



# Office for Nuclear Regulation (ONR) Quarterly Site Report for Wylfa Power Station

Report for period 1 April – 30 June 2015

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

Site inspectors from ONR usually attend Wylfa 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

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

7, 8, 9, 10 April 2015

11, 12, 13, 14, 15 May 2015

15, 16, 17, 18, 19 June 2015

The Regulatory Liaison Meeting was attended by the ONR site inspector and ONR Leadership and Management for Safety inspectors on the 16 April 2015

The ONR site Inspector attended the 1<sup>st</sup> meeting of the 2015/16 Wylfa Site Health, Environment and Safety Committee (SHESAC) meeting on the 20 May 2015.

The ONR Site Inspector attended the Wylfa Site Stakeholder Group (SSG) on the 21 May 2015.

An ONR Radioactive Waste Specialist Inspector attended site on 20 May 2015 to review current progress of the Magnox Ltd Project for retrieval of fuel corrosion debris from Dry Store Cell 4 (DSC4)

An ONR Control and Instrumentation specialist inspector attended site on 9 June 2015 to undertake a reactive inspection of an unrevealed fault with the Trailing Lead Single Element (TLSE) thermocouples on Reactor 1.

## 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 (site/station) covered the following:

examination, maintenance, inspection and testing;  
management of operations including control and supervision;  
staff training, qualifications and experience;  
incidents on the site;  
radioactive waste management;  
quality assurance and records

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.

### Safety System Inspections

ONR includes inspections of the systems that contribute to the safety of operating reactors in addition to compliance inspections based on the conditions attached to the nuclear site licence. The nuclear site licence requires that all licensed sites must have a safety case in respect of any operation which may affect safety. For the Magnox reactor that remains in operation at Wylfa power station, 30 systems have been identified to provide the basis for inspecting safety systems to ensure they meet the claims made on them by the safety case. The intention is to inspect systematically over a five year cycle all of the safety related systems identified for the site. ONR considers that this approach will provide the necessary level of assurance that the requirements of the safety case are met and the site is being operated safely.

The safety systems inspected during this quarter were the Gas Circulator systems. On the basis of the inspections, the systems were deemed to be operated and maintained in accordance with the requirements of the station safety case. Where areas for improvement were identified, station undertook to take appropriate action to address them. ONR will monitor progress to complete the agreed work.

Further details of ONR's system inspections at Wylfa power station and other nuclear licensed sites can be found at: [www.hse.gov.uk/nuclear/interventionreports/index.htm](http://www.hse.gov.uk/nuclear/interventionreports/index.htm)

### Progress Meeting on ILW Retrieval from Dry Store Cell 4 (DSC4)

This meeting was held, as part of on-going engagement, to discuss progress on the dry store cell DSC4 ILW retrieval project. The main topic considered was the outcome of Magnox Ltd's assessment of the magnitude of the hazard remaining within the affected skip tubes. The final sanction for provision of the required funding and commencement of the project, is still being considered by Magnox Ltd directors. If successful, the retrieval work is planned to begin around the end of 2016, and should take around 1 year to remove all 37 tubes.

## **2.2 Other work**

### Site Safety Representatives

The site inspector held a periodic meeting with safety representatives, to support their function of representing employees and receiving information on matters affecting their health, safety and welfare at work.

### Regulatory Liaison Meeting

ONR inspectors attended a meeting to allow representatives of authorities exercising regulatory powers on the Wylfa site to discuss matters of mutual interest with station counterparts. The meeting was attended by representatives from the station, Magnox Limited, Natural Resources Wales, Environment Agency, ONR-security and ONR-safety inspectors. The meeting provided a useful opportunity for regulatory authorities to meet site representatives and identify any areas where interaction might be improved. ONR will continue to monitor station's safety performance, and liaise with other regulatory organisations as necessary.

### Site Stakeholder Group (SSG) Meeting

The Wylfa power station SSG meeting was attended during the period by the ONR nominated safety inspector. The meeting provided an opportunity for Wylfa stakeholders to meet and discuss matters related to the station, and request a response from ONR on regulation of the site, as necessary.

### 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:

#### Reactor 2 – Reactor Ancillary Cooling Water (RACW) Leak

During the handover between the evening and night shifts of 13-4-15 excessive RACW usage was noted on Reactor 2 (R2). R2 has been shutdown for approximately 3 years and hence cooling duties on the RACW plant are minimal. The leakage was investigated and it was discovered that a vent valve on the R2 BCD cooler had been left open and that an estimated 20 m<sup>3</sup> of RACW had passed to drain. During this first line investigation, water was discovered in the plant rooms below, which was traced back to the RACW water which should have gone to drain. Investigations point to the drainpipe having an open ended vent at a higher level, and it was suspected that the liquor backfilled the drainpipe to a level where liquor discharged from the vent.

Following the reporting of this incident to ONR it was judged that the ONR should undertake an inspection into Magnox Ltd's investigation and subsequent response from a Human Factors perspective. Overall, the ONR inspection agreed with the actions proposed by the Licensee to minimise the risk of recurrence of this incident however a more general improvement in both the quality and adherence to instructions is required to prevent similar incidents elsewhere on the station (a finding from the ONR review of the 2014 PSR). Magnox Ltd has accepted this advice and is undertaking further activities in response to this expectation.

#### Euratom Inventory Change Report

During the monthly production of the Euratom ICR, it was noted that the month end balance for 'N' obligation Pu for the end of March 2015 was negative, which cannot be correct. Magnox Ltd has initiated an investigation into the source of the error, but it is believed to be a historical error. It should be noted that balances for the other 4 obligations have been checked and are correct. The company Euratom expert was consulted in order to identify the actions necessary for the next Euratom return due 15th April.

Investigations determined the actual N Pu balance, for the 49 elements currently category changed prior to shipment. Wylfa will correct the difference in the March report and provide an explanation in the covering letter. Further investigation is planned, by Magnox Ltd, to attempt to identify the source of the discrepancy, however this could be anywhere within its records going back to the start of operations and may prove difficult to confirm. Magnox Ltd believe this should be a one-off correction, and that it will not affect reporting at Sellafield. Euratom accountancy unit E5 has been informed of the situation and the current status.

### 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.

- The following LIs and Enforcement Notices have been issued during the period:

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

Date	Type	Ref No	Description
11/05/2015	Approval	Licence Instrument 563	Magnox Limited proposed to amend the station Operating Rules for the T2op Temperature Limit. The proposal aims to facilitate the operation of Wylfa power station Reactor 1 until the final shut-down on 31 December 2015 or when fuel irradiation of 34.1 GWd/tU is achieved – whichever comes first. The amendments will bring commercial and safety benefits by allowing Wylfa Reactor 1 to operate under the design arrangements after power decreases below 1500 MWth. The Safety Case presents arguments and evidence that the requested amendment will not affect the overall plant safety during normal operation or accident conditions, and that the nuclear and radiological risk for the plant workers and for the public will remain As Low as Reasonably Achievable (ALARP).
1/05/2015	Enforcement Letter	WYF71016	On the 3rd March 2015, ONR inspectors undertook a System Based Inspection (SBI) of Wylfa's fire protection systems that included the radioactive waste transit store at the reactor building 69' level. It was concluded that suitability of this area for storage of nuclear matter appeared to be significantly below the standard expected for compliance with site licence condition 4(2). Magnox Ltd has been requested to undertake a comprehensive review of working practices within the 69' level waste transit store and implement improvements to meet regulatory expectations.

Reports detailing the above regulatory decisions can be found on the ONR website at <http://www.onr.org.uk/pars/>.

## 5 NEWS FROM ONR

The ONR Annual Report and Accounts for 2014/15 was laid in Parliament on the 29 June. This presents the key developments during ONR's first year as a Public Corporation including:

- Progress against ONR's Annual Plan;
- The Chief Nuclear Inspector's annual statement on the safety and security performance of the nuclear industry;
- A summary of ONR's governance arrangements; and
- Details of ONR management arrangements and how resources have been utilised.

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>).

## 6 CONTACTS

Office for Nuclear Regulation  
Redgrave Court  
Merton Road  
Bootle  
Merseyside  
L20 7HS

website: [www.onr.org.uk](http://www.onr.org.uk)

email: [ONREnquiries@onr.gsi.gov.uk](mailto:ONREnquiries@onr.gsi.gov.uk)

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