

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

Report for period 1 January - 31 March 2016

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 Sizewell sites stakeholder group and are available on the ONR website (<http://www.onr.org.uk/lrc/>).

Site inspectors from ONR usually attend Sizewell sites 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

The ONR nominated site inspector made inspections on the following dates during the quarter:

12 – 13 January
9 – 11 February
15 – 17 March

ONR specialist inspectors carried out inspection visits on the following dates during the quarter:

12 January
2 – 4 February
9 – 10 February
11 February
15 – 16 March

2 ROUTINE MATTERS

2.1 Inspections at Sizewell B

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 Regulatory Reform (Fire Safety) Order 2005
- the Nuclear Industries Security Regulations 2003

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 majority of 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, the following routine licence condition compliance inspections were undertaken:

Licence Condition 32: Accumulation of radioactive waste
Licence Condition 34: Leakage and escape of radioactive material and radioactive waste
Licence Condition 36: Organisational capability

Licence Condition (LC) 32 requires the licensee to make and implement adequate arrangements for:

- minimising the rate of production and total quantity of radioactive waste accumulated on the site at any time, so far as is reasonably practicable;
- ensuring that adequate records of accumulated waste are maintained.

The ONR nuclear liabilities specialist inspector and Environment Agency site inspector undertook an inspection focussed on the licensee's arrangements for the management of radioactive waste. This included inspecting the training provided to waste management operatives and the progress to date to minimise the inventory of radioactive waste on site. This also considered the plans for managing future waste generated as part of the planned refuelling outage RO14. Overall, the inspectors considered that the site is proactively managing its accumulated Low Level Waste (LLW) on site, segregating waste and utilising available LLW disposal routes.

LC 34 requires the licensee to ensure, so far as is reasonably practicable, that radioactive material and radioactive waste on the site is at all times adequately controlled or contained so that it cannot leak or otherwise escape from such control or containment. The ONR and Environment Agency site inspectors considered that the leak schedule was being managed, with the majority of leaks on the schedule being addressed as part of the outage commencing in April 2016.

LC 36 requires the licensee to provide and maintain adequate financial and human resources to ensure the safe operation of the licensed site. This intervention was supported by an ONR organisational capability specialist inspector and looked at a number of areas relating to the organisational capability including the station nuclear baseline, periodic safety review 2 (PSR2) observations, organisational governance arrangements, management of change process, outage organisation and financial resources.

System Based Inspections

In addition to ONR's programme of site licence compliance inspections, we also inspect operating reactors based on safety related systems. Each site has a safety case, which identifies the important aspects of operation and management required for maintaining safety.

For Sizewell B, the key systems important to nuclear safety will be inspected against the requirements of the safety case. We plan to inspect all the safety significant systems over a five-year period. ONR considers that this will provide additional assurance that operations on the site are safe. Each of these 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

During the reporting period, the following systems were inspected:

- Residual heat removal and reactor building spray systems
- Chemical volume control system and emergency charging system

Residual heat removal and reactor building spray systems

The principal role of the reactor building spray system (RBSS) is to spray water into the reactor building atmosphere following a Loss of Coolant Accident (LOCA). This removes fission products and mixes the reactor building atmosphere and also reduces the temperature and pressure within the reactor building. The RBSS includes means of adjusting the pH of the reactor coolant in the reactor building recirculation sumps to ensure material compatibility for long-term post-accident operation and retention of iodine in the spray water. The RBSS pumps also provide an alternative heat removal path, achieved by realignment to the RHRS pipework, when the RHRS pumps are unavailable. The RHRS also acts as backup to the RBSS during a LOCA or main steam line break accident.

ONR's judged that overall the RHRS and RBSS met the requirements of the safety case and are being adequately managed and maintained.

Chemical volume control system emergency charging system

The chemical and volume control system (CVCS) performs a number nuclear safety functions during reactor start-up, normal operation and shutdown which include reactor coolant pump (RCP) seal water injection, RCS make-up and boration.

ONR considered that both the CVCS and ECS meet the requirements of the safety case. The arrangements in place are suitable overall and are being implemented in a satisfactory manner.

Dry Fuel Store (DFS) Project

In this period, the following licence condition compliance inspections were undertaken against the Dry Fuel Store (DFS) project:

Licence condition 10: Training

Licence condition 12: Duly authorised and other suitably qualified and experienced persons

Licence condition 21: Commissioning

Licence condition 24: Operating instructions

Licence condition 26: Control and supervision of operations

ONR judged the project to be working within the appropriate testing and commissioning arrangements and did not identify any significant shortfalls. The inspection identified a number of areas where further supporting evidence, clarification and progress was required prior to the release of future ONR hold-points.

Further details of ONR's intervention records can be found at <http://www.onr.org.uk/intervention-records>.

2.2 Other work

None identified during this period.

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.

From the reporting sampled during this period the ONR inspector is satisfied that incidents reported on the site are being adequately recorded, investigated and reported by the licensee. No other matters of concern have been raised that require further regulatory action at this time.

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 such activity was undertaken during this period.

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

5 NEWS FROM ONR

Chief Nuclear Inspector appointment

ONR announced the appointment of Dr Richard Savage as its new Chief Nuclear Inspector (CNI) to lead our regulatory activity. Richard is a Chartered Engineer with an extensive background in nuclear safety and regulation. He served as Head of the Defence Nuclear Safety Regulator, Ministry of Defence, before being appointed to ONR as a Deputy Chief Nuclear Inspector in 2013. He was Acting CNI since Dr Andy Hall's retirement in November 2015.

ONR Strategic Plan 2016-2020

In March, ONR published its Strategic Plan covering 2016-2020. The plan sets out the factors that will influence our work and the assumptions we have made about regulating the nuclear sector in the next few years, as well as how we deliver the commitments we have made to the public, ministers and government, licensees, dutyholders and our staff. The plan was laid in Parliament on 22 March and can be viewed on the ONR website.

Regulation Matters magazine

Insight into ONR's work as an independent regulator of the nuclear industry can be found in Regulation Matters. This quarterly 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 on-going changes at ONR. For the latest news and updates from ONR, you can also visit the website and sign up for our e-bulletin: <http://www.onr.org.uk/index.htm>.

6 CONTACTS

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