



Office for Nuclear Regulation (ONR) Site Report for Sizewell B Power Station

Report for period 1 April 2018 – 30 June 2018

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

Site inspectors from ONR usually attend Sizewell Site Stakeholder Group 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

1.1 Dates of inspection

ONR inspectors undertook interventions at Sizewell B Power Station on the following dates during the reporting period:

- 16 – 20 April 2018
- 30 April – 3 May 2018
- 14 – 15 May 2018
- 12 – 15 June 2018
- 26 – 28 June 2018

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 2017 (IRR17) and the Management of Health and Safety at Work Regulations 1999 (MHSWR99).

The inspections entail monitoring the licensee's (EDF Energy Nuclear Generation Ltd (NGL)) 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 covered the following topics:

- Working at Height
- Chemistry Control of the reactor coolant and main steam systems
- Control and supervision
- Management of External Hazards
- Organisational Learning
- Risk informed decision making during mode change
- Management of external tank, vessel and pipework corrosion

In general, 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, and 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.

In respect to working at height, ONR inspectors examined Sizewell B's response to learning identified following an incident whereby a person fell through a fragile surface at Hinkley Point B power station in April 2017. We found that application of NGL's organisation learning process has resulted in a number of improvements including enhancement of Sizewell B's roof register and the installation of engineered protection around a number of fragile roof surfaces. Overall, we were satisfied with NGL's response.

During the period, ONR's specialists conducted an inspection to evaluate Sizewell B's progress in implementing revised corrosion management arrangements. Inspectors sampled the application of these arrangements to a number of external tanks, vessels and pipework. We were satisfied with the quality of corrosion management assessments undertaken via this programme and overall progress of implementation. We requested a programme from NGL to confirm timescales for completion of remaining work under the station's corrosion management programme, including remedial work being undertaken on the station's condensate storage tanks and reserve ultimate heat sink. We intend to monitor NGL's progress against this programme via an entry on ONR's issue database.

2.1.1 System Based Inspections

In addition to our program of site licence compliance inspections, ONR also undertakes system based inspections (SBI) which are focused on the station's critical safety systems and structures and are derived from the licensee's safety cases. During the period, ONR performed system based inspections of the following systems:

- SBI02 – Auxiliary feed system and condensate storage tanks
- SBI11 – High head safety injection pumps and refuelling water storage tanks

The safety function of the auxiliary feed system and condensate storage tanks are to provide diverse and redundant post trip feed to the station's steam generators, which provide a heat sink for the reactor coolant system. The system is automatically initiated by the station's protection systems or by duly authorised personnel within the main control room in the event of certain faults. The objective of the SBI was to evaluate the implementation of safety case claims on this equipment via inspections performed under the following site licence conditions:

- 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

After considering the evidence examined during the inspection we judged that the reactor auxiliary feed system and condensate storage tanks met the requirements of the associated safety case. We awarded **Green** inspection ratings against the above licence conditions: LC10, LC23, LC24, LC27 and LC28.

SBI 11 examined the implementation of safety case claims on the high head safety injection pumps and refuelling water storage tanks. The high head safety injection pumps form part of Sizewell B's Emergency Cooling System (ECS) provided to inject water from the refuelling water storage tank (or containment sumps) into the reactor coolant system in the event of loss of coolant accidents or following steam line break faults. Based on our sample inspection, we judged that the licensee has developed and implemented an appropriate preventative maintenance regime for the high head safety injection system. We walked down a sample of the equipment and found it to be in an acceptable condition. We judged that **Green** inspection ratings were appropriate for LC10, LC23, LC24, LC27, LC28 and LC34.

2.2 Other work

2.2.1 Emergency Exercise AKITA

Emergency exercise AKITA took place in June, designed to demonstrate the station's capability to deal effectively emergency incident occurring on the site. The exercise scenario challenged NGL's staff and armed officers from the Civil Nuclear Constabulary to respond to a series of simulated counter terrorism threats and safety related plant faults. 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

The ONR site inspector undertook a reactive inspection following an incident reported by NGL via ONR's INF1 notification system. The incident involved the discovery that some level instrumentation on the station's refuelling water storage tank had been adversely affected during cold weather in early March. The site inspector concluded that the incident was of low significance and was satisfied that NGL had conducted an appropriately thorough and systematic internal investigation to identify learning from the incident to prevent reoccurrence. One minor area for improvement was noted in relation to provision of written instructions setting out the expected response to forecast low temperatures. NGL has committed to address this observation which will be monitored via an entry on the ONR issues database.

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.

5 NEWS FROM ONR

5.1 Stakeholder Engagement

On 9 May we held our ONR annual Industry Conference, with the theme - 'Public Safety – everyone's responsibility.' Delegates from more than 45 different organisations attended, and we were delighted that Richard Harrington, Parliamentary under Secretary of State, Minister for Business and Industry, was able to join us to deliver a keynote speech. The conference provided us with an opportunity to engage directly with senior representatives from across industry and government on a number of topical and strategic issues affecting the sector.

As part of our continued stakeholder engagement work, we welcomed finance professionals from a number of nuclear site licensees and dutyholders to seminars in London and Birmingham in June. Led by our Finance Director, Sarah High, we hosted the seminars to provide the industry with a better understanding of our charging methodology, the principles we apply, and how the charging process works. To accompany the seminars we have also published a new booklet – [How we charge for Nuclear Regulation](#) – which is available on our [website](#).

The next ONR/NGO engagement forum will take place on 11 October in London. This is a forum to discuss strategic, cross-cutting regulatory matters. Site specific matters are normally addressed via Site Stakeholder Groups. We are always keen to engage with a range of stakeholders and groups on nuclear safety and security issues, so if you do represent a nuclear-interest Non-Governmental Organisation, and are not already involved through our forum or via a Site Stakeholder Group, then please get in touch with the ONR Communications team for further details, via contact@onr.gov.uk

5.2 Regulatory News

A delegation from ONR, led by Chief Nuclear Inspector Mark Foy, supported the UK's contribution to the 6th Joint Convention review meeting in Vienna. Bringing together 78 countries from around the world, the Joint Convention on the Safety of Spent Fuel Management and the Safety of Radioactive Waste Management is the world's leading international forum for ensuring society and the environment are protected from hazards arising from spent fuel and radioactive waste. Further details can be found on the [IAEA website](#).

In August Mark Foy, will host a webinar on the outcome of the UK report to the joint convention. Further details on how to sign up for the webinar will be advertised on our website and social media channels over the coming weeks.

We have notified Sellafield Ltd of our intention to prosecute the company for offences under Section 2 (1) of the Health and Safety at Work etc. Act (1974). The charge relates to an incident on 5 February, 2017, at a facility which handles special nuclear materials, which resulted in personal contamination to a Sellafield Ltd employee. The decision to prosecute follows an ONR investigation into the incident.

In May we awarded the contract for delivery of the UK Nuclear Safeguards Information Management and Reporting System (SIMRS) to Axis 12 Ltd. The IT system is necessary for us to establish a domestic safeguards regime after the UK's withdrawal from the Euratom Treaty. The government has now launched the consultation on Nuclear Safeguards Regulation, further details can be found on our [website](#).

5.3 Corporate News

In May we published a self-assessment exercise to update on how well our activity currently aligns with the Regulators' Code, which came into effect in April 2014 to provide a framework for how regulators should engage with those they regulate. The full report is available on our [website](#).

In June we published our Annual Report and Accounts highlighting the extent of our regulatory activities. During the 17/18 year over 1,000 inspections were carried out across 36 licensed sites and transport dutyholders, ensuring the required standards of safety and security were met to protect the public and workers. The full report is available on our [website](#).

In July we published our second [gender pay report](#). The organisation-wide results show that ONR has a mean gender pay gap of 35.2%, which is wider than last year, although it is broadly similar to the rest of the UK nuclear industry and anticipated given our workforce profile, and that of the industries from which we have historically recruited. ONR is committed to addressing this issue and continues to focus on improving diversity and inclusion.

Our Chief Executive, Adrienne Kelbie, has agreed a three-year contract extension, taking her term of employment to January 2022.

6 CONTACTS

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