



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

Report for period 1 July - 30 September 2014

## 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/llc/>).

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 site inspector made inspections on the following dates during the quarter:

15 – 17 July  
26 – 28 August  
8 – 11 September

ONR fire safety inspectors, the conventional health and safety inspector, project and specialist inspectors made inspections on the following dates during the quarter:

6 August  
16 – 18 August

The ONR CEO and Head of Corporate Services visited the station on the following dates during the quarter:

14 August

## 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 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 19: Construction or installation of new plant

Licence condition 21: Commissioning

The implementation of these licence condition arrangements against the Dry Fuel Store (DFS) project was carried out. EDF Energy is in the process of constructing a DFS facility on the Sizewell B licensed site. Overall, the inspection found the licence condition arrangements to be adequately implemented for the management of this project. However, areas for improvements were identified, the licensee has given a commitment to address issues raised

and the ONR project inspector will monitor progress during future inspections. Where necessary, ONR will take regulatory enforcement action, to ensure that appropriate remedial measures are implemented to reasonably practicable timescales.

In addition to our program of site licence compliance inspections, we are now inspecting 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:

- High Head Safety Injection and Borated Refueling Water Storage Systems
- Containment Access and Leak Rate Test Systems
- Main Steam and Steam Generator Blowdown Systems

The High Head Safety Injection System (HHSIS) and Borated Refueling Water Storage System (BRWSS) form part of the Emergency Core Cooling System (ECCS), with the primary safety role of providing reactor coolant injection on Loss of Coolant Accident (LOCA) faults.

The containment access system comprises of an equipment access hatch and two functionally identical, independent personnel access airlocks to control entry into the primary containment. The leak rate test systems ensure that leakage from the primary containment (including the liner, all penetrations and containment isolation valves) remains within the required design criteria.

The main steam safety related duties are to provide reactor heat removal and isolation during normal cool down and post fault conditions. The steam generator (SG) blowdown system provides control of SG water chemistry and isolation in reactor trip conditions. Process radiation monitoring of the main steam and SG blowdown is also installed to detect activity within these systems.

These systems were found to meet the requirements of the safety case and are being adequately maintained and operated. No significant regulatory issues were identified by ONR against these systems. A number of observations of low nuclear safety significance were made during the inspections. These have been captured for corrective action under the Licensee's arrangements will be monitored for progress by ONR on a routine basis.

### **Regulatory Reform (Fire Safety) Order 2005**

ONR Fire Safety Inspectors visited the site to confirm that the general fire safety provisions on site are adequate and to confirm that compliance with the requirements of the Regulatory Reform (Fire Safety) Order 2005 is being achieved. The inspection found the fire safety measures to be adequate overall. A number of issues were raised as part of this intervention, which will be followed by ONR until confirmed as closed out by the Licensee.

## **Conventional Health and Safety Inspection**

The ONR Conventional Health and Safety Inspector visited the site during this period. Discussions were had with the industrial safety team, safety reps, outage project team and independent nuclear oversight team with much of the topic being the planning for the forthcoming refuelling outage in October. No significant issues were raised by ONR during the inspection.

### **2.2 Other work**

During this period, other work was conducted in relation to the site as outlined below:

The ONR site inspector and Emergency Preparedness and Response (EP&R) inspector attended a public Sizewell Site Stakeholder Group (SSG) sub meeting for off-site emergency planning. ONR presented an overview of its determination of the revised Sizewell site emergency planning area and answered questions from the floor. The ONR site inspector and nuclear security inspector attended the annual exercise review meeting. The ONR site inspector and outage project inspector attended a number of meetings to discuss the plans for the forthcoming reactor outage period. The ONR site inspector met with the site trade union safety representatives to discuss matters of general health and safety. The ONR chief Executive Officer and Head of Corporate Services visited the station as part of their regular visit to the GB nuclear sites.

### **Japanese Earthquake Response**

In response to the lessons learned from the earthquake in Japan, EDF has undertaken a programme of improvements to enhance the stations capability against severe accidents scenarios. During this period, ONR observed an exercise to demonstrate elements of this enhanced capability, including the deployment of new equipment and activation of facilities. Overall, ONR judged the exercise to be successful. As is usual and indeed the purpose of such exercises, a number of opportunities for learning and improvement were identified and feedback for action was provided.

## **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.

### **Emergency Charging (EC) Pump A Operability Incident**

As recorded in the report for Quarter 1 2014, a fault was identified on an Emergency Charging (EC) pump in March 2014. During this period the ONR site inspector followed up the details of this incident with the Licensee. The inspector considered the findings of the significant adverse condition investigation report produced by the Licensee and also discussed details of the incident with the Deputy Operations Manager. The ONR site inspector is satisfied that the Licensee has adequately identified the root and contributing causes of the EC pump incident and took appropriate immediate action to secure safety. The ONR site inspector is also satisfied that the Licensee's proposed corrective action plan (and associated completion dates), are appropriate to secure compliance and avoid a recurrence of the particular circumstances of this event. In line with ONR operational procedures and enforcement guidance ONR judge that no further investigation or enforcement action is justified in relation to this incident.

#### 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.

Table 1

Licence Instruments and Enforcement Notices Issued by ONR during this period

Date	Type	Ref No	Description
-	-	-	None

Reports detailing the above regulatory decisions can be found on the ONR website at [www.hse.gov.uk/nuclear/pars](http://www.hse.gov.uk/nuclear/pars).

#### 5 NEWS FROM ONR

Insight into ONR's work as an independent regulator of the nuclear industry can be found in ONR's Quarterly News. The online publication (<http://www.onr.org.uk/onr-quarterly-report.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>).

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