



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

Report for period - 1 April to 30 June 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 to members of the Dungeness Site Stakeholder Group and are also available on the ONR website (<http://www.onr.org.uk/lrc/>).

Site inspectors from ONR usually attend Dungeness Site Stakeholder Group meetings where these reports are presented 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. ONR inspectors undertook inspections at Dungeness B Power Station, on the following dates during the quarter:

- 18 May to 30 June 2020
- 8 - 15 June 2020
- 26 June – 6 July 2020

All interventions in this period were conducted remotely as a result of the coronavirus pandemic.

2 ROUTINE MATTERS

2.1 Inspections

2. 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) and the Management of Health and Safety at Work Regulations 1999 (MHSWR99).

3. Due to the COVID-19 pandemic it was not possible to carry out physical site based inspections during this reporting period. The above inspections were undertaken remotely using Skype, video conferencing and the use of independent site based personnel where appropriate. The licensee is still required to make and implement adequate arrangements under the licence conditions attached to the licence in order to ensure legal compliance. Inspections seek to judge both the adequacy of these arrangements and their implementation.

Compliance Inspections

4. Because the coronavirus pandemic resulted in restrictions to travel during the reporting period, and because there were no urgent or essential regulatory matters that necessitated a site intervention, no compliance inspections were carried out during the period. Instead, the site inspector worked remotely to monitor the performance of the site by:

- Initiating increased dialogue with site management, the licensee's independent nuclear safety assurance function, and trade union safety representatives to develop a consistent picture of the measures put in place to manage the safety of both the workforce and the plant.
- Observing the meetings and working groups the licensee established to assess the coronavirus pandemic and manage the response, including the pandemic lead team meeting (which co-ordinated the site's response) and maintenance requirements review group (which managed the impact of potential or actual staff and supply chain shortfalls on safety-significant maintenance activities).
- Monitoring the minimum staffing levels required to deliver an adequate response in the event of an accident or emergency on the site.

5. Consequently, the site inspector considers that the site has managed its response to the pandemic during the period in a manner that, so far as is reasonably practicable, protected its own staff and ensured that there was no degradation in nuclear safety.

6. In this period, routine inspections at Dungeness B covered the following topics:
- Licence condition 6 – Documents records, authorities and certificates
 - Licence condition 7 – Incidents at the site
 - Licence condition 10 – Training
 - Conventional Health and Safety inspection :
 - Health and Safety at Work Etc Act 1974, Section 3
 - The Management of Health and Safety at Work Regulations 1999, Regulation 3(2)
 - The Management of Health and Safety at Work Regulations 1999, Regulation 5(1)

Licence Condition (LC) 6 and 7 compliance inspections

7. During this reporting period the nominated site inspector undertook remote compliance inspections of the station's arrangements for LC6 and LC 7; the inspection was observed by a French Nuclear Safety Authority (ASN) inspector seconded to ONR. The inspection consisted of several 40-minute interviews with members of the senior leadership team (SLT), the Corrective Action Programme (CAP) team and data archivists.
8. For the LC 7 compliance arrangements, the inspection gathered data on the effectiveness of the CAP/Organisational Learning process (the principal mechanism through which EDF Energy Nuclear Generation Limited (NGL) complies with the requirements of LC7) and examined the degree of SLT individuals' engagement with the CAP process. The inspection also involved the observing of the station's routine Corrective Action Review Board (CARB) meeting.
9. It was clear that there was consistency across those interviewed in regards to their level of commitment and enthusiasm for the organisational learning process. It was evident from the site inspector's discussions that many of the SLT had prepared well and provided good examples of where the process has clearly been successful or where it was believed the process has not been and the potential reasons for this. His observations of the station's CARB meeting noted it was a robust process with strong challenges to the items presented for CARB endorsement.
10. For the LC6 compliance arrangements, the inspection gathered information on progress in the rationalisation of the station's data store which currently has a regulatory issue associated with it. The site inspector's discussions with the team focused on their view of the station's current position and difficulties they have had in the rationalisation process. The site inspector was provided with examples of what has been achieved and the station's forward plan for this year.
11. Given the current circumstances regarding COVID-19, the site inspector stated that a physical examination of the data store and the sampling of records would be of benefit in the station demonstrating the robustness of its compliance arrangements. Once the current COVID -19 station/ONR arrangements permit, a physical inspection of the data store would be undertaken. Based on the sample inspected, the site inspector rated both the LC 7 and LC6 inspections as GREEN - no formal action

Licence condition 10 compliance inspection

12. This intervention was a reactive unplanned remote compliance inspection led by the Site Inspector and supported by a Human Factors Specialist Inspector. The inspection consisted of observing the delivery of training course material (delivered via Skype due to the station's COVID-19 pandemic arrangements) for the station's return to service training on its main steam line. A selection of station shift teams were observed; the inspectors

noted a positive approach by the trainers and participants given the unusual training situation. The inspectors also noted that the training was for awareness rather than specific knowledge transfer. The presentation of the training material was in the inspectors' opinion of suitable detail and of sufficient depth. The sessions were well received and feedback from the participants indicated a positive view of the sessions attended. This reactive remote LC10 compliance inspection was rated Green, no further regulatory intervention is currently required.

System Based Inspections (SBI)

13. In addition to our compliance inspections based on the conditions attached to the nuclear site licence, ONR also inspects 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 the key systems will be 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. ONR considers that this will provide additional assurance that operations on the Dungeness site are safe. Each of these system inspections considers the relevant licence conditions below:

- Licence condition 10: Training
- Licence condition 23: Operating rules
- Licence condition 24: Operating instructions
- Licence condition 27: Safety mechanisms
- Licence condition 28: Examination, inspection, maintenance and testing
- Licence condition 34: Leakage and escape of radioactive material and radioactive waste

14. No system based inspections were undertaken during this period.

2.2 Other work

Remote Conventional Health and Safety (CH&S) Inspection

15. The purpose of this intervention was to provide regulatory confidence in the arrangements for the management of contractors in relation to conventional health and safety work at Dungeness B power station.

16. The site was issued with an ONR enforcement letter (ONR-EL-19-020) on the 8 January 2020 following observation of a number of poor health and safety compliance matters through the previous months related to the control of contractors. The station director provided a response to that letter on 30th January 2020. This inspection explored some of the actions detailed in that response as well as the suitability of the wider site arrangements for the control of contractors.

17. The inspection was spread over a two week period covering specific phases which consisted of;

- Documentation gathering and arranging remote interviews of key station staff and contract partners.
- Site validation work was conducted on ONR's behalf via a member of the EDF industrial safety branch team under ONR guidance.
- Feedback to the station.

18. The CH&S inspection identified three areas where Dungeness B was judged to be below standard; in light of these findings the inspection was rated Amber. Three actions have

been raised and added to a current ONR regulatory issue relating to the above Enforcement Letter.

19. During the inspection ONR also noted positive areas in the station's strong commitment to good conventional health and safety standards and culture. Contractors reported that they were encouraged to raise health and safety concerns and it was felt that Dungeness B were positive in their response to any matters identified.
20. Dungeness B reported to ONR on 18 May 2020 that two routine inspections, associated with Reactor 21 Pre-stressed Concrete Pressure Vessel (PCPV) penetrations, had not been completed within the intervals specified in the associated Written Scheme of Examination under the Pressure Systems Safety Regulations 2000 (PSSR). There was no significant nuclear safety impact as Reactor 21 was shutdown at the time and had not operated at power beyond the due date. However, given that this is a breach of PSSR regulations and these penetrations are nuclear safety significant items of plant, an enforcement letter (DNB71334) was issued to the station to ensure the contraventions were remedied.

3 NON-ROUTINE MATTERS

21. 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.
22. There were no significant incidents of note during this reporting period.

Return to Service Update

23. Both reactors are safely shutdown due to the ongoing repair of widespread steel corrosion across the station, cracking found in the main steam lines of the boilers and potential degradation issues associated with boiler tubes. The reactors will only be permitted to return to service when ONR is satisfied that the issues identified have been resolved.
24. The corrosion event recovery has progressed to the point where inspections required to support return to service are now complete, the necessary defect remediation required for return to service has been established and is in progress. Risk-informed defect rectification work is also planned for a number of years after the return to service of the reactors.
25. Boiler steam main line inspections are complete and some repairs have been carried out. A number of plant enhancements are in progress. The safety case for return to service is complete and is subject to assessment and permissioning by ONR.
26. Potential issues related to a previously known in-service degradation mechanism that could affect specific sections of the boilers are being addressed by the station. Any justification for continued operation will be supported by a robust safety justification, which ONR will assess prior to return to service of either reactor.
27. An ONR planned plant visit will take place in early July to cover the newly discovered corrosion on the Backup Cooling Water (BUCW) pipeline, the automated Boiler Emergency Depressurisation (ABED) valves and the station's existing nitrogen plant. The findings of this plant visit will be reported in the next quarterly report.

4 REGULATORY ACTIVITY

28. 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.
29. ONR issued an enforcement letter on the 8 January 2020 which was in response to a number of conventional health and safety incidents that occurred at the station involving contractors between October and November 2019. During this period, the station responded to ONR's letter and has provided an action plan to address the findings. The site inspector is content with the station's plan and will monitor the implementation of it.

Table 1
Licence Instruments and Enforcement Notices Issued by ONR during this period

Date	Type	Ref No	Description
29/4/20	Agreement	LI561 DNB71332N 2020/101646	Justification for increasing the fuel storage pond decay heat limit from 160kW to 275kW
18/6/20	Enforcement letter	DNB71334 2020/185660	Dungeness B PSSR Compliance Issue

5 NEWS FROM ONR

Below are summaries of key activities over the last three months. Further detail is available on [our website](#).

Covid – 19

ONR is continuing to protect society by securing safe nuclear operations during the Covid-19 (coronavirus) pandemic. Our staff continue to work from home, in line with government advice, with a limited number of our inspectors, as key workers, travelling to site as necessary to conduct urgent and essential regulatory inspections. ONR's latest position can be found on our [website](#).

Enforcement Action

ONR served an Improvement Notice on EDF Energy NGL for contravention of the Pressure Systems Safety Regulations (2000) at Heysham 1 Power Station. The notice was served after shortfalls were discovered in the examination and inspection of the Reactor 1 pressure vessel at the Lancashire plant. EDF Energy must comply with the Improvement Notice and complete the eleven overdue examinations by 18 December, 2020.

ONR has granted an extension to an Enforcement Notice served on Urenco UK Ltd, recognising the good progress made so far. The notice was issued in late December 2019, following a fire safety inspection at the Capenhurst Works in Cheshire, which

revealed shortfalls in the fire alarm and detection systems at one of the site's facilities. Urenco UK Ltd must comply with the requirements of the extended notice by 30 September, 2020

Regulatory Updates.

ONR received an application for a nuclear site licence from NNB Generation Company (SZC) Limited, to construct and operate two EPR™ reactors, at its proposed development in Sizewell, Suffolk. We will now assess the application, partly informed by our previous assessment of the EPR™ at Hinkley Point C – including using the relevant lessons from that assessment, while focusing on aspects specifically relevant to Sizewell C.

Whilst we are satisfied that the application is sufficiently complete to proceed to assessment stage, there is still a lot of work to do – and we do not expect to reach a decision, until at least the end of 2021.

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