 51 GDA issues to be resolved before confirming suitability of the design.
- ONR granted its first consent for the start of construction at Hinkley Point C licensed site. The consent covers the placement of the structural concrete for the first nuclear safety-related structure at the site.
- On 31 March, Horizon Nuclear Power submitted its application for a nuclear site licence to build and operate two UK Advanced Boiling Water Reactors at Wylfa Newydd on Anglesey.

Quarterly statement of civil incidents
ONR published its quarterly statement of civil incidents reporting on the period October-December 2016. There was one incident which met ministerial reportable criteria at Dounreay involving contamination of workers' clothing. There was no detectable intake of radioactive material by any of the people involved in the incident.

Insight into ONR's work as an independent regulator of the nuclear industry can be found in ONR's Regulation Matters. The online publication (http://www.onr.org.uk/regulation-matters.htm) reports on the key themes and developments in each of ONR's regulatory programmes and provides an update about the ongoing changes at ONR. http://www.onr.org.uk/index.htm. 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).

CONTACTS

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

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